



The World Is Connected: The Store Must Be Too

Benchmark Report

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Executive Summary

Key Findings

Retailers are under tremendous pressure to integrate the store into a complex selling environment that is data-centric in nature. Increased communication between management and employees, digital twin technologies throughout the enterprise, network-centric applications, customer and employee access to the internet via the corporate network, a constant flow of new data types over the network (video data, IoT data, etc.) – the list of demands keeps growing. All of these operational capabilities make significant demands on a retailer's network. As a result, retailers need a network roadmap that they are in control of for a dynamic and well-managed network that can grow with the business.

At the same time, as more shopping occurs online, consumers don't see any distinction between a merchant's digital selling environment and the store. What they experience in one they expect in the other.

A network that provides connectivity for both consumers and the advancement of store operations – both in front of consumers and in the hands of employees – is key to helping them connect in a meaningful way. Retailers also know that against the backdrop of staffing shortages, disappearing inventory, and consumer appetite for instant gratification, there must be modern technology and connectivity to power store operations, streamline key functions to create an “always on” model. They are constantly looking for ways to reduce costs and improve margins. This, of course, comes with its own set of challenges and opportunities, many of which relate to the network supporting these technologies. Some of the key findings of this report:

- 92% of retailers want to use more company-owned consumer-grade mobile devices throughout their store operations (for tasks ranging from pricing and inventory management to loss prevention). More screens are coming to every store that wants to survive 2024.
- The influx of these mobile devices (and future generations of devices to come) will significantly tax retailers' already-constrained in-store networks. As it stands, three out of four retailers say they need to be able to add bandwidth and access points at the speed of business, while 57% describe their current network as “good enough” – hardly a harbinger of future-ready status.
- The best performers, defined by total revenue and growth, (Retail Winners) have a far greater understanding of the need to futureproof their stores. They are also far more cognitive of the vital role Wi-Fi will play in enabling an enhanced store experience, for everything from the goods they sell (temperature monitoring, inventory management) to checkout (order fulfillment, self-scanning), and, if necessary, returns management. An efficient and engaging store experience is an enormous part of how store-based Winners compete with Amazon, and Winners know just how vital their network is to that offering.

Based on our data, we also offer several in-depth and pragmatic suggestions on how retailers should proceed. These recommendations can be found in the **Bootstrap Recommendations** portion of the report.

We certainly hope you enjoy it,

Brian Kilcourse and Steve Rowen

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Research Overview

Managing The Store: Today, Tomorrow, And For As Long As Possible

In recent times, much has been written – some of it by us – about the future of the store. But what has long separated our writings from those of most others is rooted in one of our **core** beliefs: people like stores.

Of course, people love to shop online. And, of course, shoppers have rapidly grown accustomed to many of the functionalities – and the accompanying *behaviors* – that can only exist in the digital realm. But whereas others gleefully prognosticate about the death of stores, we have insisted – and will continue to insist – physical stores aren't going anywhere. Some will die off. Some will be born anew. The rest will be *required to profoundly alter much of what they currently look and feel like*. But at a fundamental level, people will always want to shop in a physical store.

Our research (and store sales) has proven correct. However, in order to play on, smart retailers know their stores *can no longer be what they've been*. They must become far more relevant to the modern shopper than just some box that sells previously unknown (or unboxed, reviewed, and compared-on-YouTube) wares. And in order for that transformation to take place, that means stores are going to have to lean into technology, and that all starts with connectivity.

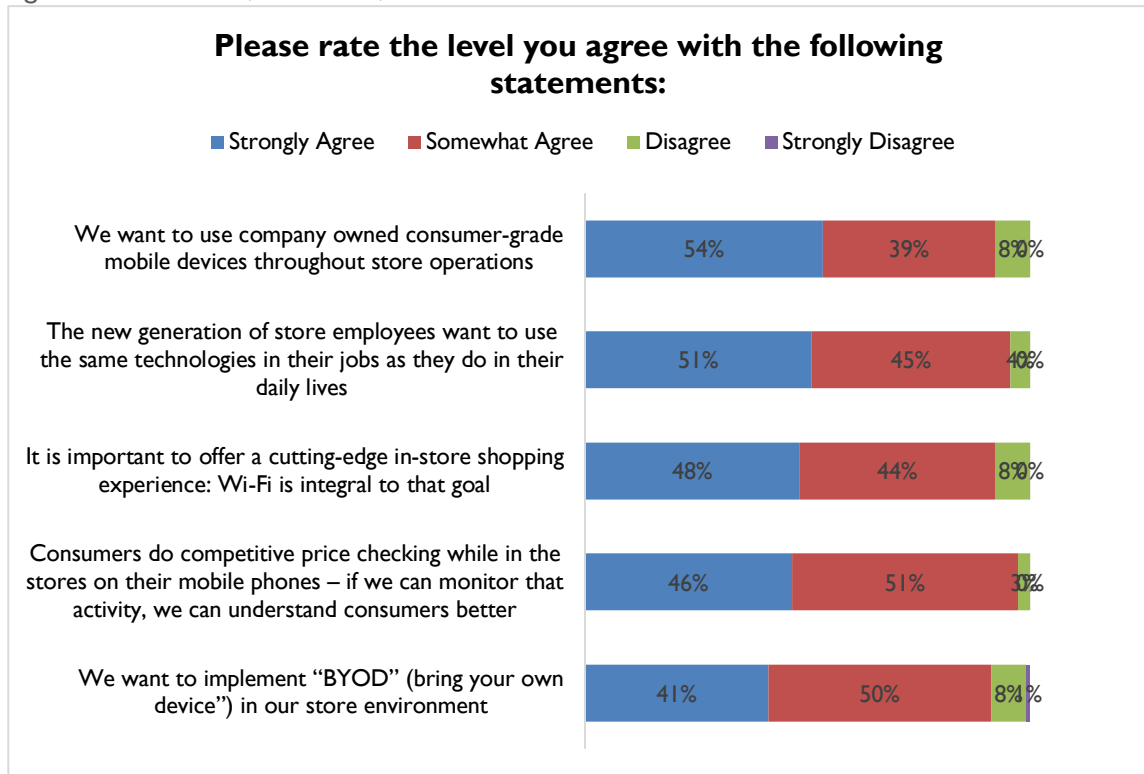
Retailers know that the future is all about connecting with shoppers where they live – **on their phones**. Just a few years back, we may have been talking about this phenomenon as connecting with consumers on their smart mobile devices even while they are in store. Today the context is especially while they are in store. And, in our viewpoint, it's going to take a lot of those very same consumer-grade devices in the hands of employees to make it happen.

But let's not be prognosticators. Let's see what retailers have to say on the matter.

The Real World Explained

First things first: where do retailers think stores are headed in the very near term? We put forward some potential scenarios and asked what they thought (Figure 1). The answer, in short, confirms our theory. The way to return stores to relevance has everything to do with consumer-grade smart mobile devices.

Figure 1: Screens, Screens, Screens



Source: RSR Research, December 2023

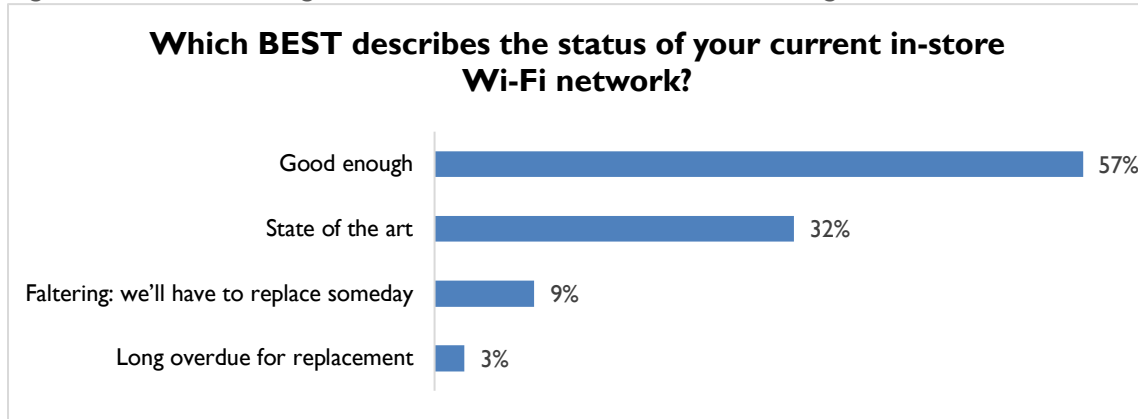
Retailers want more screens in store, and they also know they need to use them in much smarter ways than they currently do. This means adopting more of the exact same tools we all use daily – but utilizing them in business means throughout the entirety of their store operations. Consumer-grade smartphones in the hands of store managers, greeters, stockers, pricers, cashiers, secret shoppers – even loss prevention staff – to handle enterprise-level functionality on consumer-grade devices (and at consumer-grade price points). “Retail-hardened devices” no longer have much of an audience among retail respondents. They want heavy-duty operational functionality without the specialized devices (or price tags) of yesterday.

At the same time, they want to be monitoring what customers are doing on *their* phones while moving throughout the store. It’s a core component of how they hope to better understand customers.

There is a fundamental prerequisite to doing any/all of this, however: bandwidth. A simple shopping trip to one’s favorite retail location will likely reveal a harsh reality: there’s not enough of it to support current-day mobile activity – to say nothing of what future demand will require.

It is therefore hardly shocking to see that our retail respondents, rarely accused of living at the bleeding edge of the technological revolution, have not prioritized their network capability appropriately. At least not en masse (Figure 2).

Figure 2: Good Enough Is Pervasive, And Not Good Enough



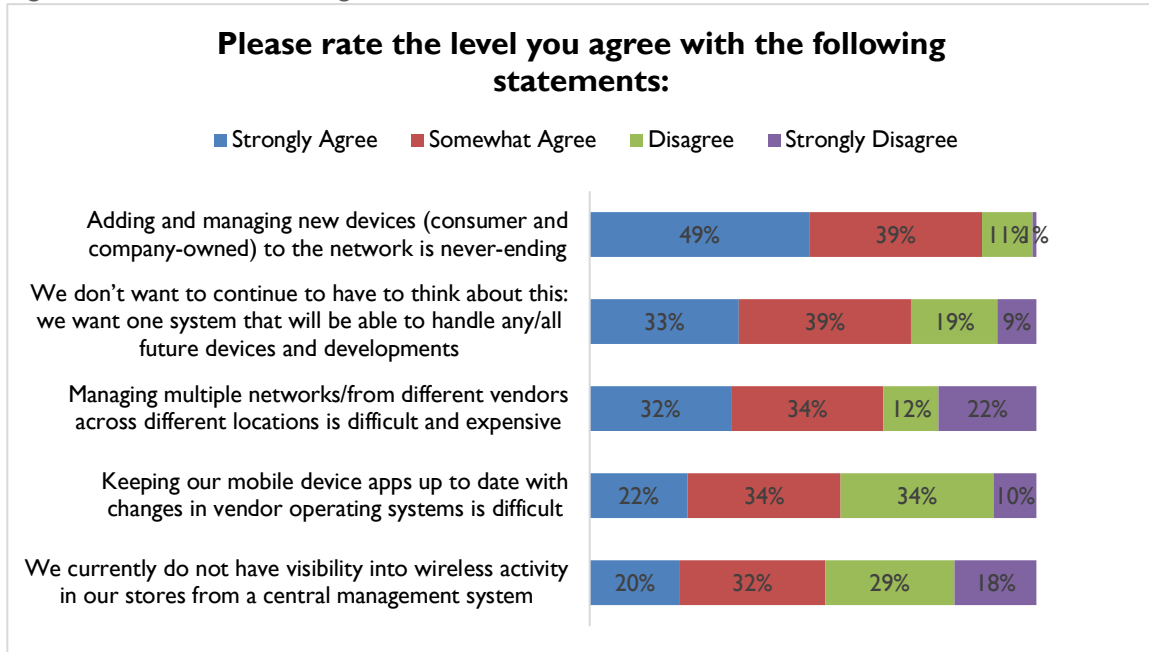
Source: RSR Research, December 2023

If “perfect” is often accused of being the enemy of good, “good enough” may well be the enemy of capable. A Wi-Fi network that is dubiously deemed good enough for a store today will *absolutely* be overpowered by the needs of tomorrow, a case that will only be made clearer as the data of this report unfolds. Indeed, as this report confirms, retailers have lofty designs for more mobile-centric experiences and network-dependent technologies in their stores. Their networks will need significant upkeep and upgrade to support such goals.

Endless Endeavor

Our retail respondents are also fully aware of the endless nature of their current pursuit. The only constant with customers will continue to be change, and shoppers are at no risk of slowing their desire for – and use of – increasingly powerful mobile technologies. Additionally, with the investment in new technology, there is a significant opportunity to streamline store operations and efficiencies. In the race to keep up with customers and provide a relevant experience, shoppers will always be several steps ahead. The trick for retailers to preventing them from disappearing out of sight is to equip employees with the *closest thing possible*, technologically, to the *very same tools* modern shoppers are using (Figure 3).

Figure 3: No Such Thing As A Finish Line



Source: RSR Research, December 2023

What makes Figure 3 so interesting, however, is not just retailers' comprehension of the struggle they find themselves in: after all, retailers have always been in something of a foot race against faster-running shoppers. And while it is true that consumer use of mobile devices has turned this *foot race* into more of an *arms race*, the more interesting data in Figure 3 is in retailers' attitudes about the challenges that lie beneath. Regardless of what happens in the future, retailers want their investment in technology to withstand new challenges – whatever those challenges might be. Should the next big thing in consumer-grade tech be wearable technologies, augmented reality, holographic displays – retailers don't care. They just want their next investment in networks to be able to handle its needs.

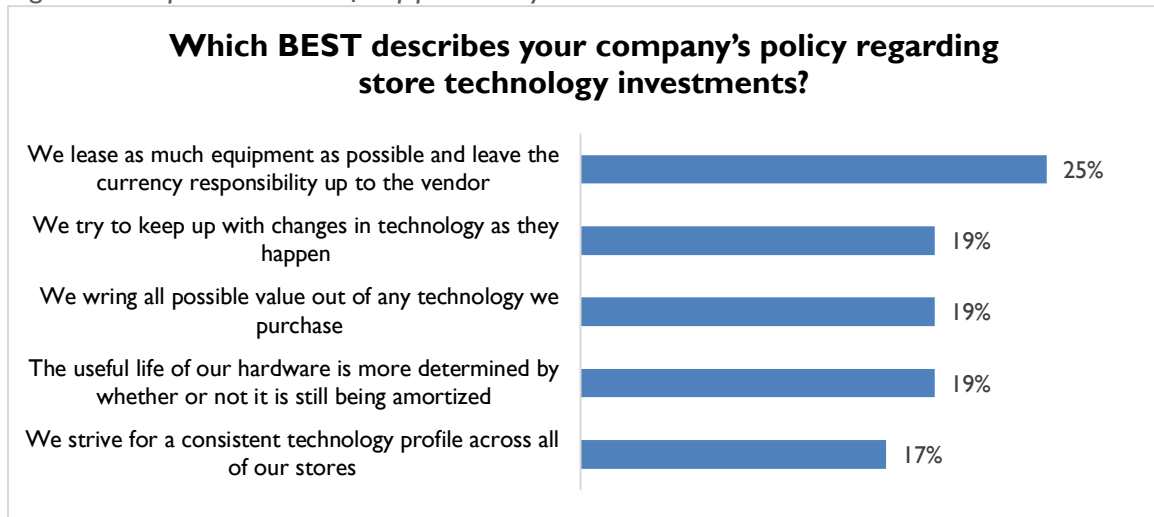
At the same time, they are clear they don't want multiple vendors or networks involved. Regardless of how geographically disbursed they may be, they have little appetite for managing multiple networks across varying locations.

From an initial view, it appears retailers are looking to invest in their networks, to invest wisely, to invest singly, and then to move on to other priorities.

Life Of The Party

When asked about company policy towards tech investment, retailers are again clear: most will lease everything they can. When that's not an option, they'll ring every last drop of functionality out of their purchases, especially if those investments are still being amortized (Figure 4).

Figure 4: Up To Date? If Opportunity Allows



Source: RSR Research, December 2023

Another point worth highlighting from Figure 3, above, is that consistency from one store's technology profile to another yields the lowest response from our retail respondents. This is highly instructive, as just moments ago we saw that retailers are fed up with the expense of managing multiple systems from multiple vendors across multiple stores.

It is no wonder only 17% identify this as the best descriptor of their current store tech investment policy. Something's got to give.

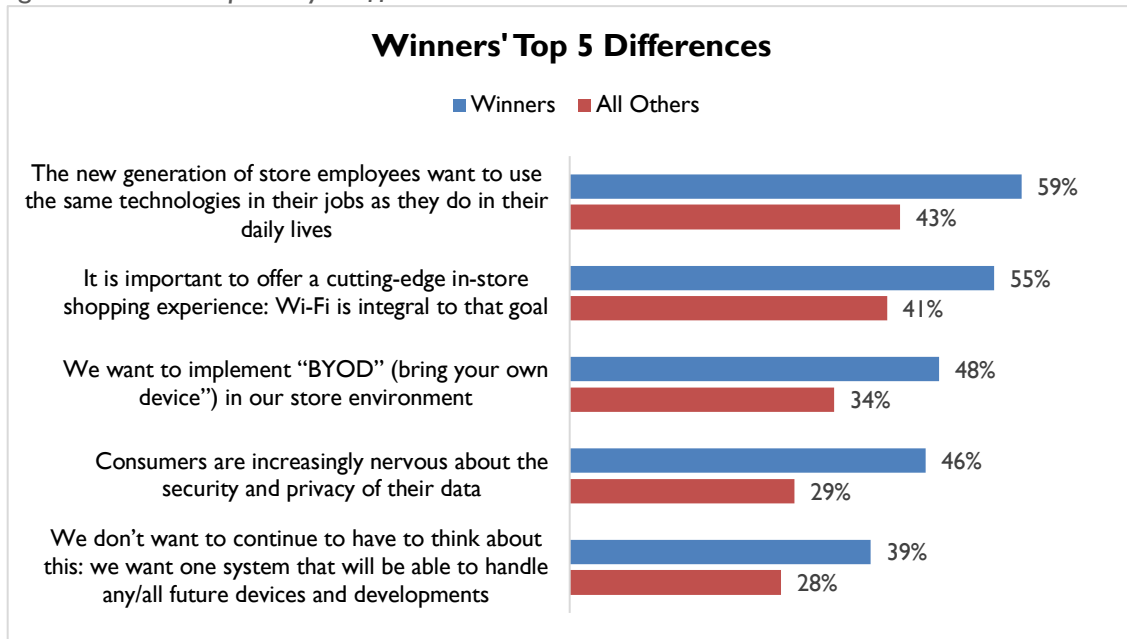
Retail Winners and Why They Win

In our benchmark reports, RSR quite frequently cites differences between retailer over-performers in year-over-year comparable sales and their competitors. We find that consistent sales performance is an outcome of a differentiating set of thought processes, strategies and tactics. We call sales over-performers "Retail Winners."

RSR's definition of these Winners is straightforward. Assuming industry average comparable store/channel sales growth of **7 percent**, we define those with sales above this hurdle as "Winners," those at this sales growth rate as "average," and those below this sales growth rate as "laggards" or "also-rans."

One trend that will emerge throughout this report is that Retail Winners don't just do the same things differently, they tend to do very different things. They tend to view challenges differently, and in many cases, apply far more urgency to emerging issues than their average and lagging competitors. Figure 5 is a perfect example of this.

Figure 5: A Completely Different View



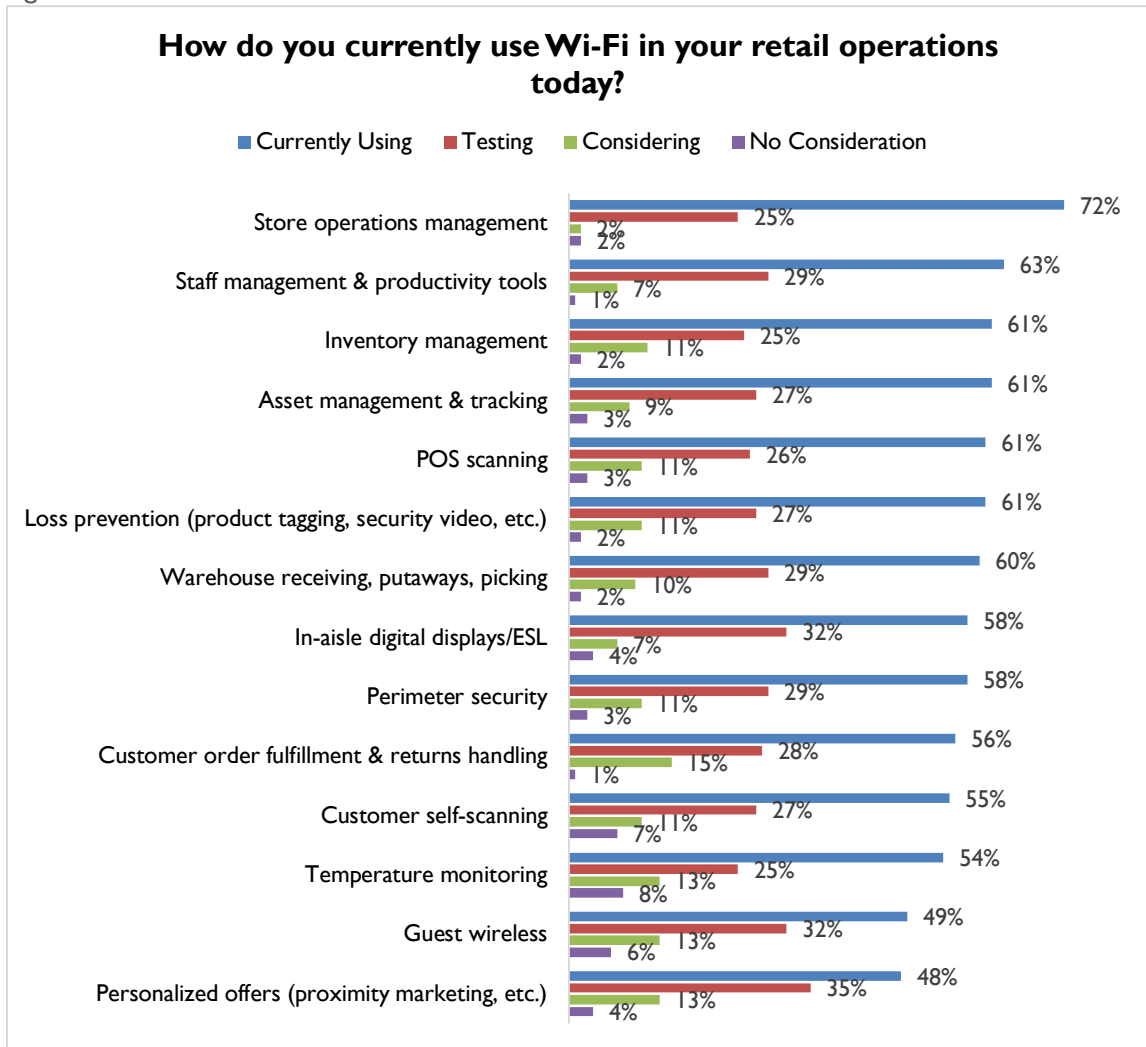
Source: RSR Research, December 2023

This chart examines some of the data we've already seen in Figures 1 and 3 but viewed through the lens of performance. As is evident, Winners place a higher priority on virtually everything we've seen so far. They are more insistent that employees should use the same technologies at work that they already use in their personal lives. They think it is more important to offer a cutting-edge shopping experience in store and are more aware of the role a capable Wi-Fi network plays in that possibility. And they are more interested in putting this issue to bed, once and for all. Quite simply, Winners "get it" at the highest levels of the discussion.

Omnipresent In No Time Flat

In order to understand where retailers want to take the future of their stores, we must first understand what their in-store technology profile looks like today. As Figure 6 reveals, they have grown highly dependent on Wi-Fi-reliant tools to solve for all kinds of store-related issues and have become so in seemingly no time flat.

Figure 6: From Zero To Hero



Source: RSR Research, December 2023

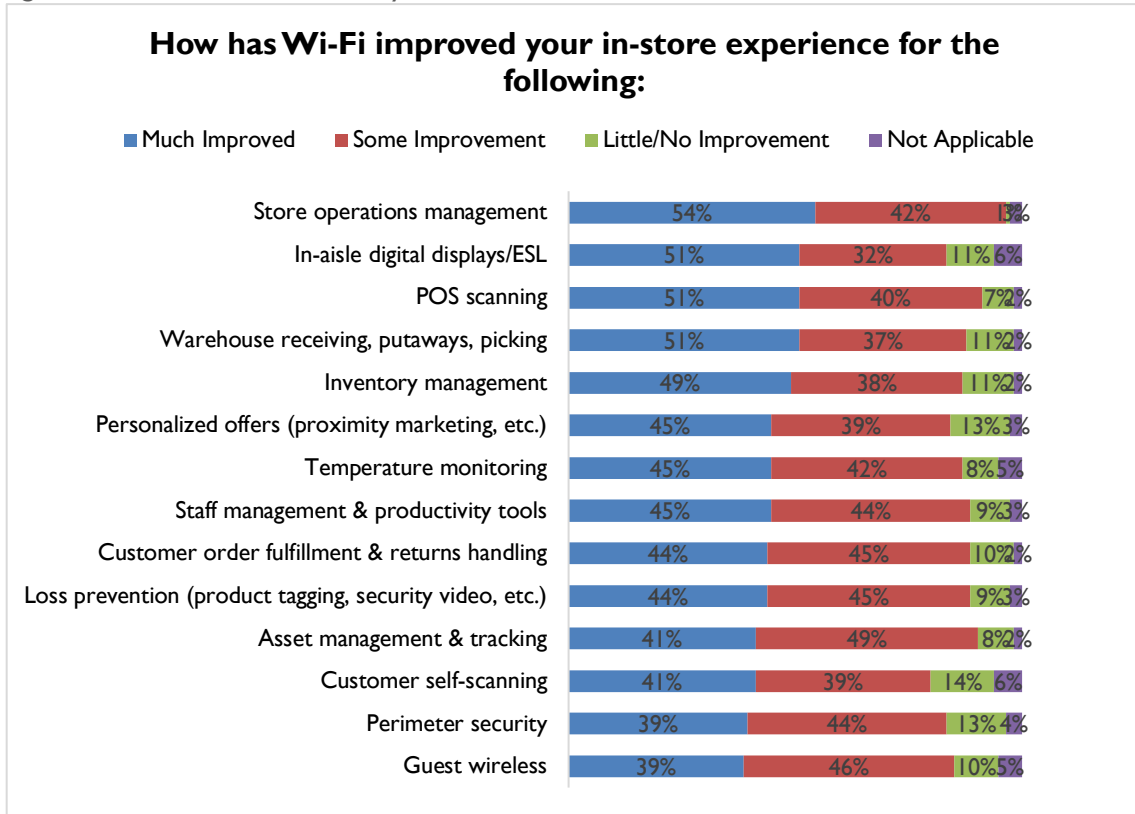
What Figure 6 really does is serve as testament to how quickly our industry has adopted Wi-Fi-enabled solutions to solve age-old store management issues. Just a decade ago, virtually none of these tasks – perimeter security, inventory management, customer-order fulfillment and returns handling – would have been managed across a wireless network. Today, not only are retailers deploying all of the options we put forward across a wireless network in their stores, but only two of the 14 options we put forth (guest wireless and proximity marketing) are actively in daily use by less than half of our respondents. And even for those – a third of the retailers who aren't already deployed are currently testing their use in stores.

Wi-Fi isn't just everywhere; it's the cornerstone on which retailers plan to build everything for their stores going forward.

Taken For Granted

In consideration of how much – and how quickly – retailers have leaned on Wi-Fi to power the tools they need to give their stores a fighting chance of being relevant, it's quite remarkable how little due they seem willing to give (Figure 7).

Figure 7: Heros Don't Always Get Their Due



Source: RSR Research, December 2023

Barely more than half of retailers say their store operations management has been much improved by Wi-Fi, a somewhat stunning lack of awareness seeing how virtually every store-critical capability listed in the previous chart (Figure 6), was made possible by wireless networks.

There are many adages about how quickly valuable things get taken for granted once they've been introduced to mankind; in aggregate, reliable, business-worthy Wi-Fi appears to have joined that list.

Winners Know Better

In an encouraging turn of events, Winners reveal a deeper understanding of the importance of this underlying technology; Figure 8 shows the very same data as the previous chart, only this time viewed through the lens of performance.

Figure 8: Winners Recognize What They Have



Source: RSR Research, December 2023

Across the board, from the moment a customer visits a store (perimeter security), to the temperature of the store, itself – and the goods being sold – (temperature monitoring, inventory management), to the point of checkout (order fulfillment, self-scanning) and ultimately, to a return, if necessary (returns handling): Winners “get it”. They know just how much Wi-Fi has enabled that enhanced store experience. An efficient and engaging store experience is an enormous part of how store-based Winners compete with Amazon, and Winners know just how vital the network is to that offering.

Now let’s find out how much these high-level findings extend to the nittier and grittier components of the Business Challenges at hand.

Methodology

RSR uses its own model, called The BOOT Methodology[®] to analyze Retail Industry issues. We build this model with our survey instruments. See [Appendix A](#) for a full explanation.

In our surveys, we continue to find the kinds of differences in thought processes, actions, and decisions cited above. The BOOT helps us better understand the behavioral and technological differences that drive sustainable sales improvements and successful execution of brand vision.

Survey Respondent Characteristics

RSR conducted an online survey from September-October 2023 and received answers from 114 qualified retail respondents. Respondent demographics are as follows:

- **2022 Revenue (US\$ Equivalent)**

\$100 million - \$499 million	29%
\$500 million - \$999 million	39%
\$1Billion to \$5 Billion	24%
Over \$5 Billion	8%

- **Products sold:**

Fast moving consumer goods	18%
Apparel, footwear and accessories	31%
Hard goods	28%
General merchandise	17%
Hospitality, retail services, entertainment	6%

- **Retail Presence:**

	<u>Retail Presence</u>
USA	98%
Canada	29%
Latin America	10%
UK	20%
Europe	17%
Middle East/Africa	5%
Asia/Pacific	8%

- **Year-Over-Year Sales Growth Rates** (assume average growth of 7%):

Worse than average (“Laggards”)	10%
Average	41%
Better than average (“Retail Winners”)	49%

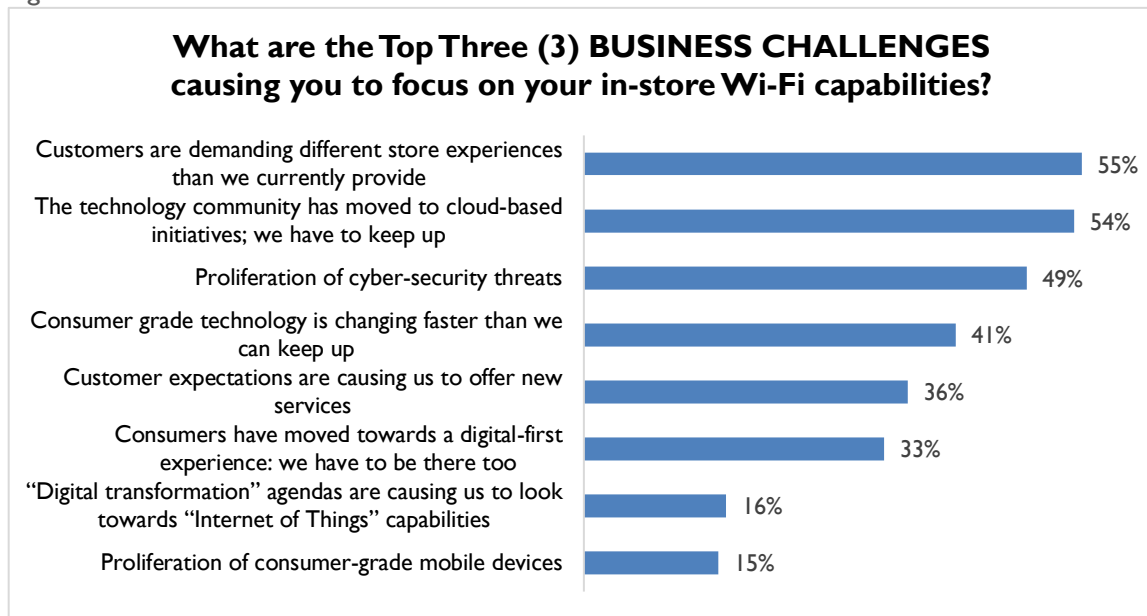
Business Challenges

All In This Together

Since our inception in 2007, RSR has asked retailers to self-identify the external challenges pressing in on them from the outside world in every survey we've undertaken. While there are differences from one area of study to another (challenges associated with merchandising vs challenges associated with loss prevention example), they do tend to be ubiquitous *within* a given topic.

Indeed, at any given point in time, external challenges tend to be ubiquitous across retailers regardless of their size, the products they sell, or their location in the world. Put simply, what challenges one challenges all, and as Figure 6 shows, when it comes to the store, retailers – everywhere – are challenged by three main things: customers demanding a different store experience than they currently provide, tech vendor's incessant march towards cloud-based solutions, and the proliferation of cybersecurity threats that are associated with that reality (Figure 9).

Figure 9: The Time Traveler's Conundrum



Source: RSR Research, December 2023

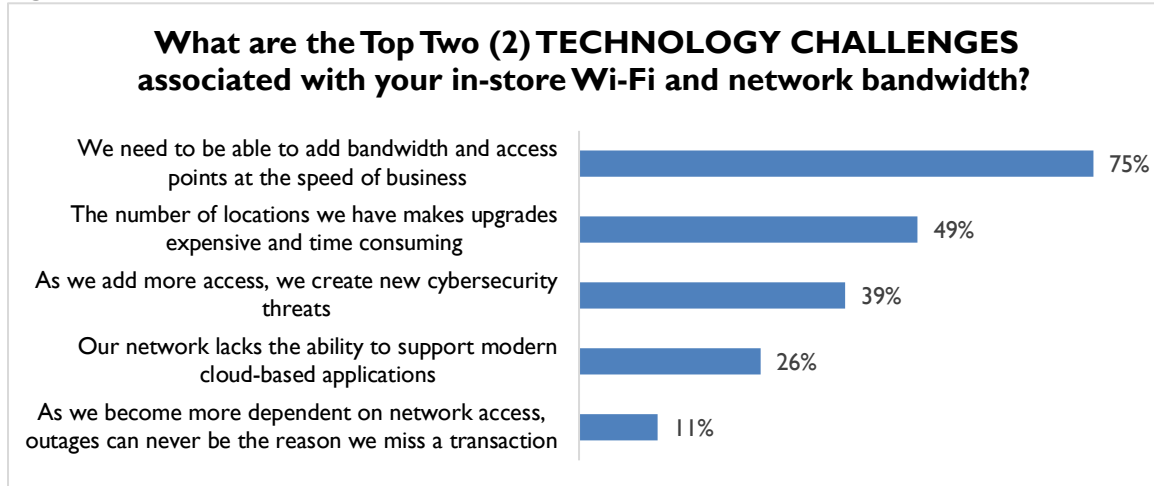
Of course, customers *are* demanding a different in-store experience than most retailers currently provide, and as consumers, each of us knows this to be inarguable. Visit a store – even a favorite store – and assess it honestly. Is there much within its four walls that is reflective of the current date on the calendar? Apart from the merchandise on offer, there is very little (if anything) about in-store technology that would make most modern stores confusing – or even difficult to navigate – for a time traveler from 2003.

What *would* startle a time traveler from 2003, however, would be what the **shoppers are doing** in any given store today. From a high fashion house to a dollar store and everything in between, shoppers are engaging in behaviors that would be curious to the 2003 shopper, and downright

mind-bending to the time traveler from 1983. Meanwhile, the store itself would likely seem comfortably familiar. This is not a reality retailers should celebrate.

Customers use smart mobile devices in every part of their journey. They use powerful technology to research products, watch comparison videos, compare prices, locate items – oftentimes not just by zip code or store location but to within a few feet within a store itself – even to service the sale of their final purchase. Technology has changed all but the shopper’s very DNA, while the store experience remains virtually stuck in time.

Figure 10: More, More, More



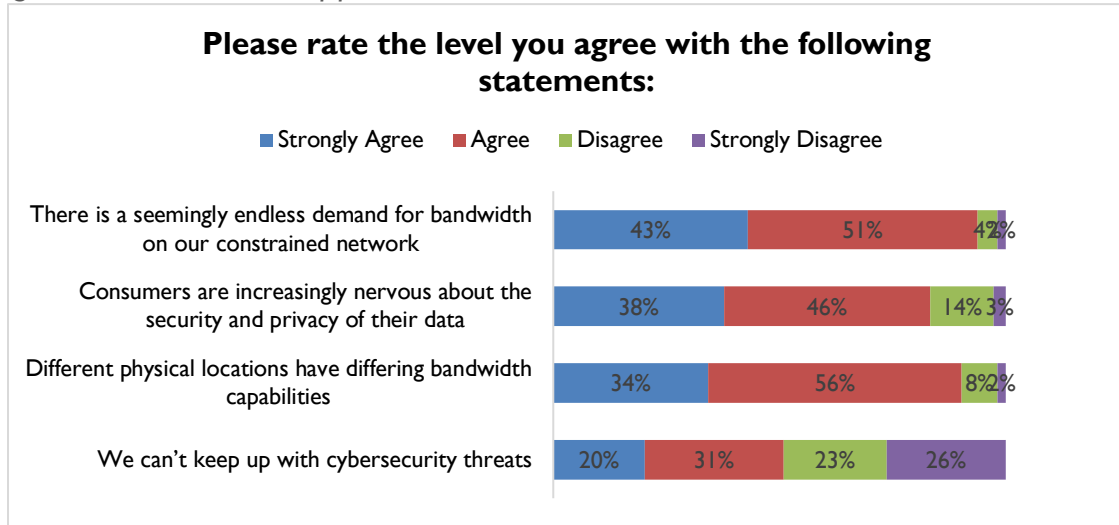
Source: RSR Research, December 2023

Fully three out of four of the retailers we queried say they need to add bandwidth and access points just to keep up with the speed of business as is. The modern network is the backbone of so much of what retailer utilize for the day-to-day operations: Point of Sale (POS) systems, security cameras, electronic shelf labels, self-checkout scanner – all are reliant on a stable, reliable network.

A Familiar Refrain

Based on everything we’ve seen so far then, it only stands to reason that when push comes to shove, retailers are **acutely aware** of the demands being put on their existing networks.

Figure 11: Insatiable Appetites



Source: RSR Research, December 2023

Ninety four percent of retailers say the demand is “seemingly endless”, and with networks already constrained, advances in new store AND consumer technologies (and the accompanying increased use of both) will only make matters worse – if retailers don’t act soon. What’s just as important as the top data point in Figure 8 above, however, is the second data point: 83% of retailers agree that customers are increasingly nervous about the security and privacy of their data — 38% of them strongly.

What makes this data so interesting is that a quick internet search will immediately present data to convincingly support *or* refute the notion that customers increasingly care about the privacy and security of their data. That data is on hand is confusing, at best, often skewed by the demographics of the people being surveyed – their age, geography, or social status – but even more frequently by the data’s overall integrity. People might report caring about their privacy in a questionnaire, but do their digital behaviors betray that belief system? Are they even aware of how their digital behaviors are being utilized? And when pressed to choose between a digital convenience once they’ve adopted it, would the reality of the privacy/security trade-off be enough to convince them to give it up?

Nonetheless, perception *is* reality. And, in this case, retailers are convinced that customers **do** care. And in the real world, that means the next generation of networks they evaluate – which they report needing desperately to meet customer demand – must speak convincingly to their ability to address security and privacy capabilities.

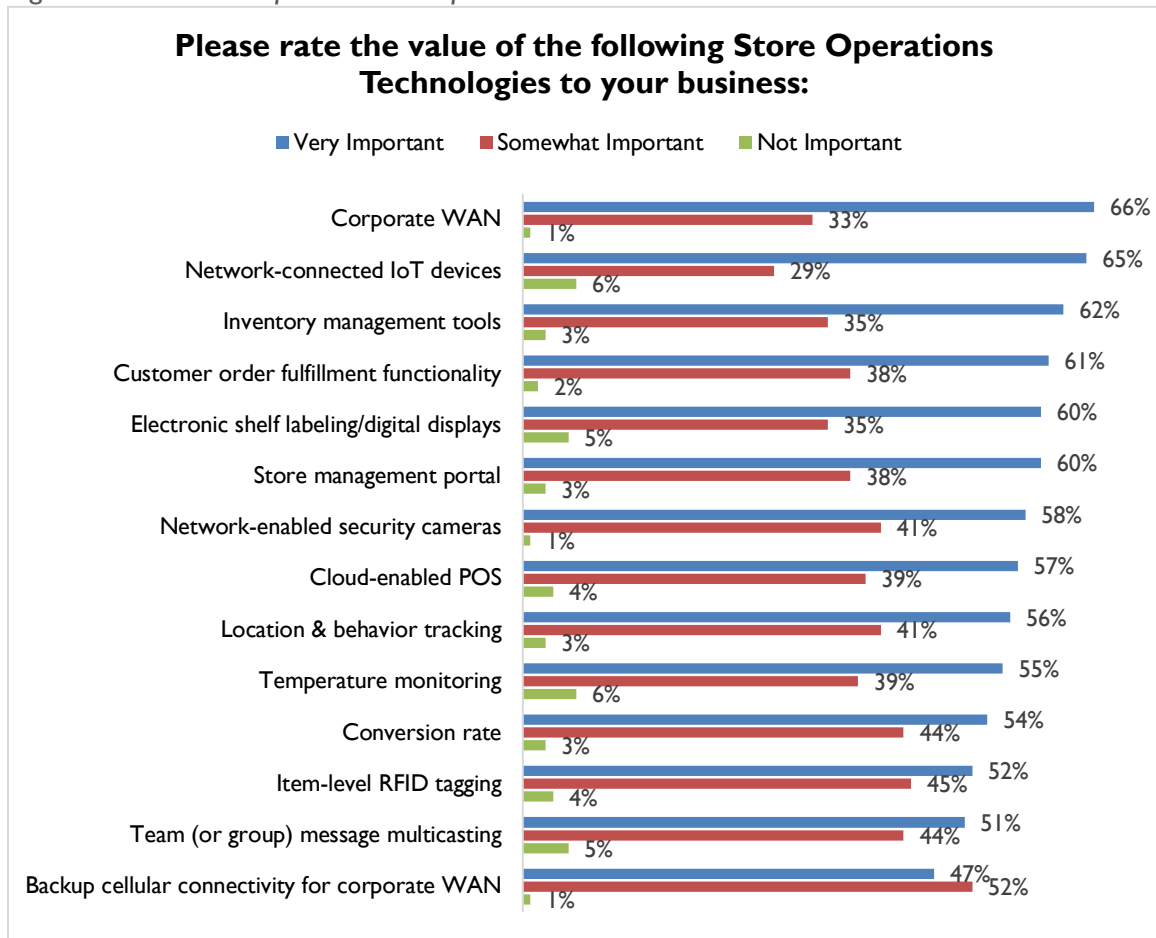
Now let’s examine where retailers see the biggest opportunities to improve.

Opportunities

Opportunities Abound

We asked our retail respondents to evaluate which technologies would help them with their store operations the most. As Figure 12 shows, they see real promise in every option we put forth, but with particular interest in – first and foremost – a corporate wide area network.

Figure 12: Store Ops: More Important Than Ever

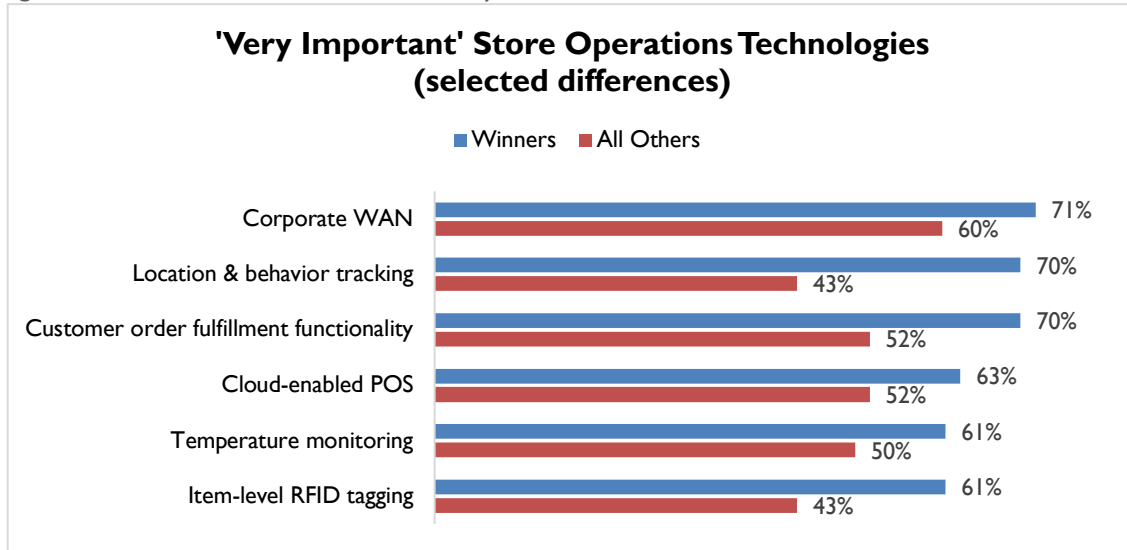


Source: RSR Research, December 2023

Put simply, retailers have their priorities straight. They have prioritized a powerful network above all else, all while finding things that would operate on that network (cloud-based POS, better ability to track customers' movements throughout the store, digital displays at the shelf edge) fascinating – but secondary.

The story only gets stronger when viewed through the lens of performance (Figure 13).

Figure 13: Winners Show The Way Forward



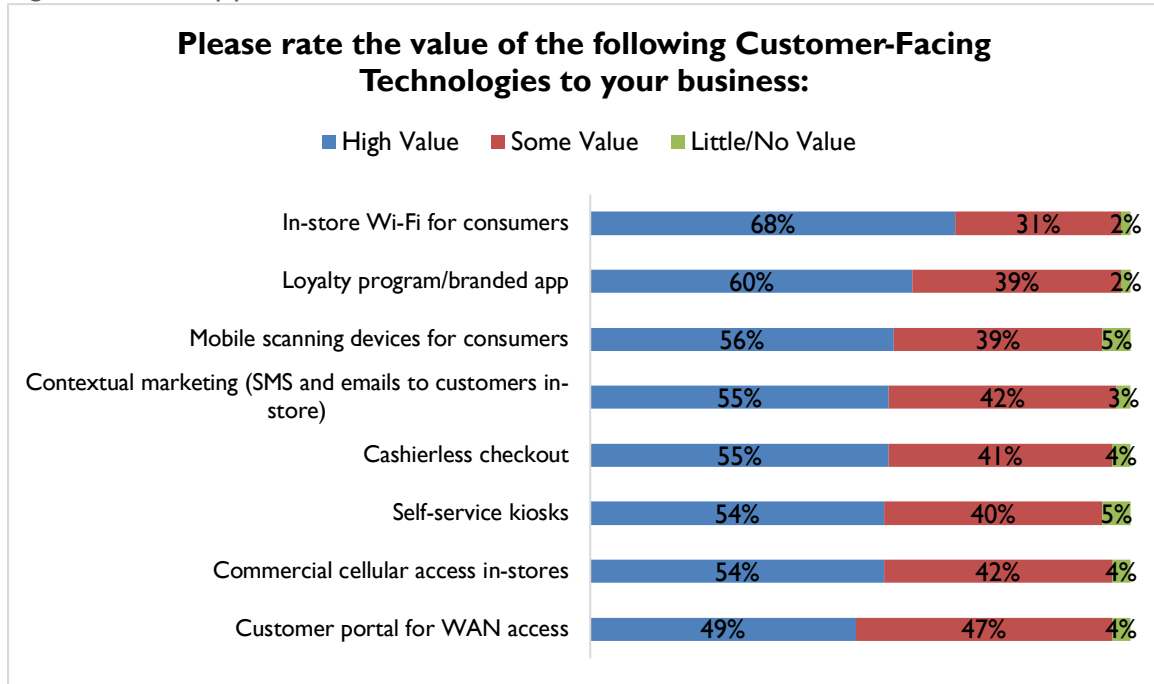
Source: RSR Research, December 2023

The best performers see an even greater opportunity to improve their store's readiness to serve increasingly demanding customers via the corporate WAN. The highest ranked tertiary ride-alongs on that network were: (1) the ability to better monitor temperatures – especially important for retailers selling chilled and frozen goods – and eliminate spoilage (to save thousands to millions of dollars per year), (2) tracking how customers' orders are being fulfilled, and (3) understanding how products and people move throughout the store. This could ultimately provide retailers with new ways to lower operational costs, improve margins and unlock new revenue streams. The opportunities are plentiful.

The Benefits to Shoppers

When our line of inquiry turns to the technologies retailers most value that are customer-facing, a familiar refrain emerges. Retailers are enamored with a lot of the choices we put before them (the ability to scan items as they shop, tech-enabled kiosks for product information and interaction, cashier less-checkout). All are subordinate to their top priority: in-store Wi-Fi for customers (Figure 14).

Figure 14: Shoppers Need A Network, Too

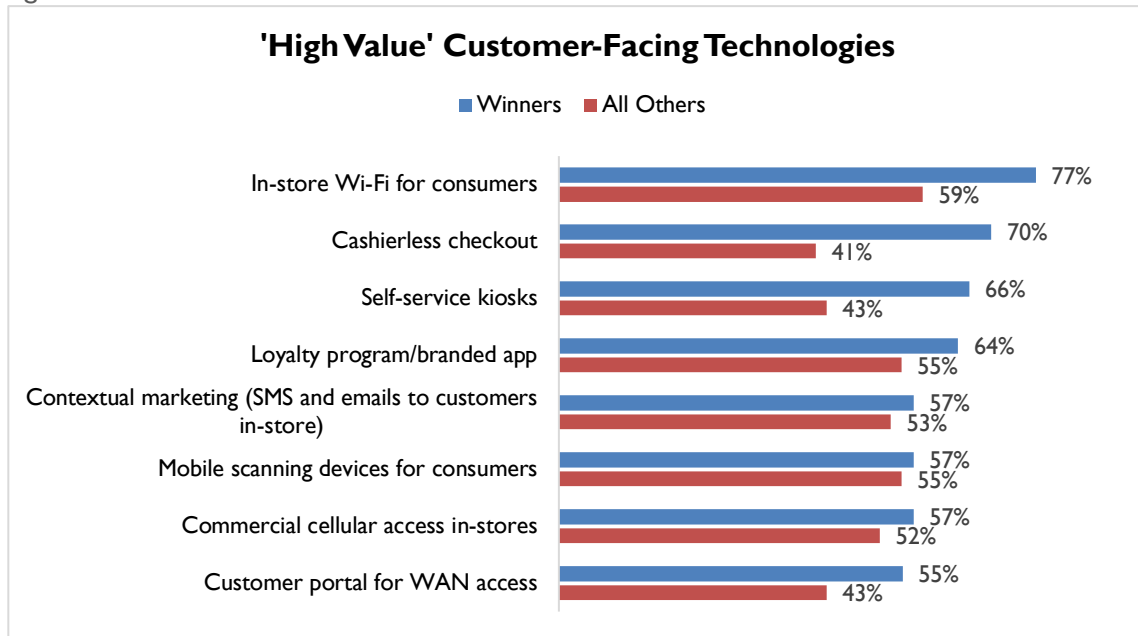


Source: RSR Research, December 2023

Winners, of course, value these things even more (Figure 15). Put simply, retailers – particularly the best retailers – no longer worry that better in-store Wi-Fi means shoppers will be using their real estate as a 3D comparison grounds for their Amazon shopping cart. Instead, they know customers are demanding strong Wi-Fi almost as an entitlement. In its absence, they will simply take their business elsewhere.

Retailers also recognize opportunities to generate operational advantages for themselves. At a time when theft, loss prevention, and employee shortages dominate the headlines, new technologies offer new ways to assist ways unthinkable just a short time ago. And, of course, each of these new technological wonders is (and will be) network-dependent (Figure 15).

Figure 15: Winners Want More For Their Customers



Source: RSR Research, December 2023

Leaning into innovative technology offers real benefit: limiting theft, losses, navigating staffing shortages, better understanding customer preferences – technology has played a critical role in automating key store functions and providing improved store operations and consumer experiences.

But, as always, there are bound to be internal roadblocks that prevent them from taking action. It is now time to find out what those internal obstacles to forward progress are.

Organizational Inhibitors

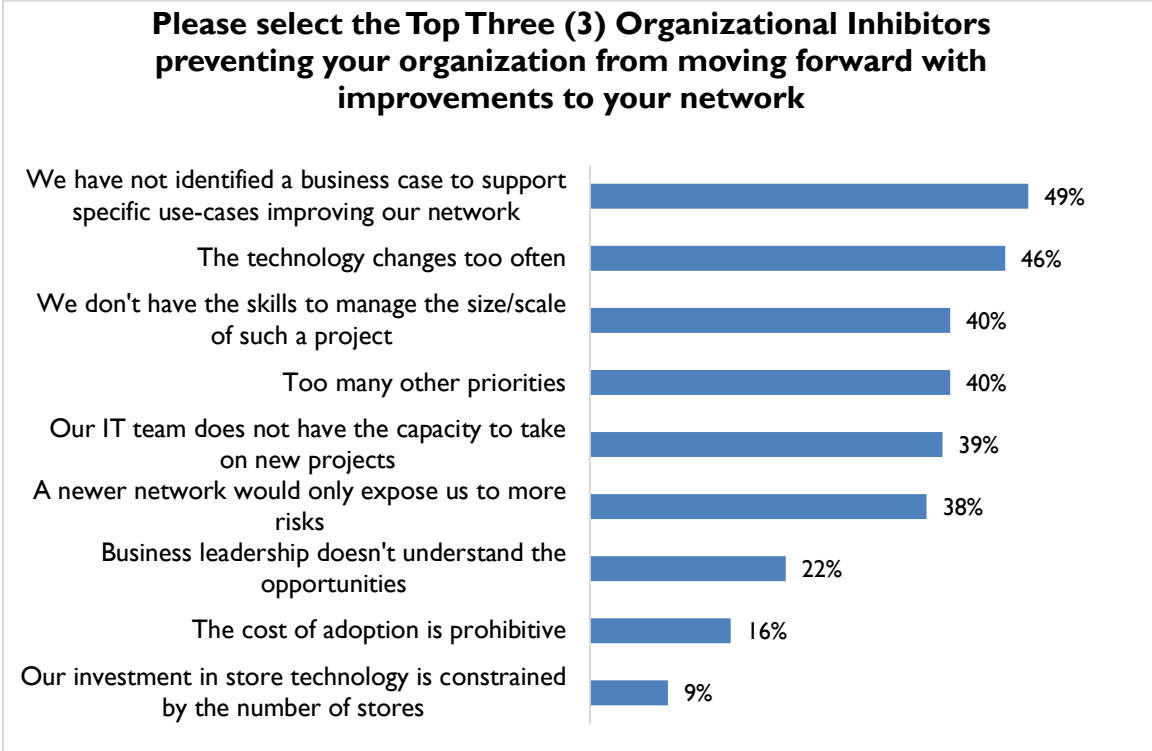
It Wasn't Important – Until It Was

In RSR benchmarks, we typically find three internal roadblocks to technology adoption: (1) a perception that the new solution won't integrate well with the current technology or can't be supported by the IT organization, (2) the ROI for the solution isn't sufficiently compelling, and (3) the executive team doesn't see the need.

The importance of Wi-Fi in stores is an issue that has crept up over time. Arguably before the widespread consumer adoption of always-connected "smart" mobile devices like the iPhone (2007), almost all Wi-Fi access in stores was via company-owned devices and used for operational tasks such as merchandise management. But consumer adoption of "smart" mobile devices created two new possibilities for retailers: (1) to enable employees to use their own devices for work tasks, and (2) to enable consumers to have access to the "digital" side of the selling environment (e.g. the Ecommerce platform).

New consumer digital shopping behaviors triggered by "omnichannel" has only exacerbated the situation. Retailers know that consumers can and will use cellular networks while they are in the store to look up product information, read reviews, and check competitive prices. The question for them is, why not facilitate those activities by encouraging consumers with Wi-Fi? Retailers need to identify strong use cases to justify the technology investment necessary (Figure 16).

Figure 16: Waiting For A Compelling Use Case



Source: RSR Research, December 2023

But internal considerations may not matter as much as competitive pressures do. Retailers like Target began offering customer Wi-Fi access in the earliest days of "omnichannel" shopping (2012),

and the concept has only grown in popularity with other big retail brands since then (e.g. Best Buy, Lowes, Walmart, Macy's, and Nordstrom, in addition to fast food shops like Starbucks, McDonalds, Panera, etc.). Retailers that offer the capability are realizing several benefits:

- When consumers sign on to the Wi-Fi network, they provide information that enables better customer segmentation.
- Customer connectivity to the corporate network via Wi-Fi creates new opportunities for interaction in the store.
- Customer Wi-Fi access creates a real-time link between a store shopper and the company's CRM system to deliver targeted value.
- Store apps can help shoppers easily identify promotions, sales, inventory, rewards.
- Connected consumer mobile devices make it possible to better analyze store performance (e.g. foot-traffic heatmaps).

Meeting Consumer Expectations

When we asked retailers to identify how to get around organizational resistance to making Wi-Fi universally available in the stores, responses seemed to center on creating the ability to observe and analyze mobile traffic in the stores, to better understand what's important.

Figure 17: Pushed Into Action



Source: RSR Research, December 2023

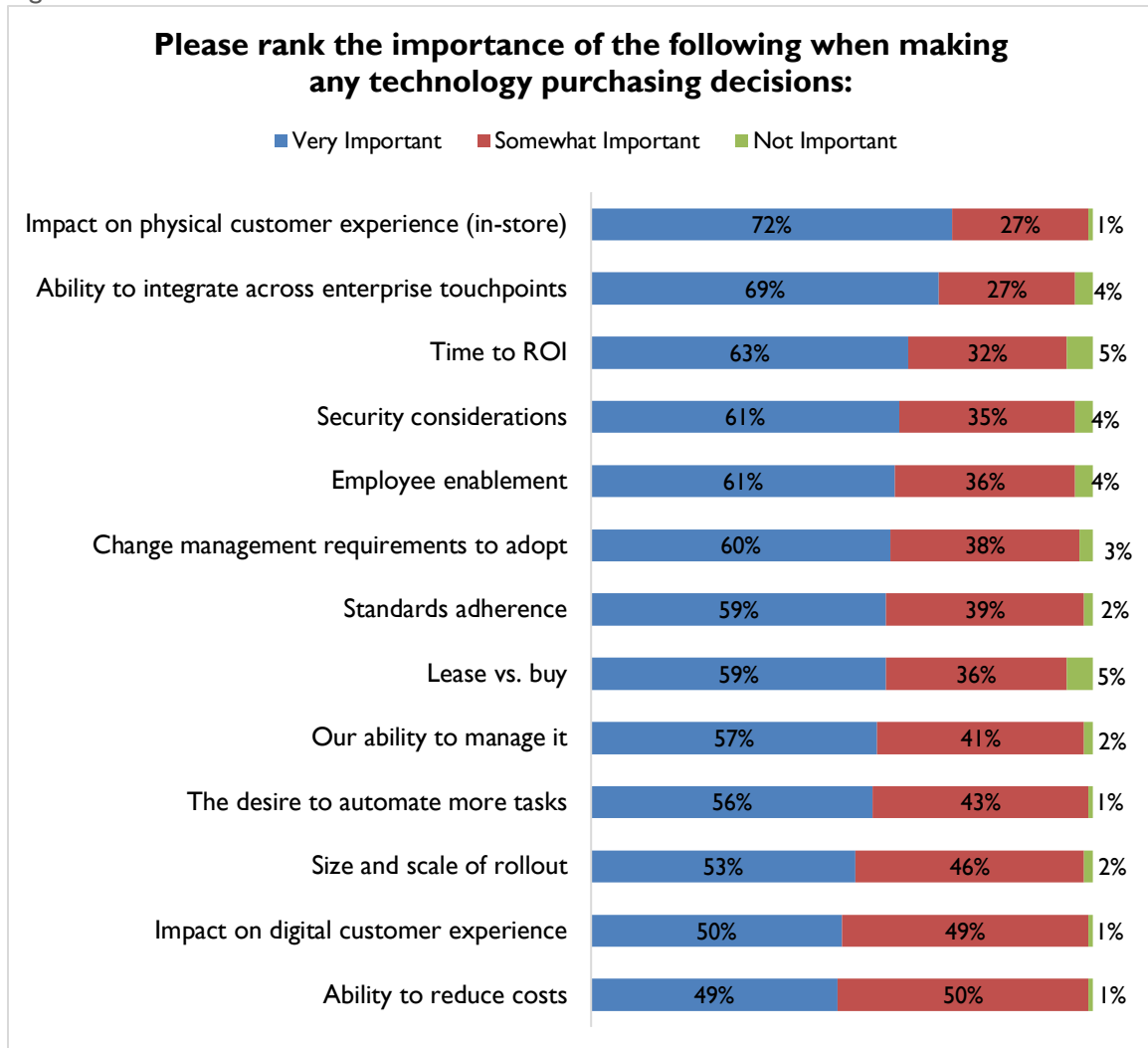
But the real issue is clear to half of the retailers we polled: it is a consumer expectation. As we just noted, there are real benefits that more forward-thinking retailers have already realized. Those that lag behind are actually creating disincentives for consumers to visit the store.

How To Get Going

The tendency for retailers to wait until they are pushed by consumers or the competition into making technology investments in the store raises a general question: how are store technology investments made? As we have already noted, the top reason is often “we *have to*” rather than “we *want to*”.

But there are other important considerations as well (Figure 18).

Figure 18: Consumers First



Source: RSR Research, December 2023

As is so often the case, over-performing Retail Winners have a different set of priorities when it comes to store technology investments (Figure 19).

Figure 19: Turning A Customer Expectation Into Accretive Value

'Very Important' factors when making any technology purchasing decisions.	Winners	All Others
Impact on physical customer experience (in-store)	79%	66%
Time to ROI	73%	53%
The desire to automate more tasks	70%	43%
Employee enablement	68%	53%

Source: RSR Research, December 2023

While over-performers give more weight to the customer experience than average and under-performers do, it is still the #1 reason that most retailers identify to justify technology investments in the store. However, Winners quickly go to the second big benefit: focused technology investments in the stores can create strong ROIs resulting from more automation of tasks and improved employee enablement.

Winners' relentless focus on ensuring that every technology decision promotes growth is a key differentiator. Over-performers clearly view improvements in the customer experience, automation, and employee enablement in stores from Wi-Fi as one of the technologies that will promote growth.

In the next section of this report, we'll look at the priority retailers assign to Wi-Fi-enabled technologies, and the extent to which they have been implemented.

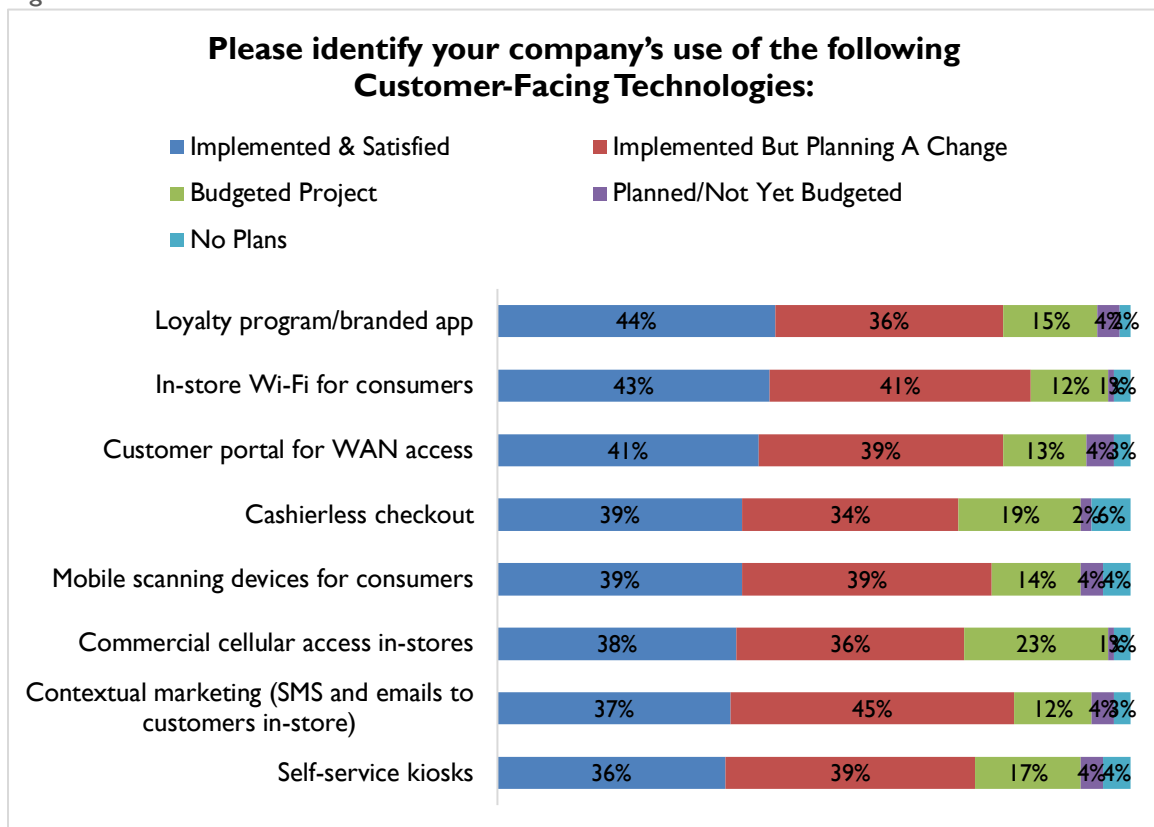
Technology Enablers

Call To (Re)Action

In the last section of this report, the call-to-action was clear: **customer Wi-Fi access in the store is quickly becoming a baseline expectation for consumers that can also create compelling value for the retailer.**

When we asked retailers how far they have actually gone to realize those benefits, a trend emerges. For virtually every customer-facing technology that we asked about, there are almost as many retailers planning to replace what they have already implemented, as there are retailers who are satisfied with their implemented solutions (Figure 20).

Figure 20: Far to Go



Source: RSR Research, December 2023

This is indicative of how fast retailers are retooling the store experience to meet the rising expectations of today's digitally enabled consumers. As recently as in RSR's 2022 benchmark study on the state of the store, we recommended that:

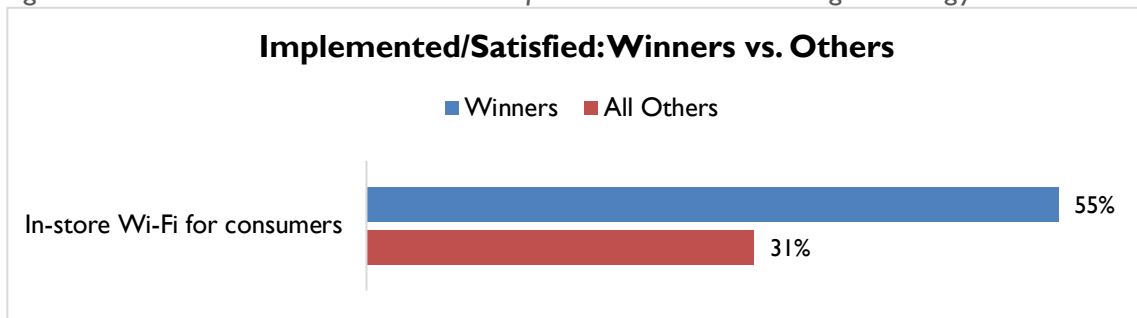
"To be relevant, stores need to be participants in consumers' digital ecosystems. To that end, retailers want to both utilize consumers' personal devices to make the shopping experience more engaging, and to make stores more of a destination than they currently are... Winners see consumers' smart mobile devices as a conduit to deliver digital content

to the sales floor, offer instore navigation, provide more personalized promotions, promote community events in the store, and provide more self-service options.”¹

That recommendation is more relevant today than it was even a year ago. Earlier in this report we learned that over three-fourths of Retail Winners put a high value on customer Wi-Fi access, 77% compared to 59% for average and under-performers. That’s an uptick from what we saw in the 2022 Store Benchmark report, when 65% of Winners and only 36% of others rated customer Wi-Fi access as “high value”. That comparison highlights how quickly the landscape is changing.

But the aggregate results don’t tell the whole story. When we look at the results by performance, it’s clear that over-performers are far ahead when it comes to being well-positioned to use Wi-Fi enablement to improve the store shopping experience (Figure 21).

Figure 21: A Wi-Fi Enabled Store Experience Is A Winning Strategy



Source: RSR Research, December 2023

To further illustrate the point, responses in this study show that almost one-half (48%) of average and under-performers consider their consumer Wi-Fi technologies to be “implemented but planning a change”, compared to only one-third (34%) of Winners. For non-winning retailers, it is clearly a game of catch-up, while Winners press their advantage.

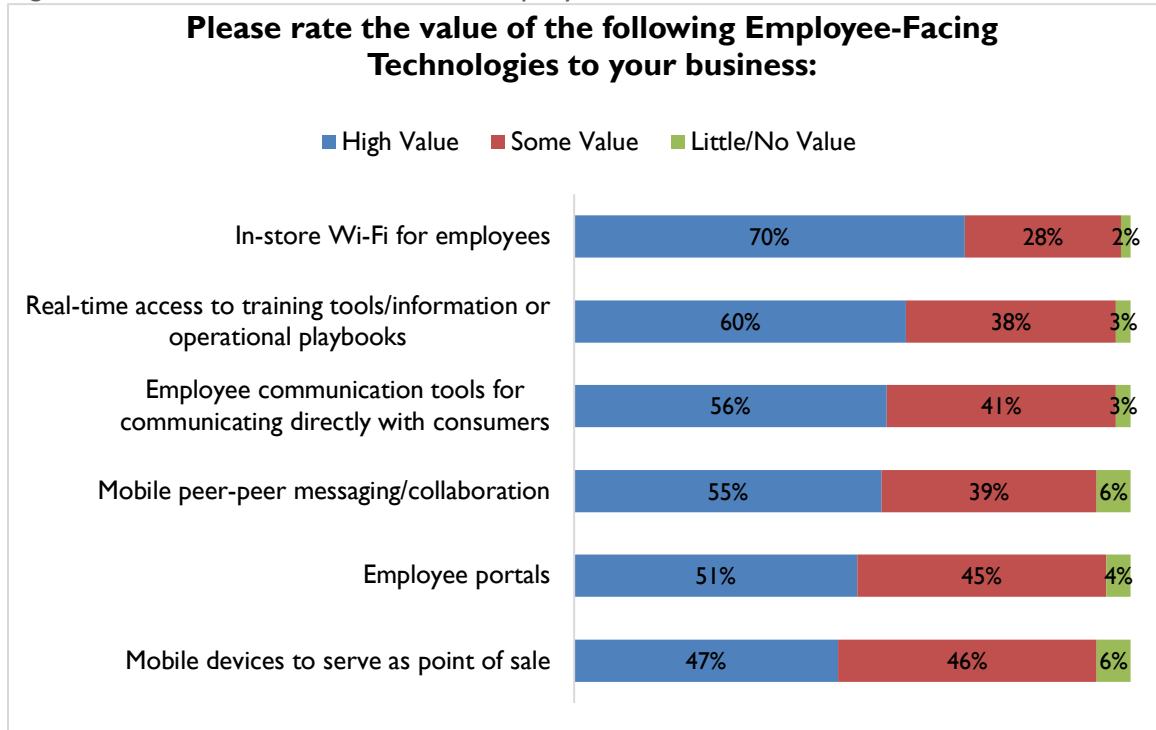
Eyes On The Employee

Earlier in this report we also learned that more over-performers favor employee Wi-Fi enablement than non-winners do (“Very Important”: 68% to 53%). When we drill down further on what capabilities retailers want to enable for employees, there’s clearly a lot of potential (Figure 17).

The vast majority of retailers assign “high value” to general unstructured Wi-Fi access for employees, for example, allowing access to publicly available websites. But all of the other capabilities that retailers favor are more structured, i.e. made possible via mobile apps (e.g. mobile point-of-sale, consumer and employee messaging/collaboration) or via corporate webpages (e.g. employee portals, training).

¹ [What Can Retailers Do In Stores That Amazon Still Can't?](#), RSR Benchmark Report, August 2022

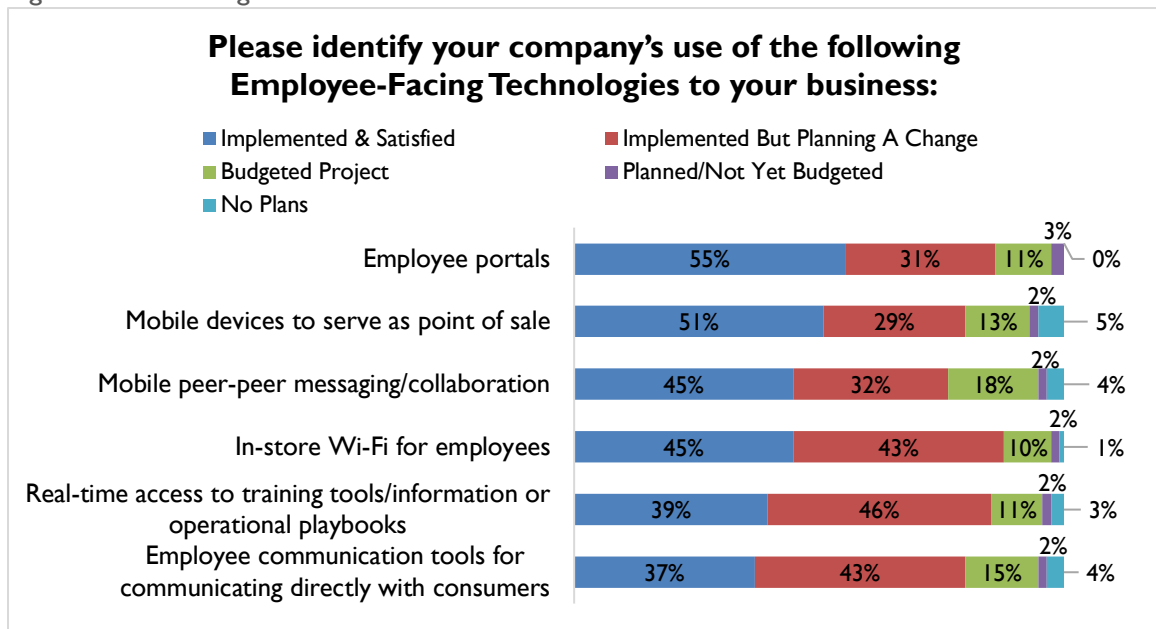
Figure 22: Lots Of Potential For Employees



Source: RSR Research, December 2023

That distinction between *structured* and *unstructured* is helpful when looking at what retailers have implemented (Figure 23). More than one-half of our respondents are satisfied with *structured* access like **employee portals** (access to schedules, communications with managers, time off requests, HR forms).

Figure 23: Changes In The Works



Source: RSR Research, December 2023

A bare majority of retailers are also satisfied with their implemented **mobile point of sale** capabilities, and almost half are satisfied with what they've done to enable **mobile peer-peer messaging**. But not surprisingly, inside these results we see another Winners' story (Figure 24).

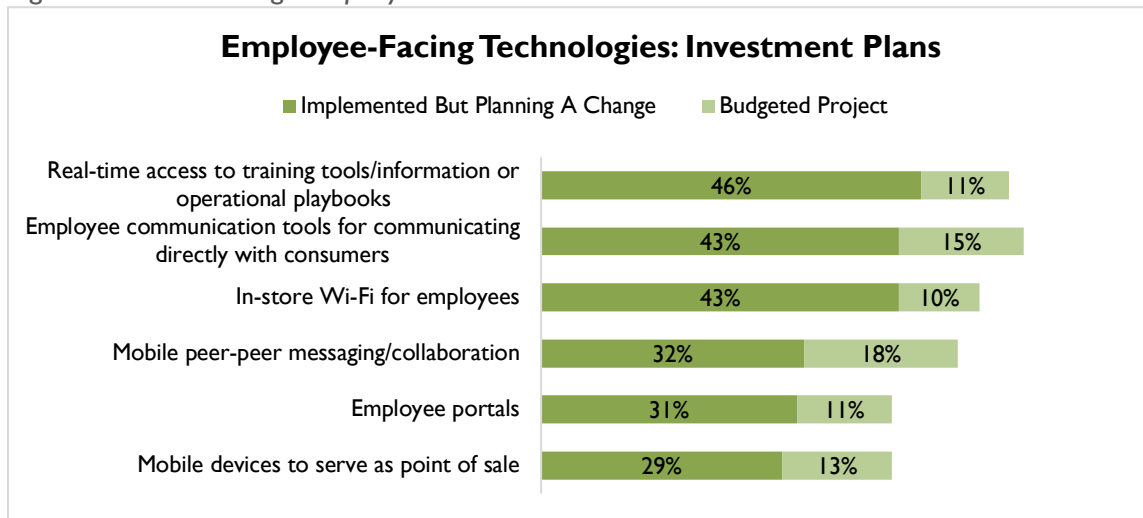
Figure 24: Pushing The Advantage

"Implemented/Satisfied"	Winners	All Others
Mobile devices to serve as point of sale	63%	40%
Mobile peer-peer messaging/collaboration	52%	38%

Source: RSR Research, December 2023

Regardless, there clearly is a lot of re-work going on when it comes to employee enablement. Looking at it from the perspective of planned investments makes clear what next steps are for retailers (Figure 25).

Figure 25: Enabling Employees



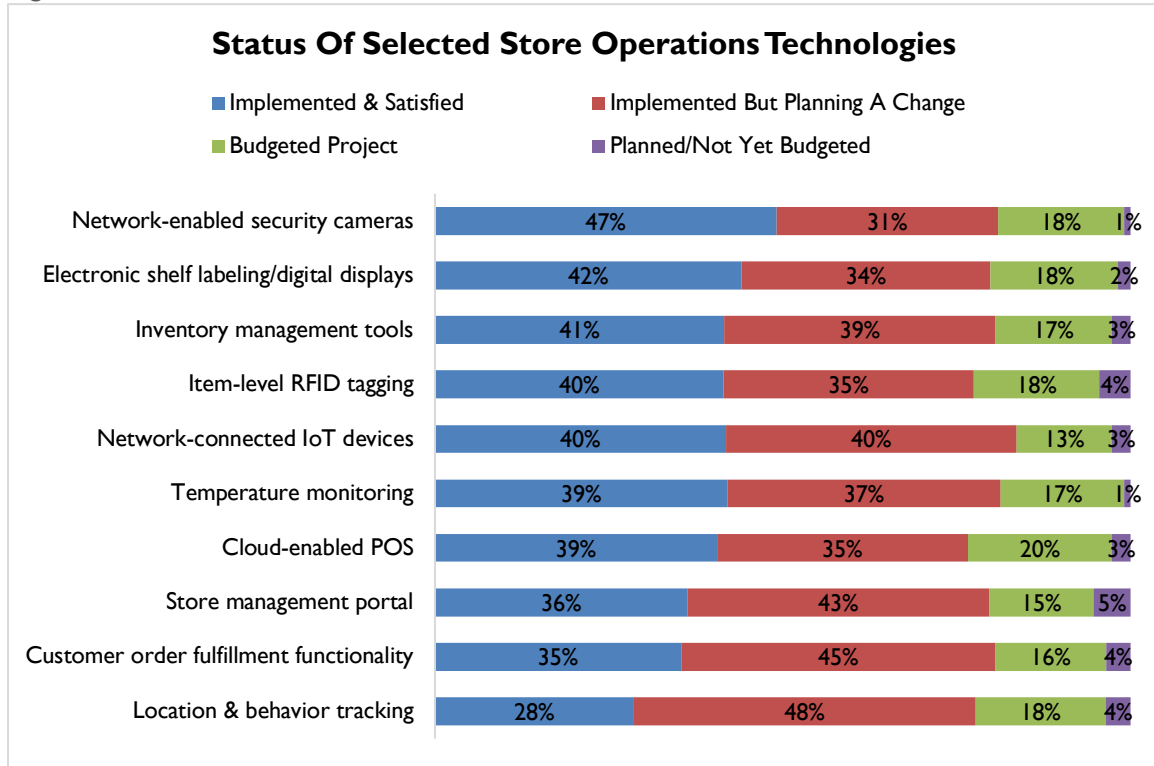
Source: RSR Research, December 2023

Enabling Digital Transformation In The Store

Finally, Wi-Fi in the stores enables next-generation capabilities that might have been problematic for retailers in the days when the physical store had to be wired. Retailer responses to our survey make it apparent that store is being modernized to become more net-centric – a key objective of retailers' *digital transformation* efforts.

A key objective of any digital transformation strategy is to create a digital equivalent of physical things (people, products, assets), so that information generated by those digital equivalents can be analyzed. Wi-Fi in the stores enables technologies on the sales floor to generate real-time data that in turn feeds real-time analytics and feeds *back* actionable operational information. Figure 26 highlights the priorities that retailers have established for store-level Wi-Fi. And as we saw with customer and employee enablement, there is a real focus on new investments.

Figure 26: The Network-Centric Store



Source: RSR Research, December 2023

Wi-Fi: At The Center Of Store Modernization

Taken collectively, retailers’ plans to modernize the customer and employee experience, and to deliver real-time information to store operational processes, puts Wi-Fi at the heart of strategies to modernize the stores. As we stated at the beginning of this report, **the world is connected, and so the stores must be too**. Results in this study show that retailers are already on the way to doing just that, but to some extent the goal posts keep moving.

While retailers may be moving quickly, consumers and technology itself are moving faster.

BOOTstrap Recommendations

Wi-Fi access in the store is quickly becoming a baseline expectation for consumers, that can also create compelling value for retailers. But there is very little about current-state store technology that would make most stores confusing for a time traveler from 20 years ago. What *would* startle a time traveler, however, would be what the shoppers are doing with their smart devices. Retailers are well aware of this paradox and are moving quickly to catch up. The problem is that consumer expectations are moving faster.

How should retailers respond? As is frequently the case, overperforming “Retail Winners” show the way. Our recommendations are based on their winning ways.

‘Good Enough’ Will Never Be Good Enough

There are many current and future-state requirements for store Wi-Fi networks: more devices, more and new kinds of data, and more functionality. Most retailers rate their current store wireless access as only “good enough” for current use cases. But Retail Winners are planning for a new generation of capabilities for consumers, employees, and for operational processes. Winners have accounted for those expectations when configuring their Wi-Fi networks. Non-Winners need to catch up.

Consumer Expectations Drive The Agenda

“The Store” is not dead – but it is being redefined in the context of how consumers shop. Retailers know that today’s shoppers are demanding Wi-Fi access as an entitlement, to look up product information, read reviews, and check competitive prices. While a majority of retailers in this study understand the requirement, Winners are more proactive in doing something about it.

Employee Expectations Are Also Important

Retail Winners are just as interested in enabling employees as they are enabling consumers – they know that that is a key to driving new efficiencies. What’s also important to note is that employees want to use the same technologies in their work as they do in their lives – it’s actually a criterion for choosing a job. But over-performers are also aware that employee enablement is a key to finding new productivity gains as well.

There IS an ROI

While Wi-Fi in the stores has become almost a cost of doing business, that doesn’t mean there isn’t also an ROI associated with the technology. For example, customer Wi-Fi access creates a real time link between a store shopper and the company’s CRM system to deliver targeted value and to drive loyalty.

Wi-Fi Enables A New Generation of Business Applications

Solutions providers have moved their application suites to the cloud and offer them as services to a mobile workforce. Retailers have warmed up to what that enables; for example, mobile point of sale, customer order fulfillment, employee micro-training, and peer-to-peer communications are all predicated on a wireless network in the store. Wi-Fi also enables a host of capabilities associated with IoT devices: security cameras, interactive shelf display, RFID inventory tags, and environmental controls, just to name a few.

Security & Privacy Concerns Are Real

Consumers have become increasingly concerned about what data is being collected about them and by whom. For their part, retailers know that when customers sign onto the customer portal, it opens up opportunities for interaction, tracking and analysis (e.g. to measure customer dwell time within various departments). Retailers know that they have to be respectful of that data. RSR's advice: be transparent about what data is captured and what it is used for.

Choose The Right Network Partner

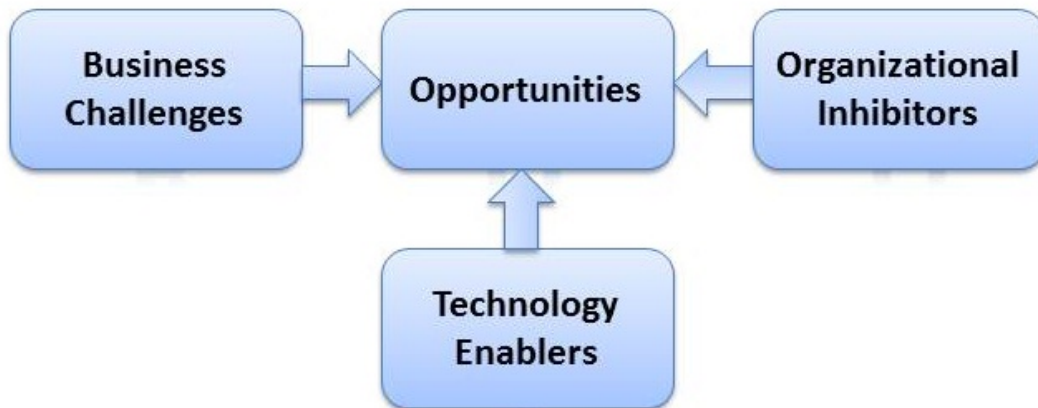
As mission-critical as networks have become, retailers are realizing that they cannot keep up with all the innovations that trigger upgrades and expanded bandwidth requirements. To that point, more retailers want to lease (rather than buy) the infrastructure needed to support Wi-Fi in the stores. There are network providers that devote large portions of their budgets to R&D, that can work across different geographies, and manage compliance to local and regional regulations, and have on-the-ground support available. Retailers don't need to take those tasks on if they choose the right technology partner.

Appendix A: The BOOT Methodology[®]

The BOOT Methodology[®] is designed to reveal and prioritize the following:

- **Business Challenges** – Retailers of all shapes and sizes face significant **external** challenges. These issues provide a business context for the subject being discussed and drive decision-making across the enterprise.
- **Opportunities** – Every challenge brings with it a set of opportunities, or ways to change and overcome that challenge. **The ways retailers turn business challenges into opportunities often define the difference between Winners and “also-rans.”** Within the BOOT, we can also identify opportunities missed – and describe leading edge models we believe drive success.
- **Organizational Inhibitors** – Even as enterprises find opportunities to overcome their external challenges, they may find **internal** organizational inhibitors that keep them from executing on their vision. Opportunities can be found to overcome these inhibitors as well. Winning Retailers understand their organizational inhibitors and find creative, effective ways to overcome them.
- **Technology Enablers** – If a company can overcome its organizational inhibitors it can use technology as an enabler to take advantage of the opportunities it identifies. Retail Winners are most adept at judiciously and effectively using these enablers, often far earlier than their peers.

A graphical depiction of the BOOT Methodology[®] follows:



Appendix B: About Our Sponsor



Extreme Networks, Inc. is a leader in cloud networking focused on delivering services that connect devices, applications, and people in new ways. We push the boundaries of technology leveraging the powers of machine learning, artificial intelligence, analytics, and automation. 50,000 customers globally trust our end-to-end, cloud-driven networking solutions and rely on our top-rated services and support to accelerate their digital transformation efforts and deliver progress like never before.

Appendix C: About RSR Research



Retail Systems Research (“RSR”) is the only research company run by retailers for the retail industry. RSR provides insight into business and technology challenges facing the extended retail industry, providing thought leadership and advice on navigating these challenges for specific companies and the industry at large. We do this by:

- **Identifying information** that helps retailers and their trading partners to build more efficient and profitable businesses;
- **Identifying industry issues** that solutions providers must address to be relevant in the extended retail industry;
- **Providing insight and analysis** about a broad spectrum of issues and trends in the Extended Retail Industry.

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