



Market Research

# 2023 Connected Restaurant Experience Study: Digital Engagement Creates Complexity

Research Partners

**verizon**<sup>✓</sup>






March 2023

## INTRODUCTION

# Why did we do this research?

Verizon, Cisco, and Incisiv collaborated on this research to understand the digital evolution of the dining industry. The study focused on understanding how digital adoption changes customer expectations, restaurant operations, associate effectiveness, and their impact on core infrastructure and connectivity. The survey and analysis were conducted in December 2022 - January 2023 to look across dining segments (quick-service and full-service) to understand:

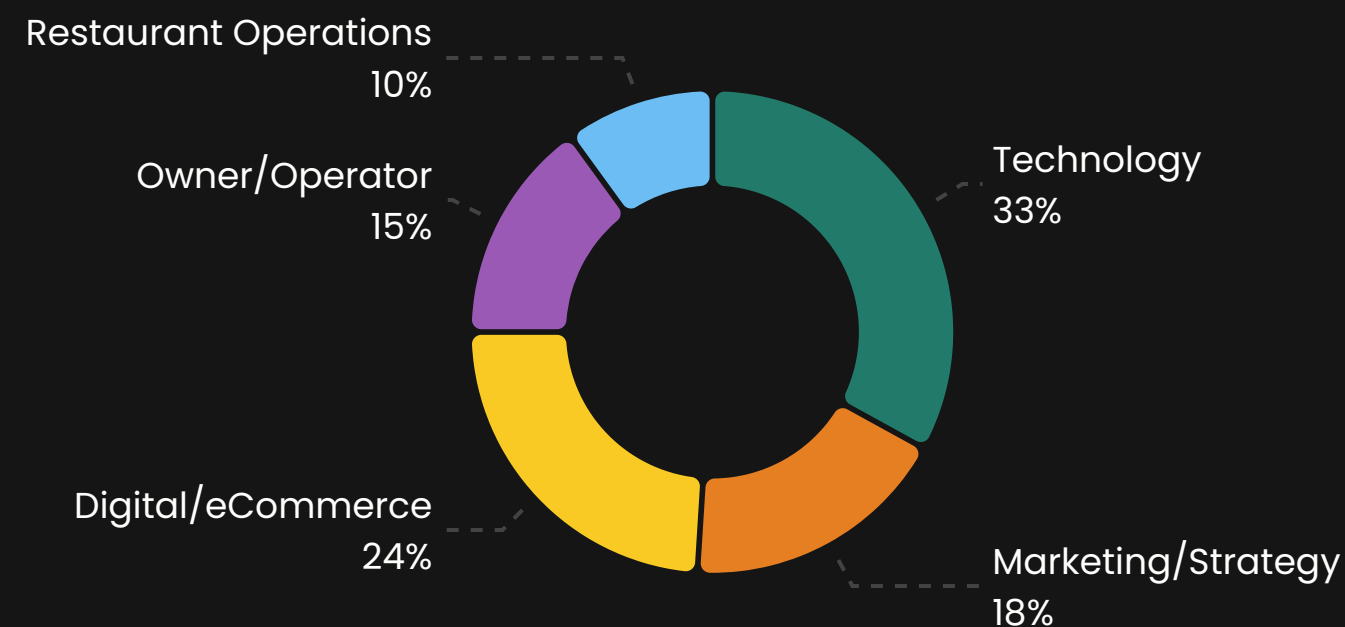
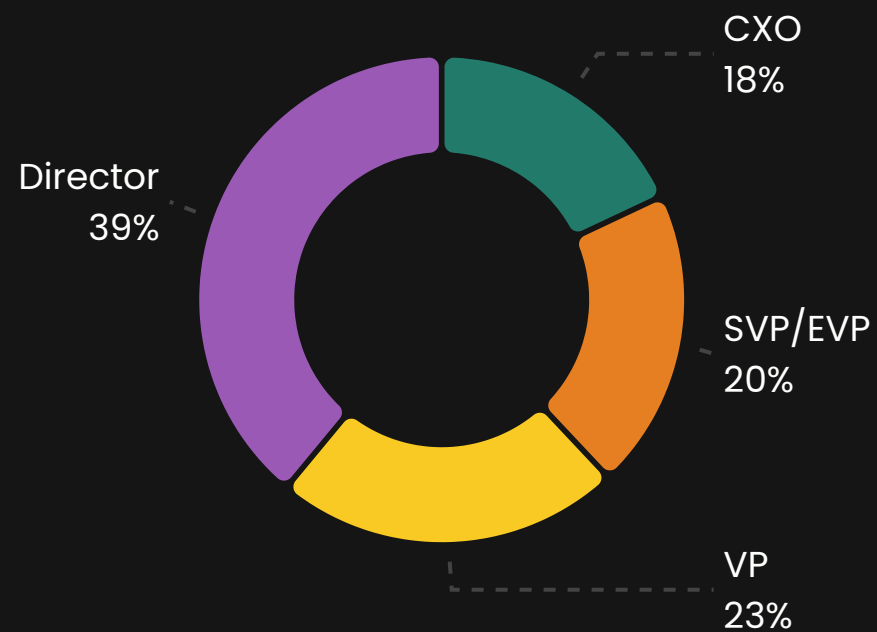
-  How have changes in customer expectations impacted technology investment plans?
-  How have technology priorities shifted based on changes in operational and labor-related issues?
-  How do quick-service and full-service restaurants differ in their technology roadmap?

## Research overview

**126** restaurant executives surveyed

**52%** Quick-Service

**48%** Full-Service



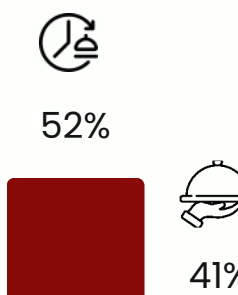
# Digital is becoming the default way to engage with customers

**79%**

of restaurants will offer mobile ordering by 2024.

The COVID-19 pandemic significantly accelerated the adoption of digital ordering, and the change in customer behavior persists. Customers value the convenience and control that digital ordering gives them, and 83% of them will use mobile order ahead when dining at a quick-service restaurant in 2023<sup>1</sup>. While the adoption of digital ordering is relatively low in full-service restaurants, they use digital technologies to provide access to the menu and payment and enhance the overall dining experience.

● Quick-Service ● Full-Service



We are satisfied with our restaurant's digital experience



**But less than half of restaurants are satisfied with their in-store digital experience.**

Restaurant brands must consistently deliver guests a convenient and engaging digital experience – that is the benchmark. However, some restaurants don't rate their current on-premise digital experience highly, probably because they need improvements to their digital operations processes, integration of technology platforms, and store infrastructure to support the growth in new technology.

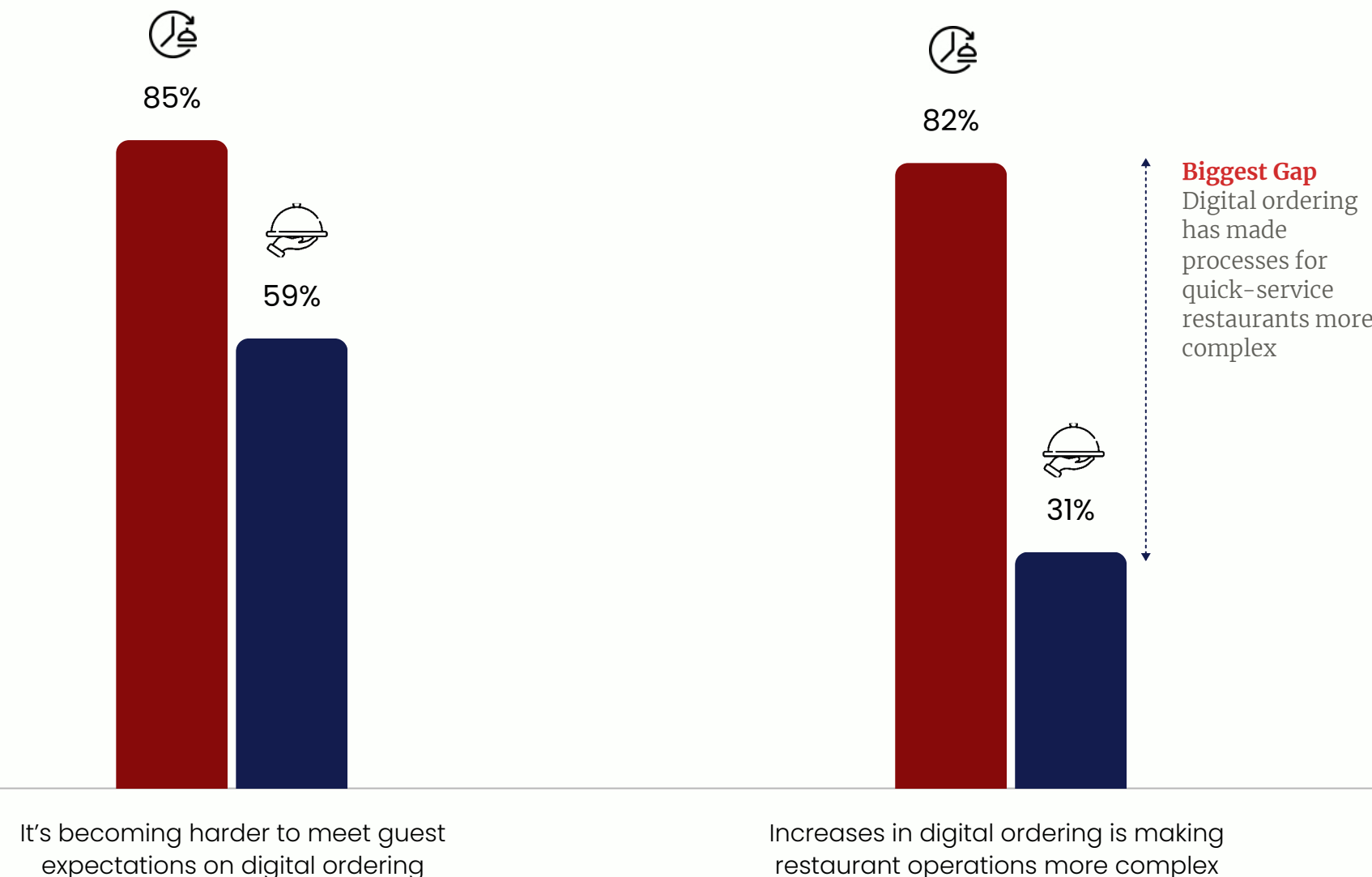
1. Incisiv Research

# Growth in digital is increasing restaurant complexity and guest expectations

While digital is a source of growth for restaurant brands, its rapid adoption has led to challenges in meeting guest expectations and restaurant operations. 85% of quick-service and 59% of full-service brands believe digital has made meeting guest expectations harder, and 82% of quick-service brands believe digital has made operations more complex.

## Top Business Challenges

● Quick-Service ● Full-Service



## Digital complexity drivers

### Operations

- **Uncoupled Order Volume:** Concurrent orders from traditional POS, brand app, and third-party apps create unpredictable demand
- **Third-Party Management:** Synchronizing technology and processes with multiple third-party delivery partners is complex
- **Customization:** Highly customized orders are more time-consuming to prepare and more prone to error

### Customer Experience

- **Speed of Service:** Meeting customers' elevated expectations for convenience and speed of delivery for digital orders is challenging
- **Personalization:** Customizing communications and ordering based on customer preferences and order history requires integrated systems
- **Mobile Apps:** Customers expect mobile capabilities for loyalty, menus, ordering and payments

# Quick-Service Restaurants: Drive-Thru Trends

## All quick-service brands will offer mobile order-ahead in the drive-thru by 2025

Drive-thrus are a strategic focus area for quick service brands, as they can account for as much as 70% of sales. Close to a third of quick-service brands (27%) will increase the average number of drive-thru lanes. To improve the overall performance of the drive-thru, all brands will offer mobile order-ahead by 2025, up from 54% that are currently offering it.

About 1 in 6 will deploy innovative technologies such as AI to help with autonomous order-taking using voice recognition. Pairing this with other guest data will help reduce errors and improve the brand's ability to personalize the customer experience.

**27%** will increase the number of drive-thru lanes.

Improvement Initiative	% adoption by 2025
Mobile order ahead for drive-thru	100%
Mobile order taking by staff (line-busting)	38%
GPS-based phone / vehicle location tracking	35%
AI-driven autonomous voice recognition	15%
Image based license plate recognition	15%
Creating drive-thru only restaurants	8%

## Reducing wait time and increasing order accuracy are the top business goals

A smooth and efficient drive-thru process can increase customer loyalty. On the other hand, any hindrances, such as long wait times or inaccurate orders, can lead to frustration and dissatisfaction among customers, causing them to look for alternatives.

Reducing wait time (92% of brands) and improving order accuracy (88% of brands) are the top goals for improving quick-service drive-thru performance because they directly impact the customer experience. Similarly, inaccurate orders can result in wasted time, a negative brand impression, and increased associate hours spent fulfilling the order.

Rank	Drive-Thru Improvement Goals	Important %
#1	Average drive-thru wait time	92%
#2	Accuracy of orders	88%
#3	Speed of order taking	81%
#4	Number of orders taken per hour	77%
#5	Speed of processing payments	73%

## Improving efficiency is the core driver of technology investment in 2023

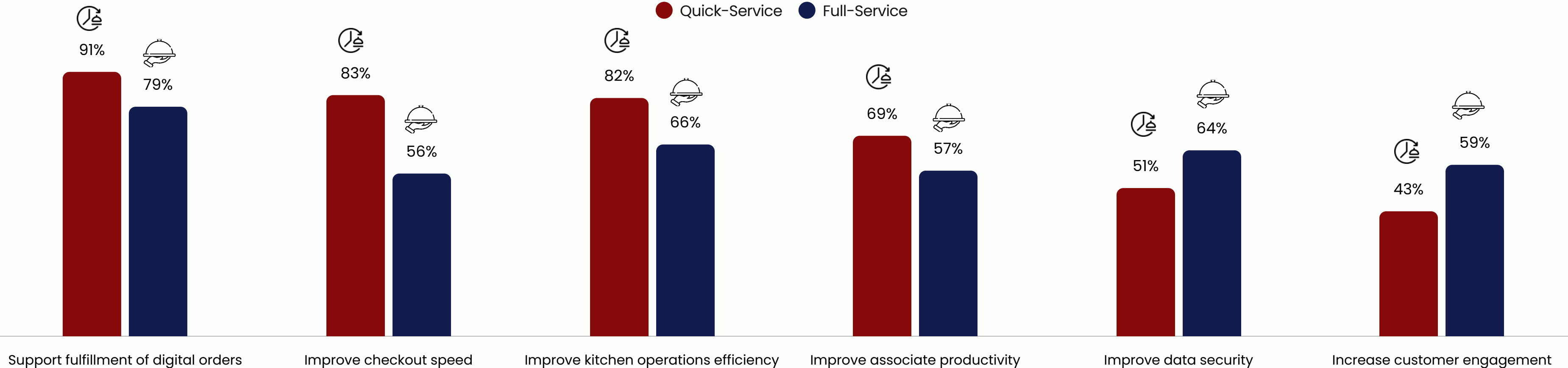
In the face of persistent inflation, labor challenges, and increased competition, restaurant brands are focusing on investments that yield direct improvements to operational efficiencies. The top three drivers of technology investment are improving digital order fulfillment, improving checkout speed, and increasing kitchen efficiency.

Improving the fulfillment of digital orders is the top driver of investment for quick-service and full-service brands as they deal with increased demand and operational complexity. That, along with checkout speed (the second investment priority), also directly impacts the main driver of the customer experience today - convenience. For full-service brands, improving customer engagement through new technology is more important than quick-service brands as they focus on creating a memorable experience and building customer relationships.



### Drivers of Store Technology Investments

● Quick-Service ● Full-Service





## Top Challenges for Investing in Technology

Challenge	Quick-Service	Full-Service
Lack of sufficient IT budget	94%	72%
Lack of skilled IT resources	83%	72%
Lack of operator buy-in	82%	69%
Inability to justify the ROI	80%	67%
Data and information security	62%	54%
Integrated digital strategy	60%	70%
No clear owner	55%	70%

 Top three challenges



**Budgets and resources are the top impediments to technology investments**

**Full-service brands need a comprehensive strategy and the right leadership**

Limited budgets and lack of resources are significant hindrances to investment in restaurant technology, because most restaurants operate with tight margins and have limited funds to invest in new technologies. Additionally, they face talent constraints at the corporate and store levels, limiting their ability to build new technology initiatives and provide adequate field support.

Quick-service brands have been quicker to adopt technology than full-service brands as their guests have come to expect digital ordering and engagement. Full-service brands are still trying to balance personalized guest experiences and digital adoption.

# Planned Technology Deployment (Quick-Service Restaurants)

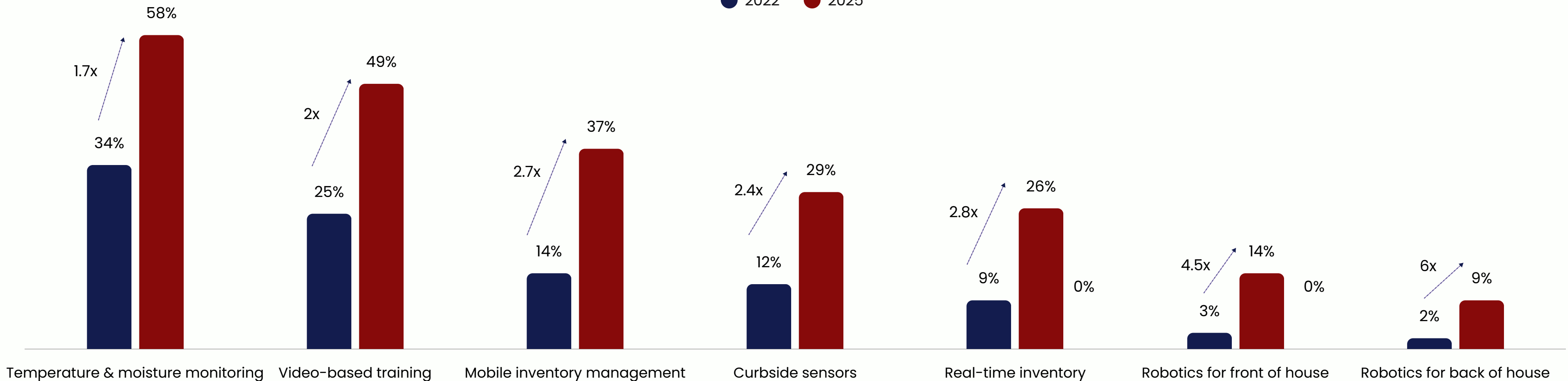
From 2022 to 2025, quick-service restaurants will see a significant increase in technology adoption, and the adoption of most technologies we studied will more than double. Areas of robotics, inventory management, and internet of things (IoT) devices (sensors) will experience the highest increase rates. Temperature and moisture sensors have the highest adoption rate and will increase from 34% in 2022 to 58% in 2025. This is a critical area of investment for restaurants as it helps maintain the quality and safety of food products, ensuring a consistent and high-quality dining experience for customers.

The adoption of real-time and mobile inventory management technologies will almost triple by 2025. With the ability to access real-time inventory information through mobile devices, restaurant managers and employees can quickly make informed decisions and respond to inventory needs even when they are not in the physical location. Furthermore, real-time inventory tracking can also help optimize ordering and stocking processes, leading to a more streamlined and efficient operation.

Curbside sensors are also rising and will grow from 9% adoption in 2022 to 26% in 2025. This increase will enable restaurants to improve their curbside pick-up and delivery services. While the current adoption is low, robotics is one of the fastest-growing areas of technology in the industry.

### Increase in Store Technology Deployments

● 2022 ● 2025





# Planned Technology Deployment (Full-Service Restaurants)

From 2022 to 2025, full-service restaurants will increase their rate of technology adoption faster than quick-service restaurants. Full-service restaurants have been slower to invest in new technology and are now playing catch-up. With an increased focus on health and safety, full-service restaurants are investing in technology to ensure that they meet and exceed food safety standards, providing their customers with a high-quality and safe dining experience. Their adoption of temperature and moisture monitoring sensors will increase to 69% in 2025.

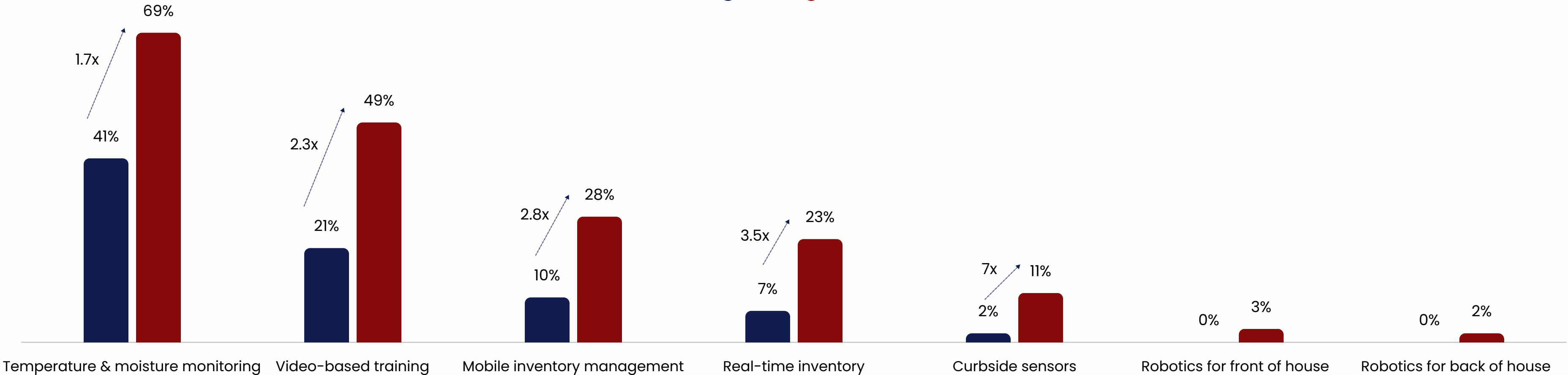
Full-service restaurants are focusing on improving their inventory management systems. The adoption of mobile inventory management is expected to increase from 10% in 2022 to 28% in 2025, while real-time inventory management adoption is expected to increase from 7% to 23%. This shift towards inventory management is due to the need for better visibility and control over food and supplies, which is critical for full-service restaurants to maintain their high level of service and quality.

While the adoption levels are low, we will see full-service brands experiment with robotics and curbside sensors as brands extend their partnership with third-party delivery apps.

Increase in Store Tech Deployment

## Increase in Store Technology Deployments

● 2022 ● 2025



## Labor shortages and productivity continue to be a challenge

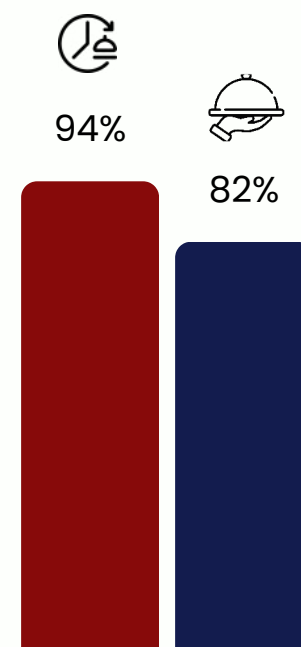
Only 44% of restaurants are satisfied with the productivity of their associates. The low productivity is due to several reasons, including a shortage of qualified workers, high employee turnover rates, and increased labor costs impacting the bottom line.

Additionally, many restaurants face operational challenges, such as complex menus, omnichannel ordering, new processes and demanding regulations. Restaurants also have yet to invest much in the associate experience and engagement, which makes talent acquisition and retention a challenge. Looking ahead, brands have to find a way to do more with less (associates), and partial and complete task automation is a clear focus.

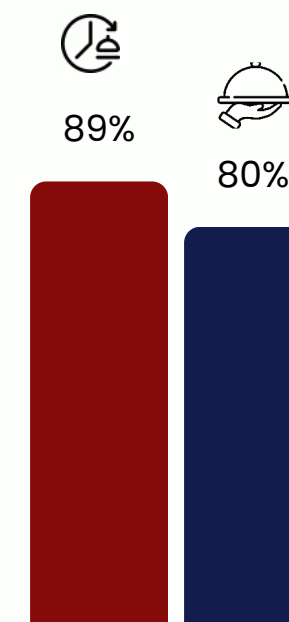


### Top Business Challenges

● Quick-Service ● Full-Service

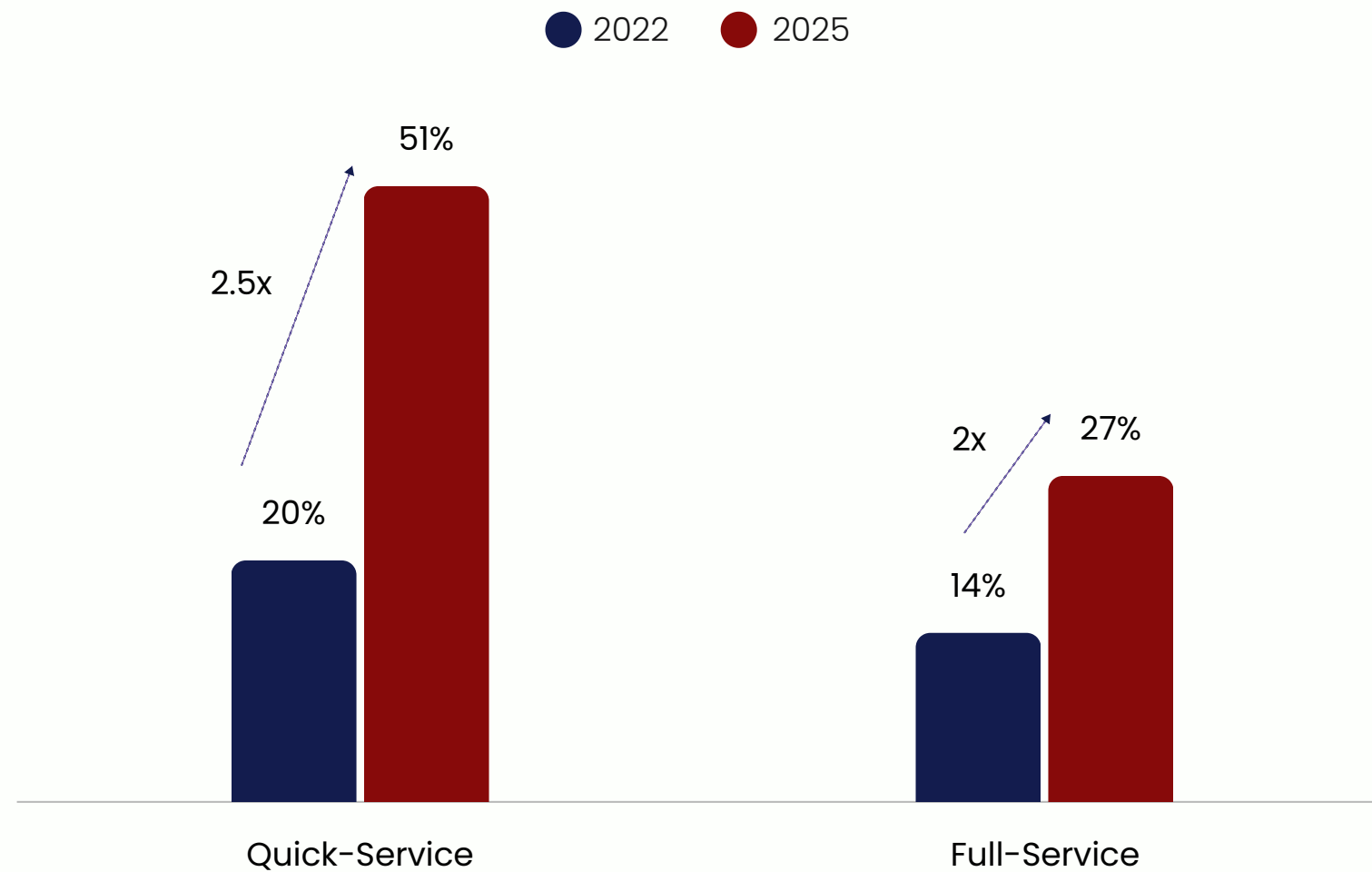


We don't have enough employees to properly staff our restaurants



Increasing wages to attract workers is negatively impacting our margins

## Current and Planned Automation of Store Tasks



## Automation of routine tasks is imminent

**29%** of all restaurant jobs could be reduced due to automation by 2025.

Restaurant operators are looking at task automation to reduce operational costs and improve overall process efficiency. Currently, only 17% of tasks are automated (20% for QSR and 14% for Full Service), but restaurant brands expect the level of automation to more than double by 2025.

Automation can reduce operational costs, improve accuracy and efficiency, and allow employees to focus on higher-value tasks. Highly repetitive, predictable, and low-complexity tasks are more likely to be automated. These include order taking, payment processing, floor cleaning, and inventory management.

Restaurants estimate that 29% of all jobs could be automated by 2025. While possible, this adoption depends on factors such as technological advancement, cost of automation, and restaurant adoption rates.

Automation is not necessarily a threat to jobs but rather a way to augment and improve work processes. The focus should be on reskilling employees to work alongside technology and preparing for the future of work in the restaurant industry.

By how much can automation reduce restaurant headcount by 2025?	% reduction
Quick-Service Brands	36%
Full-Service Brands	20%

# Increase in consumer devices and cloud applications will strain store infrastructure

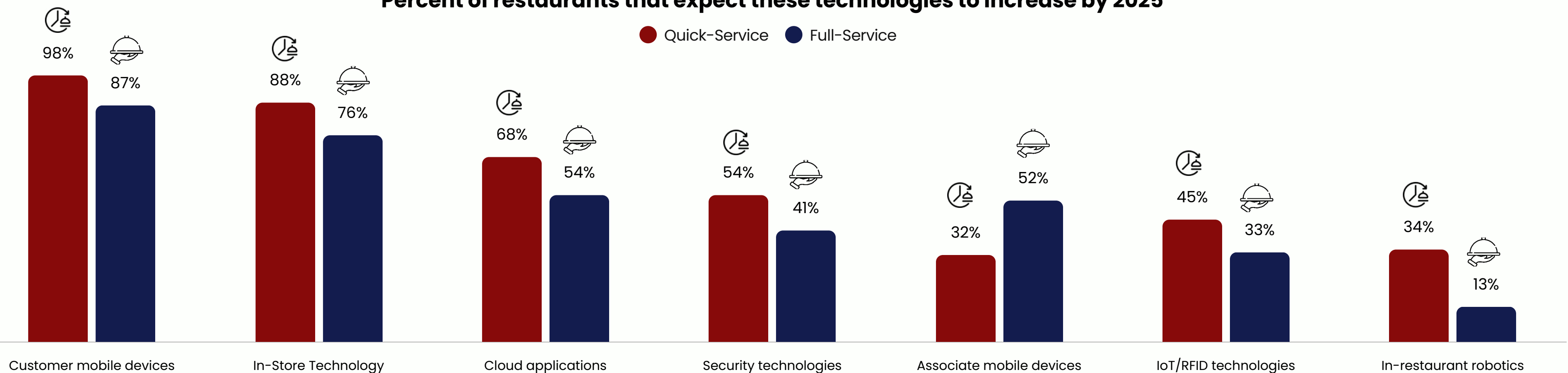
The rise in consumer mobile devices used in restaurants and the increased adoption of in-store cloud applications will pressure the store network and infrastructure. As customers use their mobile devices to order food, access the menu, look up offers, and make payments, it strains the restaurant's internet connection and network. Additionally, using cloud applications means that the volume, speed, and sensitivity of data transmitted will increase.

Stores need robust network infrastructure, secure Wi-Fi, and reliable internet connections to ensure that the technology operates smoothly and customer data is protected.

Associate mobile devices will be a top-three driver for full-service restaurants because it offers benefits, such as order taking, payments, improved communication with customers, and seamless integration with the kitchen.



### Percent of restaurants that expect these technologies to increase by 2025



KEY TAKEAWAYS

# Digital is reshaping the restaurant industry and is becoming the default way of engaging with customers. Brands need to invest in technology and upgrade their store infrastructure.

## Digital is transforming the restaurant industry

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Consumers increasingly prefer the convenience and ease of digital ordering and engagement, driving the shift towards digital in the restaurant industry. This in turn is increasing the complexity of restaurant operations.

**82%**

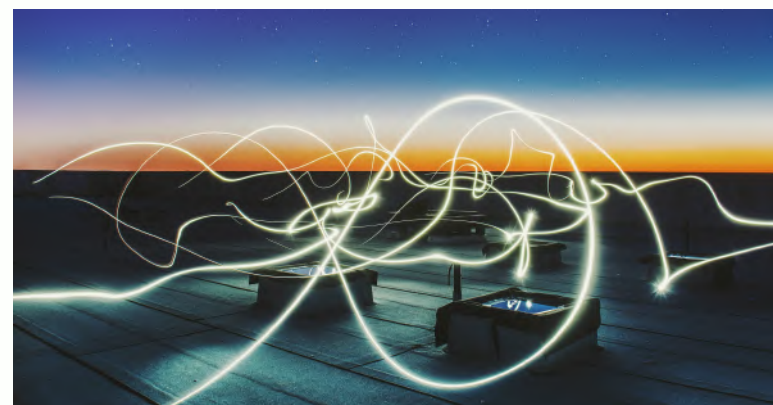
of quick-service restaurants state that digital ordering is making operations more complex.

**79%**

of restaurants will offer mobile ordering by 2024.

## Restaurants are focused on improving efficiency

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Restaurant brands are focused on improving their operational efficiency and bottom line in response to increasing digital complexity, uncertain macroeconomic environment, labor challenges and increased competition.

**94%**

of restaurants rate 'supporting fulfillment of digital orders' as an important goal driving technology investment.

**73%**

of restaurants rate 'improving kitchen efficiency' as an important goal driving technology investment.

## Labor challenges will spur increased task automation

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Labor challenges and the increased focus on efficiency will lead to higher technology adoption and automation levels. Brands will focus their investment on technologies that can deliver a clear ROI.

**39%**

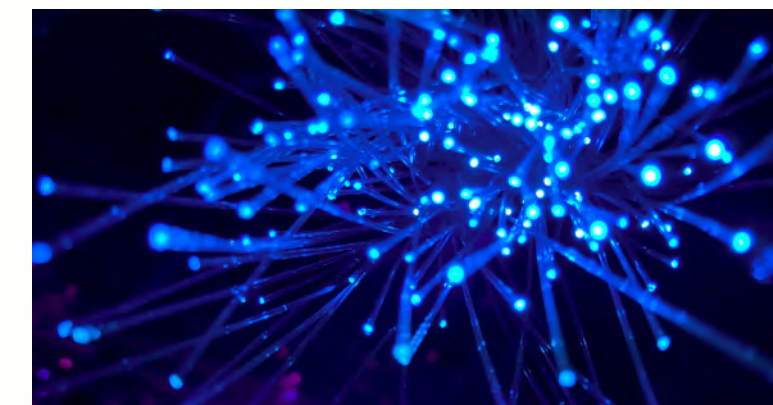
of all store tasks will be automated by 2025.

**29%**

reduction in store headcount due to automation by 2025.

## Increased restaurant technology will stress network infrastructure

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The increase in consumer mobile devices, new technology deployment, and the adoption of cloud applications will increase the demands on store networks.

**83%**

of restaurants expect their in-store technology to increase by 2025.

**72%**

of restaurants rate the increase in consumer devices as the driver to upgrade their network to 5G.



## Executive Perspective



**David Naumann**

Marketing Strategy Lead, Retail  
Verizon

Restaurants are confronted with disruptive market forces, including elevated digital-engagement expectations, labor shortages, supply chain issues and rising food costs. These forces are testing restaurateurs in new ways, but they are also creating new opportunities for forward-thinking industry leaders to adopt innovative technologies. Not only will restaurants that embrace automation be able to deliver better guest experiences with leaner staffing levels, but they'll also be poised to create greater operational efficiencies in what will become an increasingly technology-enabled industry.

As labor shortages and higher wages continue to impact the restaurant industry, restaurant operators are looking for ways to leverage technology to improve productivity and retain staff. When used in restaurants, automation can make workers' jobs better and more fulfilling. That's because it can free employees from the need to perform repetitive manual tasks, giving them more time for things that are more fun (and less frustrating), like serving guests.

Emerging technologies promise to create new efficiencies, enable new connected guest experiences and make it possible for restaurants to communicate with guests in entirely new ways. Success will be achieved by those restaurants that prioritize digital innovation to build smarter, more efficient and more agile enterprises. Transformation starts by bringing together disconnected systems to create powerful, modular and intelligent solutions that can enable new functionalities, smarter insights and faster decision-making. The result is Enterprise Intelligence.

Now is the perfect time to take action to future-ready your network with Verizon and Cisco, even if 5G is not yet available for all your restaurant locations. Enterprises can leverage Verizon's 4G LTE FWA today and easily upgrade to 5G when it becomes available in the future. The partnership between Verizon and Cisco helps customers looking for a secure, cost-effective subscription-based model that lets them consume network infrastructure on-demand and as needed.



## Executive Perspective



**Mark Scanlan**

Global Industry Lead for Retail  
Cisco

Over recent years, the restaurant industry has experienced a rapid innovation cycle as it strives to meet the ever-changing demands of consumers and business challenges. One of the most significant shifts has been towards digital ordering, curbside pickup, and home delivery options, which have become increasingly popular due to convenience and safety. As a result, digital ordering and curbside pickup have become the go-to channels for many consumers, resulting in a surge in demand for these services in most quick-service and fast-casual restaurants.

However, when demand outstrips capacity, slow service times, long lines, and customer frustration can lead to people abandoning the line altogether. A restaurant chain with 1,000 locations could lose up to \$90 million in potential revenue per year if 20 vehicles pull out of line daily, and most chains have little visibility into this type of customer behavior. As restaurants face increased competition and staffing challenges, improving these services and implementing new strategies will be crucial to their success in capturing incremental revenue and meeting consumer expectations. Fortunately, restaurant operators have access to a wealth of data to help them make informed decisions. But insights alone are not enough - they must be actionable.

With Cisco's technology solutions and Verizon's network, restaurant operators can achieve measurable business outcomes and stay ahead of the competition. Cisco offers automated actions that not only help lighten the load on overworked employees but also capture incremental revenue at the store. For instance, when customers leave the line, Cisco's solutions can respond and dynamically update menu boards to promote low-prep time items, thereby minimizing line growth. By taking these proactive measures, Cisco helps restaurants keep customers satisfied and returning for more, even in the face of stiff competition in the industry.

Together, Cisco and Verizon deliver integrated, end-to-end solutions to customers that help reduce business risk and protect their networks, applications, cloud services, and connected devices. All delivered by Verizon's world-class managed service capabilities and powered by Cisco's industry-leading technology.



## ABOUT INCISIV

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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.

[incisiv.com](https://www.incisiv.com)

## RESEARCH PARTNERS



## ABOUT VERIZON

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Verizon Communications Inc. (NYSE, Nasdaq: VZ) was formed on June 30, 2000 and is one of the world's leading providers of technology and communications services. Headquartered in New York City and with a presence around the world, Verizon generated revenues of \$136.8 billion in 2022. 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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## ABOUT CISCO

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Cisco (NASDAQ: CSCO) enables people to make powerful connections—whether in business, education, philanthropy, or creativity. Cisco hardware, software and service offerings are used to create the Internet solutions that make networks possible—providing easy access to information anywhere, at any time.

Cisco was founded in 1984 by a small group of computer scientists from Stanford University. Today, with more than 71,000 employees worldwide, a tradition of innovation continues with industry-leading products and solutions.

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