INCISIV

Market Research

2022 Connected Retail Experience Study: The Store's Digital Evolution

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Why did we do this research?

Even though digital commerce has grown exponentially and occupied significant mindshare in the media, the fact remains that stores are as important as ever. However, their role and the challenges they face have evolved in the last 24 months. Incisiv and Verizon wanted to look across retail segments to understand:

- How have changes in customer expectations impacted technology investment plans?

- How have technology priorities changed based on changes in operational and labor-related issues?

- Are retailers considering the infrastructure requirements of adding new technology to stores?

Digital-first shopping is here to stay.

73%

of all store visits start online

Digital has become shoppers' 'front door' to almost all shopper journeys. However, the path to purchase is no longer linear. Shopper journeys may begin online or on a mobile device but they can also end on a mobile device via click & collect or curbside pick-up. In addition, in store shopping is increasingly digital and must be factored into operations and merchandising.

The talent crunch.

87%

of retailers believe retaining store talent will become more difficult

Retailers find themselves grappling with a widening labor shortage, rising wages, and high attrition rates. In addition, as the share of digital commerce rises, so does the complexity of store tasks. Retailers have to empower their associates with the right technology and embrace automation to deliver against rising shopper expectations while executing efficiently.

Source: Incisiv Research (2021 Consumer and Retailer Studies)
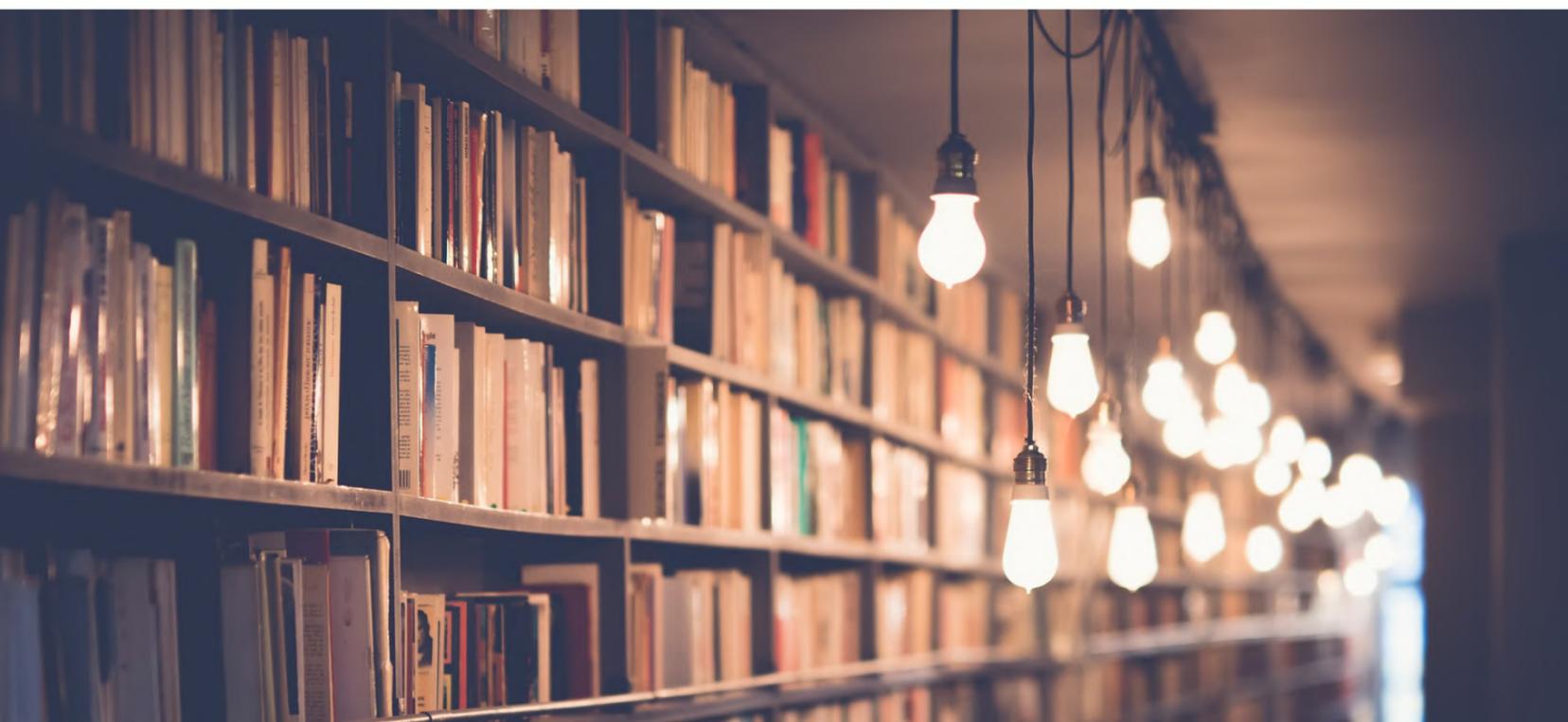
While retailers are satisfied with their overall store experience and operations, they are dissatisfied with their store's digital maturity.

There is a disconnect between how retailers assess their overall store experience and their digital store experience. While they are satisfied with their overall store experience and operational efficiency, they don't think their digital experience meets shopper expectations.

Over the last 18 months, we've seen a rapid acceleration in shoppers' digital adoption and, consequently, a rapid digital transformation for retailers. We've seen the store experience become more contactless, shopper-associate engagement has become digital, and the store's role has evolved to become a hub of omnichannel fulfillment. The store's digital fabric(engagement and operations) needs strengthening because it will be the critical determinant of future performance.

62%
are **satisfied** with their overall **store experience**

66%
are **satisfied** with their store's **operational efficiency**

39%
are **satisfied** with their store's **digital experience**

47%
are **satisfied** with the **effectiveness of their store associates**

Grocery & General Merchandise retailers are less satisfied with their store performance than Specialty & Department Stores.

While the overall satisfaction trend across store characteristics between Grocery & General Merchandise and Specialty & Department Store retailers is consistent, a few variances are interesting.

The smallest gap between formats is in store operational efficiency (8%). The biggest gap is their satisfaction with the store's digital experience (33%). It's essential to note that the sample's higher percentage of Grocery retailers is driving these gaps. The complex operational challenges faced by grocers during the pandemic and their slower digital adoption are the primary reasons for these gaps in satisfaction.
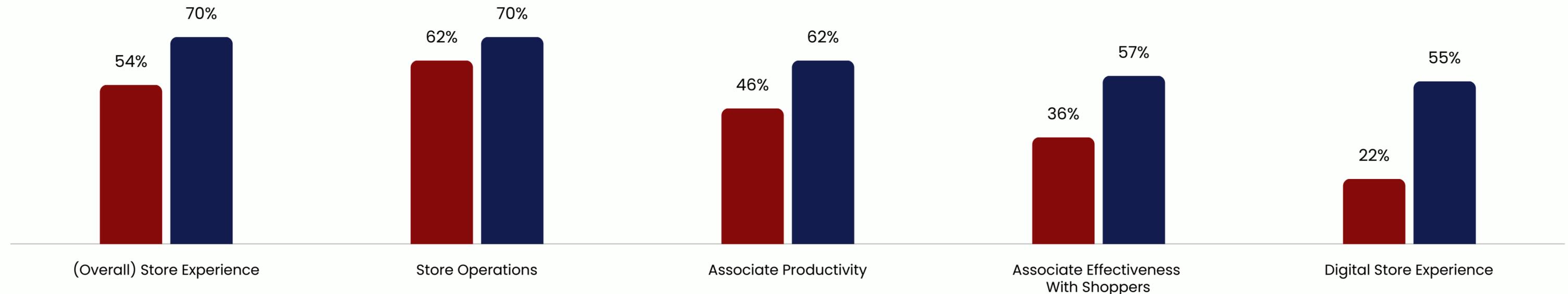
Reading this chart:
This chart represents the percentage of retailers satisfied with their performance

Retailer Satisfaction

● Grocery and General Merchandise ● Specialty and Department Stores

Category	Grocery and General Merchandise	Specialty and Department Stores
(Overall) Store Experience	54%	70%
Store Operations	62%	70%
Associate Productivity	46%	62%
Associate Effectiveness With Shoppers	36%	57%
Digital Store Experience	22%	55%

Source: Incisiv - Verizon | 2022 Connected Retail Experiences Study

93%
believe shoppers will increase the use of mobile devices in the store

83%
believe the amount of technology deployed in-store will increase

69%
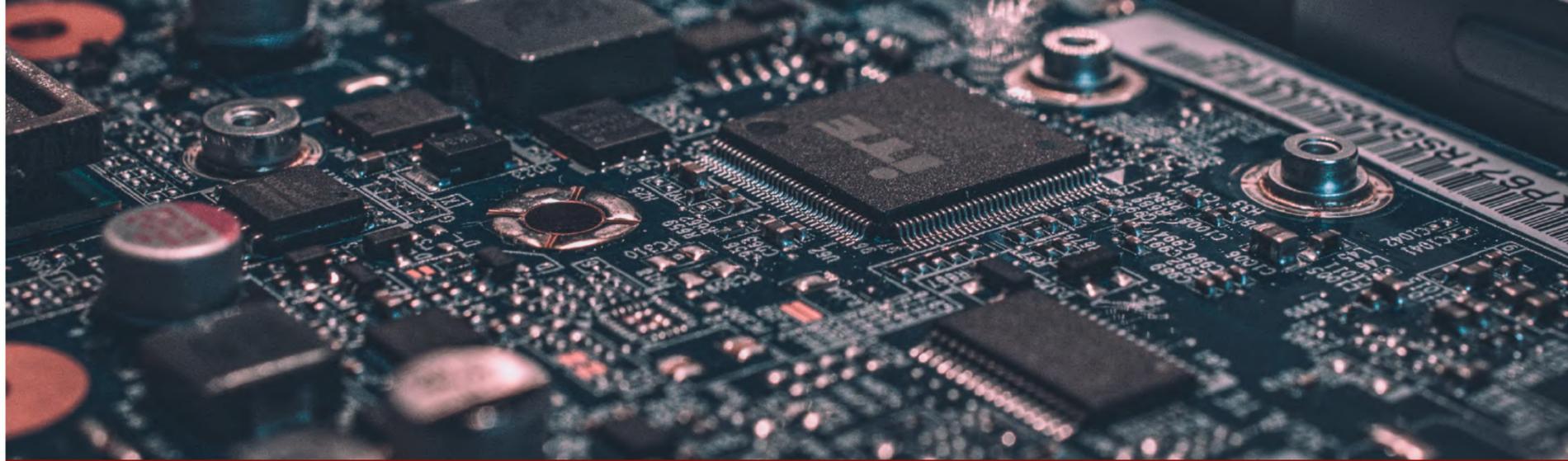believe the number of store applications that will move to the cloud will increase

Sustained growth in store technology deployment will strain existing networks.

Retailers will deploy a significant amount of new technologies in their stores over the next few years. 83% of retailers indicate that the amount of technology deployed at their stores will increase by 2025.

In this phase of their digital transformation, most new software will be hosted in the cloud and will need to be accessible through mobile devices. This rapid shift to cloud-based applications will provide access to more data and a greater exploration of mobile edge computing (MEC) use cases.

Retailers are already on the path to automating associate tasks, freeing up more time for them to interact and engage with customers. Associate task automation could more than double by 2025.

The success of this business-wide technology overhaul is dependent on a robust, scalable, and fast network.

In-Store Technology

% who believe that the **amount of technology deployed in the store** will increase by 2025

88% — Grocery and General Merchandise
79% — Specialty and Department Stores

Associate Mobile Devices

% who believe **associate mobile devices deployed** will increase by 2025

66% — Grocery and General Merchandise
53% — Specialty and Department Stores

IoT/RFID Devices

% who believe **IoT/RFID devices deployed in the store** will increase by 2025

44% — Grocery and General Merchandise
51% — Specialty and Department Stores

AR/VR Applications

% who believe **AR/VR applications deployed in the store** will increase by 2025

26% — Grocery and General Merchandise
57% — Specialty and Department Stores

Retail Segment Comparison

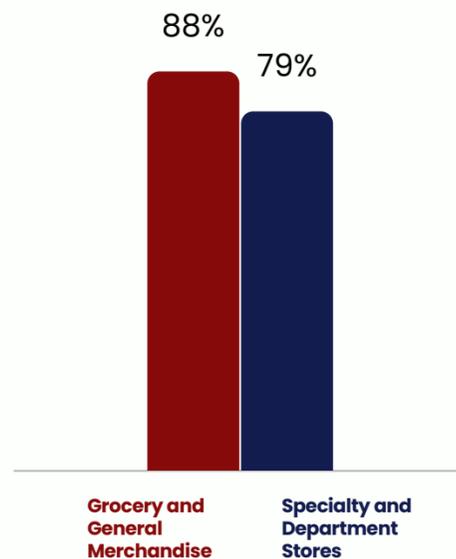# The number of network-dependent technologies deployed in the store will continue to rise.

8 in 10 retailers expect the number of technologies deployed in the store to increase by 2025. Grocery and General Merchandise retailers are tracking for a higher relative deployment than Specialty and Department Stores.

The current trend of in-store technology deployment points to an increase in investment in technologies that improve operational efficiencies. More than half of all retailers will increase the number of associate mobile devices deployed in the store, and almost half will increase the number of IoT/RFID devices deployed. While experiential store technologies have lower planned deployments than operational ones, we will see retailers test and innovate with them. Twice as many Specialty and Department Store retailers will increase their investment in AR/VR capabilities than Grocery and General Merchandise retailers.

The overall increase in these capabilities will test existing networks' ability to handle more devices that process bandwidth-heavy files and require low latency.
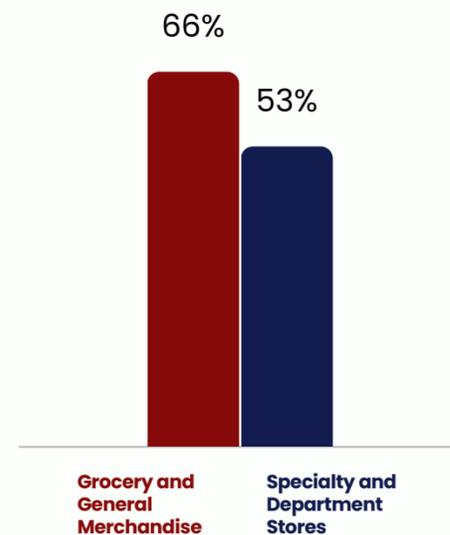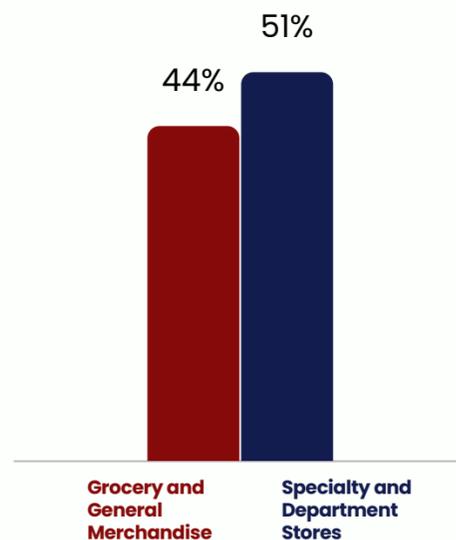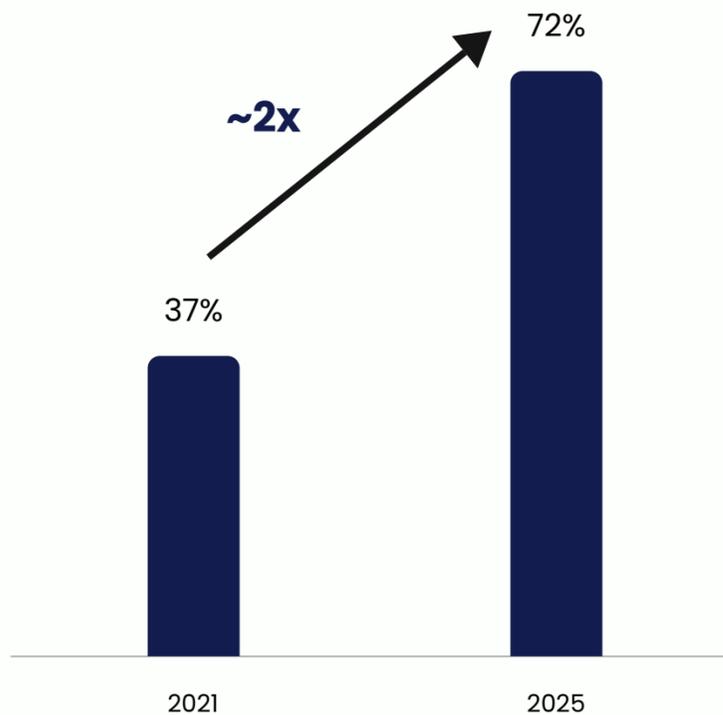
Associate Task Automation

% of store associate tasks that are automated

Grocery and General Merchandise

~3x

62%

19%

2021   2025

Specialty and Department Stores

~2x

72%

37%

2021   2025

Retail Segment Comparison

There will be a significant increase in retailers automating store associate tasks.

Retailers are facing a host of challenges in managing their store operations. The tight labor market is driving up labor costs, and the increased role of the store in supporting digital operations is increasing the variability and volume of store tasks.

It's becoming increasingly difficult for retailers to maintain or grow profitability due to these twin challenges.

Automating store associate tasks will be a big focus for retailers across formats. While Grocery and General Merchandise retailers are behind in associate task automation, they are tracking towards a more aggressive adoption than Specialty and Department Stores. Associate task automation for Grocery and General Merchandise retailers will grow ~3x (from 19% in 2021 to 62% in 2025) compared to ~2x (from 37% in 2021 to 72% in 2025) for Specialty and Department Stores.

Network Performance Report Card

Network Performance	Retailer Satisfaction %
Manage peak network traffic	26%
Application response time	28%
Network bandwidth availability	36%
Network downtime	41%
Ease of maintaining network	44%
Mobile security	55%
Payment security	57%
Network and IT security	63%

Existing networks can't support current and future technology needs.

Current networks score well on security, but disappoint on core performance parameters

Retailers are not satisfied with their network's performance, and the future looks even more challenging as technology deployments increase, demanding a more robust network.

The top three areas where retailers struggle the most with their networks are managing peak traffic, application response time, and network bandwidth availability.

With the number of customer and associate mobile devices increasing and more in-store technology deployed, retailers' lack of network support will be a challenge. A strong network - which supports technology capabilities with peak load management, adequate speed, and sufficient bandwidth - is a prerequisite for stores' digital transformation.

Retail Segment Comparison: Network Pain Points

Peak Traffic

% of retailers **satisfied** with their **network's ability to manage peak traffic**
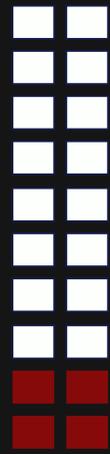
20%
Grocery and General Merchandise

32%
Specialty and Department Stores

Response Time

% of retailers **satisfied** with **application response time**

26%
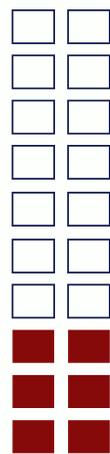Grocery and General Merchandise

30%
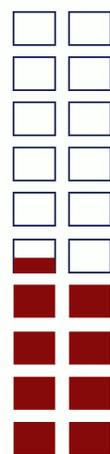Specialty and Department Stores

Network Bandwidth

% of retailers **satisfied** with the **availability of network bandwidth**

30%
Grocery and General Merchandise

42%
Specialty and Department Stores

Network Downtime

% of retailers **satisfied** with **network downtime**

34%
Grocery and General Merchandise

47%
Specialty and Department Stores

An increase in mobile and in-store connected devices and the need for a faster store network are driving 5G adoption.

Retailers' top 3 expectations from their network are faster speed, reduced network downtime, and an increased ability to manage peak traffic. The rise in network-dependent store technologies – associate, consumer and Internet of Things (IoT) devices – will test the store network to the hilt.
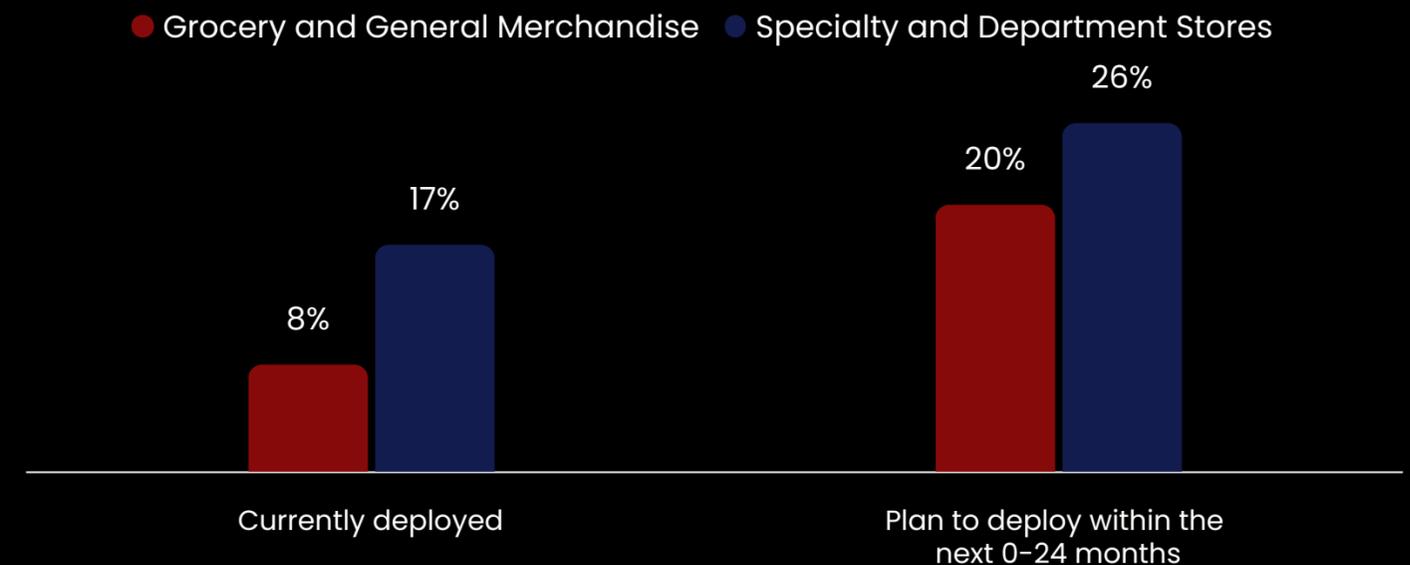
The inability to meet these expectations can be crippling for the ambitious digital transformation programs that retailers are executing. Upgrades to the store network bandwidth and management infrastructure must accompany transformation programs.

5G Adoption: Top Business Drivers

Network Area	Rank
Increase in customer mobile devices in-store	#1
Increase in associate mobile devices	#2
Increase in IoT/connected devices	#3

5G adoption is slow as cost remains a top concern.

5G Deployment Plans

● Grocery and General Merchandise   ● Specialty and Department Stores

Currently deployed: 8%, 17%
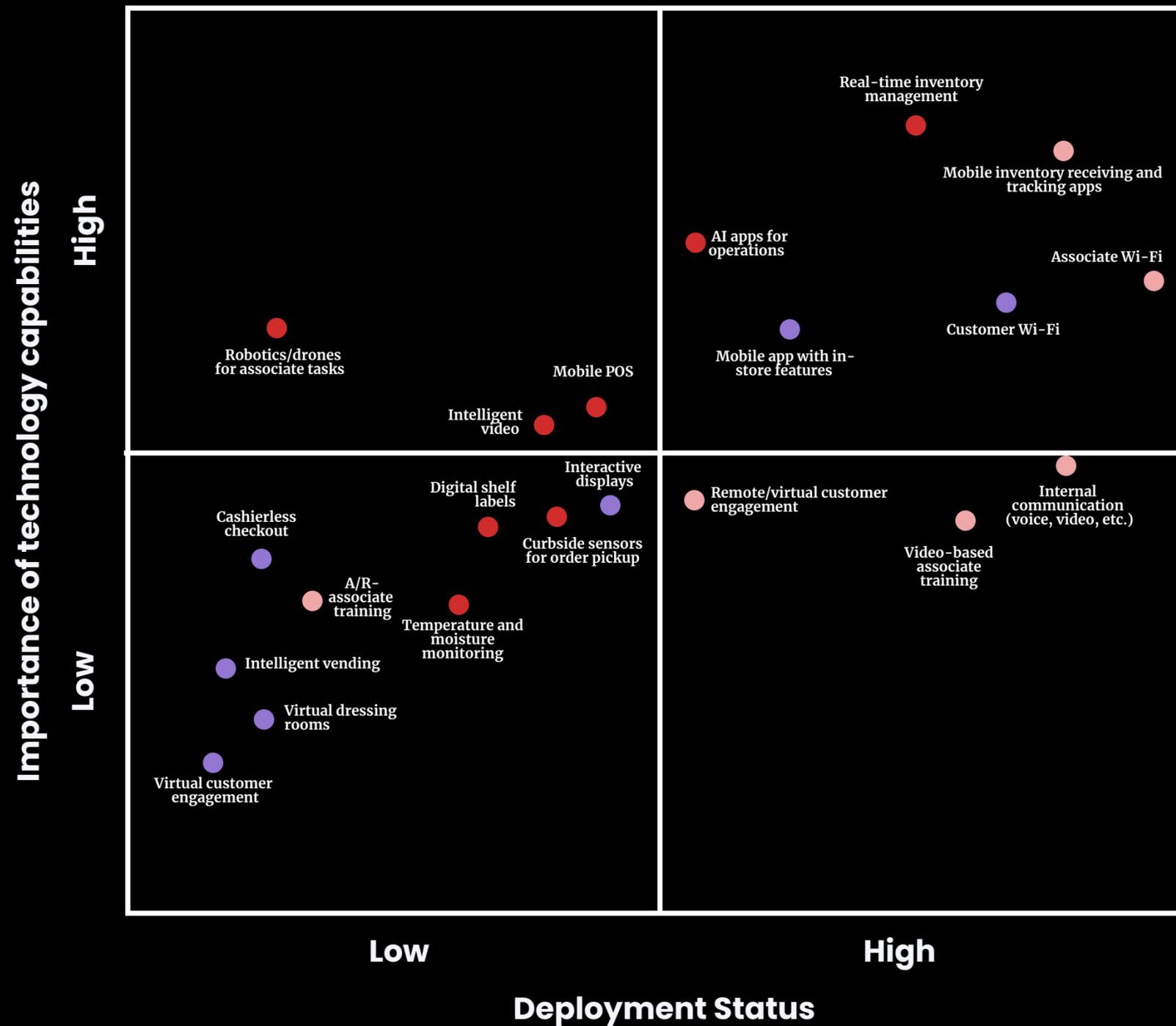Plan to deploy within the next 0-24 months: 20%, 26%

While upgrading to 5G can help solve most network challenges facing retailers, adoption is low and will continue to be sluggish. Overall adoption stands at about 13% but will almost triple by 2024-25. The relative increase in the adoption rate among Grocery and General Merchandise retailers will be higher than that of Specialty and Department Stores.

Two significant challenges facing retailers as they evaluate an upgrade to 5G (assuming it's available across their vast store fleet) are upgrade cost and understanding which use cases need a 5G-equivalent bandwidth.

To move forward, retailers need to visualize the future impact of all the technology they are putting in the store, and evaluate the effect that a poor connection will have on the customer experience and store operations.

Importance of technology capabilities

High

Robotics/drones
for associate tasks

Mobile POS

Intelligent
video

Real-time inventory
management

Mobile inventory receiving and
tracking apps

AI apps for
operations

Associate Wi-Fi

Customer Wi-Fi

Mobile app with in-
store features

Low

Cashierless
checkout

Digital shelf
labels

Interactive
displays

Curbside sensors
for order pickup

A/R-
associate
training

Temperature and
moisture
monitoring

Intelligent vending

Virtual dressing
rooms

Virtual customer
engagement

Remote/virtual customer
engagement

Internal
communication
(voice, video, etc.)

Video-based
associate
training

Low   **High**

Deployment Status

🔴 Operational capabilities   🟣 Customer experience capabilities   🟠 Associate effectiveness capabilities

This chart compares the importance of technology capabilities across customer experience, operational efficiency, and associate effectiveness to their deployment status (current or planned in the next 2 years). Low deployment indicates relatively lower current or planned adoption. High deployment indicates relatively higher current or planned adoption.

For example, real-time inventory visibility is a high importance technology capability to enhance operational efficiency. Its high deployment status tells us it has high current and planned adoption relative to other capabilities.
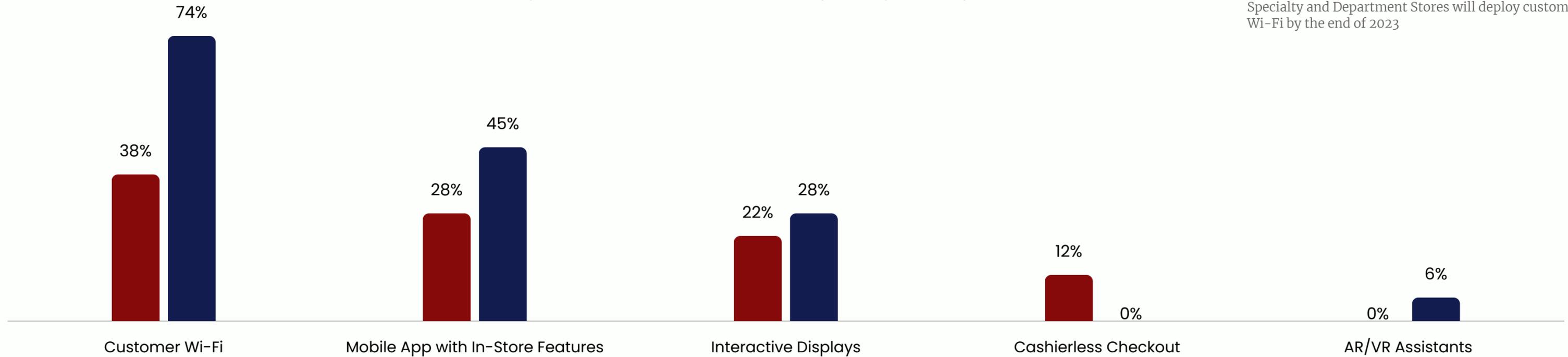
- Robotics/drones for the associate task, intelligent video, and mobile POS are rated high on importance as technology capabilities that could enhance operational efficiencies; however, they are lower on the current and planned deployment.

- Wi-Fi for both customers and associates witnesses higher adoption and it is also one of the important technology capabilities for customer experience and associate effectiveness.

- AI is seen as important in improving operational efficiency and will have a high adoption in improving store operations.
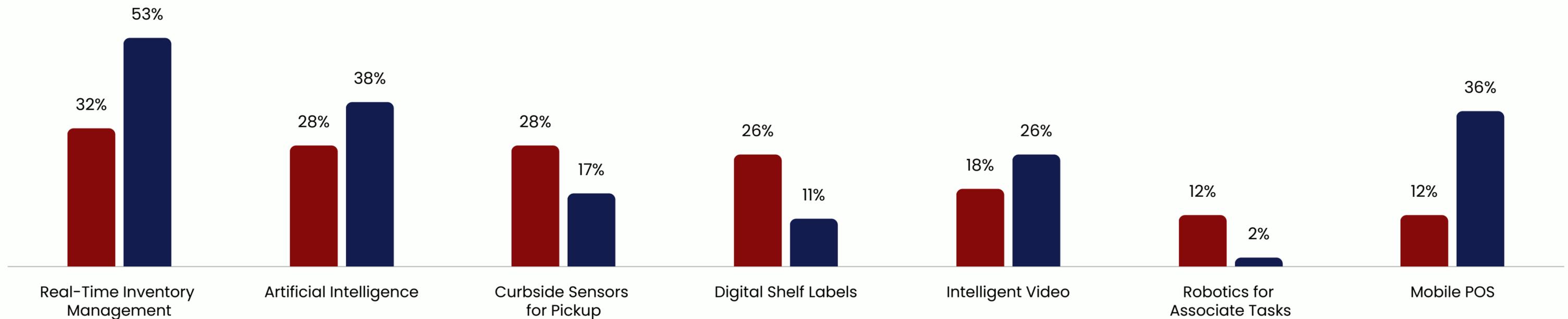
Customer Experience Technologies

● Grocery and General Merchandise ● Specialty and Department Stores

	Customer Wi-Fi	Mobile App with In-Store Features	Interactive Displays	Cashierless Checkout	AR/VR Assistants
Grocery and General Merchandise	38%	28%	22%	12%	0%
Specialty and Department Stores	74%	45%	28%	0%	6%

Operational Efficiency Technologies

	Real-Time Inventory Management	Artificial Intelligence	Curbside Sensors for Pickup	Digital Shelf Labels	Intelligent Video	Robotics for Associate Tasks	Mobile POS
Grocery and General Merchandise	32%	28%	28%	26%	18%	12%	12%
Specialty and Department Stores	53%	38%	17%	11%	26%	2%	36%

Retailers are investing aggressively in technology to improve their in-store digital experience. It's impossible to do that without upgrading the underlying store infrastructure.

Digital Dissatisfaction

Retailers recognize that shoppers want a digital-enabled experience that augments their in-store experience. However, they are dissatisfied with their store's digital experience.

39%

are satisfied with their store's digital experience
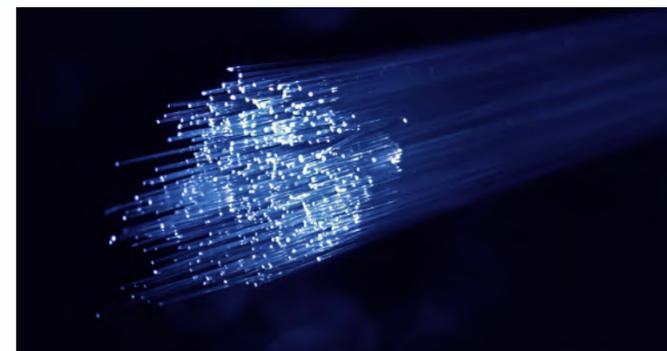
Store Technology Transformation

The investment in store technology will increase significantly over the next 24 months. The immediate focus is on improving inventory visibility, improving fulfillment operations, and automating associate tasks.

67%

of all store tasks will be automated by 2025

Poor Network Performance

Store networks are increasingly under strain due to the increased bandwidth demand of new devices (customer and associates) and software. Most retailers are dissatisfied with their network performance.

26%

are satisfied with their ability to manage peak network traffic

Justifying Investment in 5G

A store network upgrade is imminent. Retailers can't support their in-store technology investments without improving the infrastructure. Justifying the ROI of this upgrade to 5G is the biggest impediment to adoption.

#1

challenge in upgrading to 5G is justifying the ROI

Executive Perspective

Jerri Traflet

Managing Partner Global Solutions, Retail, Travel and Distribution at Verizon

The retail digital evolution is creating increased demands on network connectivity in stores. According to the study, 93% of retailers expect consumer demand for in-store connectivity to increase in the next three years and the percentage of associate tasks that will be automated will more than double. To address these accelerated store connectivity needs, 5G in-building IoT and wireless, mobile, and connectivity technology have begun rolling out across the globe, offering retailers upgraded speed, greater bandwidth, lower latency, and real-time connectivity across the retailer's business.

Consolidation of retailers' communications network with 5G also provides reduced cost of ownership, simplification of their connectivity strategy, and the ability to take advantage of managed services as needed. With these capabilities, retailers can take advantage of advanced communication services while focusing on the business value that 5G can now enable: device integration and security, data analytics across the enterprise, edge computing, and cloud-based applications and services. Customers are demanding more in their in-store, mobile, and online experiences, and 5G provides the core capability to deliver those experiences.

With increased network speed, bandwidth, and lower latency, retailers can offer customers and associates expanded capabilities and continue to enhance the customer experience. It is the realization of these enhanced business use cases that will accelerate the adoption of 5G across the retail industry.

In a 5G-connected world, retailers can also tap massive amounts of data about industry, consumer trends, and supply chains that can be aggregated and analyzed in the cloud to provide real-time insights to guide important business decisions.

All in all, 5G heralds a dynamic acceleration in our world of connectivity, offering operational synergy unlike anything the retail industry has experienced before.

Research Overview:

Verizon commissioned Incisiv to understand the digital evolution of the store customer experiences, operational efficiencies, and associate effectiveness capabilities, and their impact on core infrastructure and connectivity. The analysis was conducted from November to December 2021.

103

Total no. of retail respondents

81%

Respondents were director and above

42%

Respondents represent companies with over $1 billion in revenue

48% VP level & above

33% Director level

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ABOUT INCISIV

Incisiv is a peer-to-peer executive network and industry insights firm for consumer industry executives navigating digital disruption.

Incisiv offers curated executive learning, digital maturity benchmarks, and prescriptive transformation insights to clients across the consumer and technology industry spectrum.

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ABOUT VERIZON

Verizon Communications Inc. (NYSE, Nasdaq: VZ) was formed on June 30, 2000 and is one of the world's leading providers of technology, communications, information and entertainment products and services. Headquartered in New York City and with a presence around the world, Verizon generated revenues of $128.3 billion in 2020. The company offers data, video and voice services and solutions on its award-winning networks and platforms, delivering on customers' demand for mobility, reliable network connectivity, security and control.

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