RESTAURANT

TECHNOLOGY
LANDSCAPE
REPORT
2024

NATIONAL
RESTAURANT
ASSOCIATION

ABOUT THIS REPORT

The data in this report assesses the current technology landscape in restaurants. The Association asked consumers about their interest in various tech options available in restaurants today and asked operators about their current investments in technology.

The Association's research is considered the authoritative source for restaurant industry sales projections and trends. It is based on analysis of the latest economic data and extensive surveys of restaurant operators and consumers.

The Association's research and analysis have a longstanding reputation for credibility, neutrality, and accuracy inside and outside the industry.

Hudson Riehle
Senior Vice President
Research & Knowledge Group

Bruce Grindy
Chief Economist & Vice President
Research & Knowledge Group

Chad Moutray
Vice President
Research & Knowledge Group

Beth Lorenzini
Director, Editorial Content
Enterprise Marketing & Communications

Helen Jane Hearn
Senior Director, Enterprise Programs
Enterprise Marketing & Communications

Daniela Smith
Director, Creative & Brand Strategy
Enterprise Marketing & Communications

TABLE OF CONTENTS

METHODOLOGY

The Restaurant Technology Landscape Report 2024 is based on surveys of restaurant operators and consumers.

Restaurant segment definitions:
The survey data in this report categorizes restaurants into 2 broad concepts: tableservice restaurants and limited-service restaurants. Within each segment, there are 3 categories of concepts:

Tableservice restaurants	***Limited-service restaurants***
Family dining, Casual dining and Fine dining	Quickservice, Fast Casual and Coffee & Snack

When responding to surveys, restaurant operators were asked to self-classify their operation into one of these 6 categories.

Definition of Generations in this report:

Gen Z Adult (18-27)	Gen Xer (44-59)
Millennial (28-43)	Baby Boomer (60-78)

A CHECK-IN ON TECH IN 2024

Tech adoption has accelerated, integrating more and more into our everyday life experiences. While operators have important opportunities to enhance the customer experience, amplify marketing and operate more efficiently through tech, research shows that consumer attitudes toward tech use in their restaurant experience varies greatly by demographic and service segment. While the majority of operators consider their application of technology in their businesses to be mainstream (vs. leading edge), what's most important is not necessarily to be leading edge but rather to strategically fit the tech to the customer base they serve.

From the customers' perspective, mainstream technology in the 3 restaurant occasions/experiences–fullservice, limited-service and delivery–seem to fit into 3 categories: nice-to-have, want-to-have and must-have. By mainstream technology, the Association refers to the convenience-enhancing options that are already widely available for use, even if they aren't necessarily being used by a lot of restaurants.

FULLSERVICE TECH: NICE-TO-HAVE

For most customers, engagement with employees is an integral part of the experience of going out to eat at a fullservice restaurant, and the data suggests this isn't changing any time soon. Most consumers don't appear interested in trading this high-touch interaction for a completely tech-driven experience. Still, the data clearly indicates that customers would embrace some convenience-enhancing tech options to boost or improve their overall experience. The most popular of these would make paying the check easier and faster. It's not essential that fullservice restaurants have these options, but many consumers think they would be nice to have.

LIMITED-SERVICE TECH: WANT-TO-HAVE

This quickservice segment incorporates a more limited level of employee/customer interaction in the experience by design, relative to fullservice. But the data suggests many younger customers actually desire fewer human-provided services in these restaurant experiences. They welcome technology that fills the gaps to make their limited-service experience faster and more efficient, and this is true across all ages. It's not necessarily a deal breaker if limited-service restaurants don't have these tech options, but a solid majority of customers want them.

DELIVERY TECH: MUST-HAVE

Compared with on-premises restaurant occasions, technology is already baked into the delivery experience for many consumers. Convenience-enhancing options such as web- or app-based ordering are a must-have, rather than an option, and are a deal breaker to the point customers will choose another restaurant if they can't use technology to order. It's much more important for operators to incorporate the baseline tech options that delivery customers expect, while keeping an eye on new developments that will set them apart from the competition.

Restaurant operators recognize the value tech brings to their business.

76% of operators say using technology gives them a competitive edge, but many believe their restaurants could do more to keep up on the tech front.

Only 13% think their restaurant is on the leading edge in terms of how they're using technology compared with their peers; 23% think their operation is lagging.

64% consider their use of technology to be mainstream, which means the restaurant industry is still far from becoming a tech-centric sector.

As a result, many operators are investing in technology.

4

WHAT CONSUMERS **WANT**

TECH IN **FULLSERVICE**

Customers expect and enjoy the hospitality employees provide in fullservice dining experiences and that's not likely to change anytime soon. Aside perhaps from being able to pay the check digitally without the employee's back-and-forth, use of technology in fullservice service is nice to have but not imperative.

Given a list of 11 tech-related options at tableservice restaurants, fullservice restaurant customers were asked how likely they'd be to use each one.

ACCESS TO **COMPUTER TABLETS AT THE TABLE** TOPPED THE LIST

65% of fullservice customers say they'd likely use it to pay the check; 60% would use it to place an order.

A solid majority of Gen Z adults, millennials and Gen Xers say they'd use these options; fewer than half of baby boomers said they would.

A majority of fullservice customers say they're comfortable using a smartphone app to either place an order (63%) or pay (55%).

OTHER TECH-DRIVEN PAYMENT OPTIONS ARE ALSO POPULAR

62% of fullservice customers would pay the check using contactless or mobile payment options and 57% would use a digital wallet (e.g., Apple Pay, Samsung Pay, Google Wallet, PayPal, Venmo).

Affinity for these options is much more prevalent among younger consumers.
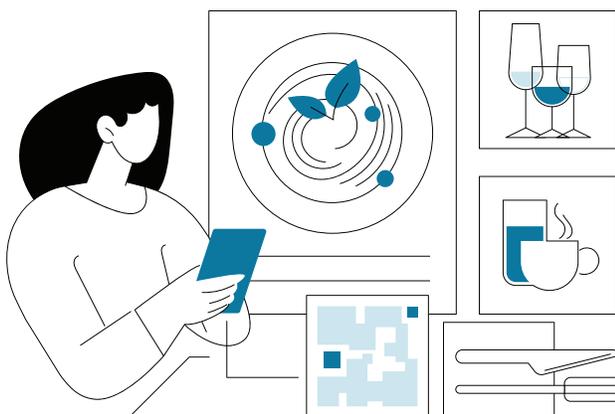
QR codes in the dining experience show up a little farther down the list.

While **59%** of fullservice customers say they'd pull up a menu on their smartphone using a QR code, fewer than half are comfortable using it to place an order (48%) or pay (46%).

Baby boomers are the least likely to say they'd use QR codes at fullservice restaurants.

CUSTOMERS SAY...

"Having these tech options is always a plus in my book. You don't have to wait on someone to come take the order and you don't have to wait around for the bill; you can just pay and go."

NATIONAL
RESTAURANT
ASSOCIATION

MOST COMFORTABLE TECH OPTIONS IN FULLSERVICE RESTAURANTS

% of fullservice customers that would use each option if it was offered by a tableservice restaurant in their area

	All Adults	Gen Z Adults (18-27)	Millennials (28-43)	Gen Xers (44-59)	Baby Boomers (60-78)
Pay the check using a computer tablet at the table	65%	67%	79%	68%	47%
Place an order using a smartphone app	63%	79%	85%	67%	33%
Pay the check using contactless or mobile payment options	62%	73%	82%	64%	37%
Place an order using a computer tablet at the table	60%	76%	76%	64%	36%
Access the menu on a smartphone using a QR code	59%	69%	78%	66%	30%
Pay the check using a digital wallet (e.g., Apple Pay, Samsung Pay, Google Wallet, PayPal, Venmo)	57%	72%	80%	60%	25%
Pay the check using a smartphone app	55%	64%	76%	63%	24%
Place an order on a smartphone using a QR code	48%	60%	69%	52%	21%
Pay the check on a smartphone using a QR code	46%	58%	65%	52%	16%

Source: National Restaurant Association • Base: Consumers who went out to eat at a sit-down tableservice restaurant in the past 6 months

27% of fullservice operators plan to devote resources to smartphone app development in 2024 vs. 40% of limited-service operators.

When it comes to where fullservice customers are least comfortable with tech, 37% say they'd order food that gets delivered by automated systems or robots; and 29% say they'd like their food to be prepared by automated systems or robots.

ROBOTS ARE STILL IN THE FUTURE… FOR NOW

% of fullservice customers that would use each option if it was offered by a tableservice restaurant in their area

Order food that gets **prepared by automated systems or robots**
Order food that gets **delivered to customers by automated systems or robots**
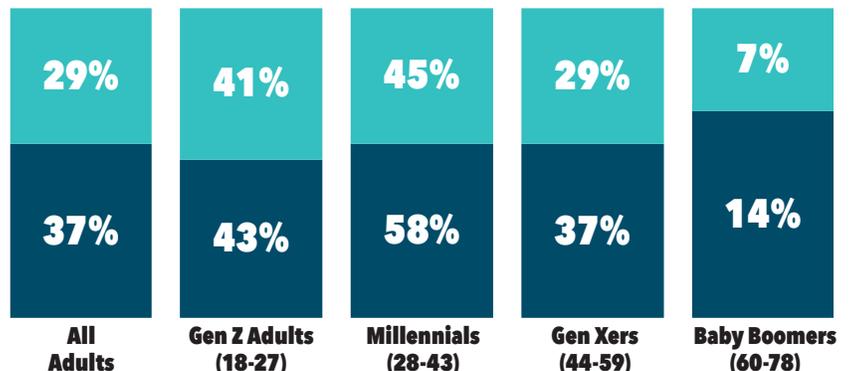
	All Adults	Gen Z Adults (18-27)	Millennials (28-43)	Gen Xers (44-59)	Baby Boomers (60-78)
Prepared	29%	41%	45%	29%	7%
Delivered	37%	43%	58%	37%	14%

*Source: National Restaurant Association*
Base: Consumers who went out to eat at a sit-down tableservice restaurant in the past 6 months

MILLENNIALS & GEN Z EMBRACE FULLSERVICE TECH

How tech options impact fullservice customers' experience at tableservice restaurants

- **Positive impact** (teal)
- **Negative impact** (medium blue)
- **No impact** (dark blue)
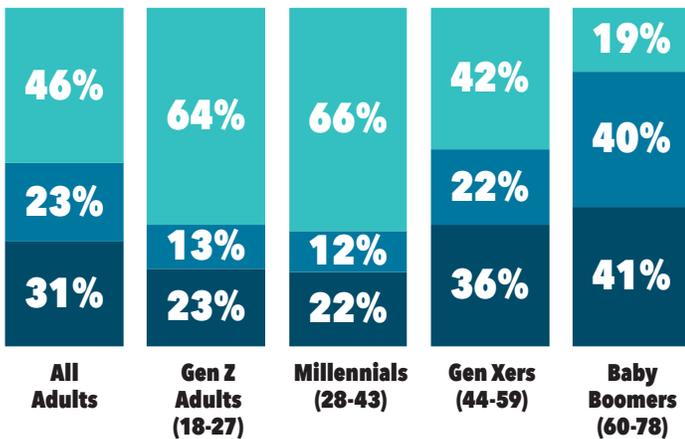
|	All Adults	Gen Z Adults (18-27)	Millennials (28-43)	Gen Xers (44-59)	Baby Boomers (60-78)
Positive impact	46%	64%	66%	42%	19%
Negative impact	23%	13%	12%	22%	40%
No impact	31%	23%	22%	36%	41%

Source: National Restaurant Association
Base: Consumers who went out to eat at a sit-down tableservice restaurant in the past 6 months

WHERE CUSTOMERS THINK FULLSERVICE TECH SHOULD BE APPLIED

One area where technology would impact customers' experience at tableservice restaurants

- Make **paying** easier & faster
- Make **ordering** easier & faster
- Provide more **detailed info about food** (nutrition, calories, allergens, sourcing)
- Provide an accurate time **when the food will be delivered** to the table
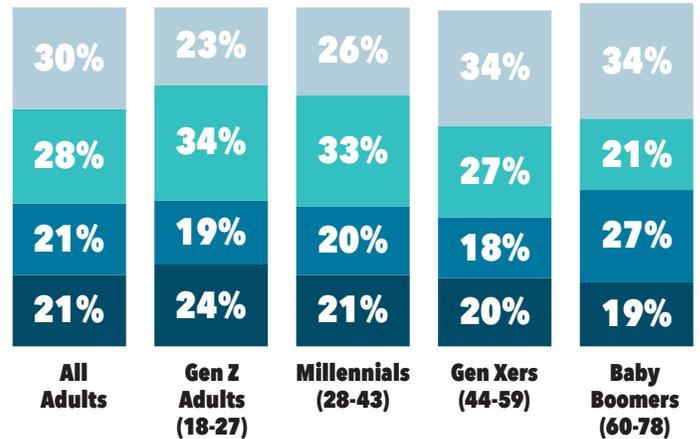
|	All Adults	Gen Z Adults (18-27)	Millennials (28-43)	Gen Xers (44-59)	Baby Boomers (60-78)
Make paying easier & faster	30%	23%	26%	34%	34%
Make ordering easier & faster	28%	34%	33%	27%	21%
Detailed info about food	21%	19%	20%	18%	27%
Accurate delivery time	21%	24%	21%	20%	19%

Source: National Restaurant Association
Base: Consumers who went out to eat at a sit-down tableservice restaurant in the past 6 months

MORE FULLSERVICE TECH? NOT SO FAST

How fullservice customers would like to see tableservice restaurants incorporate tech in the future

- **More technology options** (teal)
- **Fewer technology options** (medium blue)
- **Keep about the same** (dark blue)
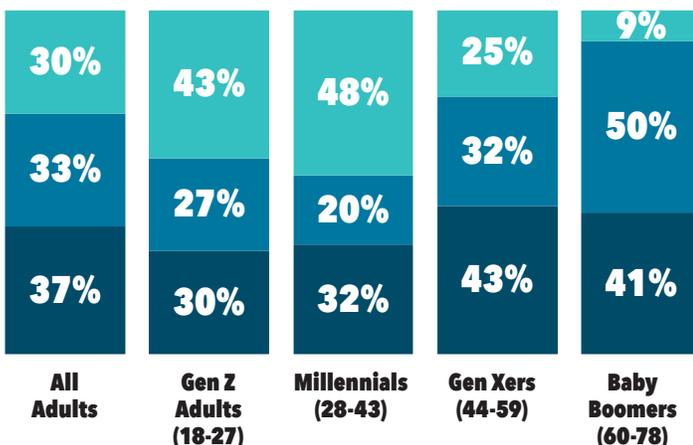
|	All Adults	Gen Z Adults (18-27)	Millennials (28-43)	Gen Xers (44-59)	Baby Boomers (60-78)
More technology options	30%	43%	48%	25%	9%
Fewer technology options	33%	27%	20%	32%	50%
Keep about the same	37%	30%	32%	43%	41%

Source: National Restaurant Association
Base: Consumers who went out to eat at a sit-down tableservice restaurant in the past 6 months

TRADITIONAL SERVICE STILL PREFERRED OVER TECH

How fullservice customers would choose between 2 similar tableservice restaurants based on technology

- Fullservice restaurant that **incorporates technology** into the experience (teal)
- Fullservice restaurant that offers **traditional service** from employees (dark blue)

	All Adults	Gen Z Adults (18-27)	Millennials (28-43)	Gen Xers (44-59)	Baby Boomers (60-78)
Incorporates technology	36%	50%	53%	36%	12%
Traditional service	64%	50%	47%	64%	88%

Source: National Restaurant Association
Base: Consumers who went out to eat at a sit-down tableservice restaurant in the past 6 months

RESTAURANT **TECHNOLOGY** LANDSCAPE
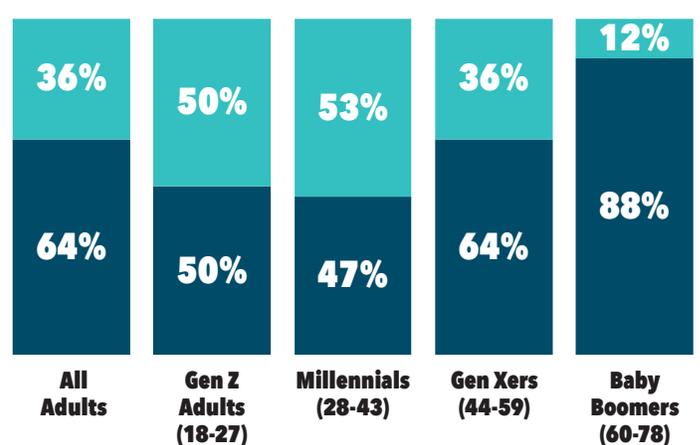
WHAT CONSUMERS WANT

TECH IN LIMITED-SERVICE

Limited-service is just that, limited. Most quickservice customers want to use technology throughout the process, believing it makes the transaction faster, more accurate and more efficient.

Customers given a list of 14 tech-related options at quickservice restaurants, delis and coffee shops were asked how likely they'd be to use each one.

TOPPING THE LIST: SMARTPHONE APPS

70% say they'd use an app to order and 65% to pay. Most Gen Z adults, millennials and Gen Xers would use a smartphone app in a limited-service restaurant.

Even though fewer than half of baby boomers reported similarly, they're much more likely to accept use of smartphone apps in limited-service than fullservice restaurants.

The ability to pay when the order is placed on the restaurant's website is another popular option.

42% of limited-service operators plan to invest in contactless or mobile pay technology in 2024.

The ability to order (65%) or pay (63%) using a self-service electronic kiosk is popular among most limited-service customers—particularly the younger ones.

One way to increase ordering efficiency is to give customers the option of ordering by talking to a live person on a video screen. Nearly 6 in 10 limited-service customers (58%) say they'd use this option.

QR CODES AT LIMITED-SERVICE RESTAURANTS MAKE THE LIST

57% of limited-service customers say they'd access the menu on a smartphone using a QR code, while roughly half would use it to place an order (52%) or pay the check (48%).

MOST COMFORTABLE TECH OPTIONS AT LIMITED-SERVICE RESTAURANTS

% of customers that would use each option if it was offered by a limited-service restaurant in their area

	All Adults	Gen Z Adults (18-27)	Millennials (28-43)	Gen Xers (44-59)	Baby Boomers (60-78)
Place an order using a smartphone app	70%	82%	87%	74%	47%
Place an order and pay in advance on the restaurant's website, before picking up the food or beverages at the restaurant	68%	74%	81%	72%	51%
Pay using contactless or mobile payment options	68%	78%	85%	71%	46%
Pay the check using a smartphone app	65%	77%	86%	70%	40%
Place an order using a self-service electronic kiosk	65%	73%	82%	72%	40%
Pay using a self-service electronic kiosk	63%	76%	81%	71%	36%
Pay using a digital wallet (e.g., Apple Pay, Samsung Pay, Google Wallet, PayPal, Venmo)	61%	78%	83%	64%	32%
Order food by talking to a live person on a video screen	58%	42%	63%	63%	57%
Access the menu on a smartphone using a QR code	57%	71%	76%	58%	34%
Place an order on a smartphone using a QR code	52%	67%	72%	53%	27%
Pay the check on a smartphone using a QR code	48%	57%	69%	52%	24%

Source: National Restaurant Association • Base: Consumers who went out to eat or picked up food or beverages at a quickservice restaurant, deli or coffee shop in the past 6 months

NATIONAL RESTAURANT ASSOCIATION

When it comes to tech they're less comfortable using, limited-service customers – like their fullservice counterparts – cite automated systems and robots.

36% say they'd order food that gets delivered by automated systems or robots and 30% would like their food to be prepared by them.

Limited-service customers have no problem ordering through a live person via video screen, but they're not enamored of AI-generated interactions. About a third of these customers say they'd like this ordering option.

THESE LIMITED–SERVICE TECH OPTIONS NEED TIME TO GROW

% of customers that would use each option if it was offered by a limited-service restaurant in their area

- Order food that gets **delivered to customers by automated systems or robots**
- Order food by talking to an **Artificial Intelligence (AI) generated person** on a video screen
- Order food that gets **prepared by automated systems or robots**
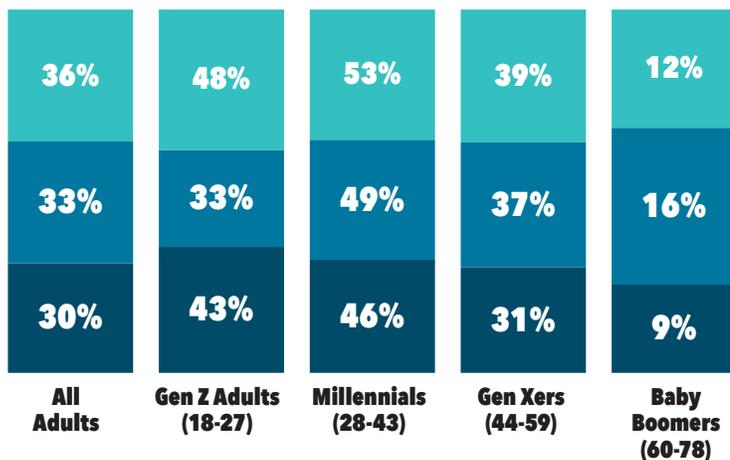
|	All Adults	Gen Z Adults (18-27)	Millennials (28-43)	Gen Xers (44-59)	Baby Boomers (60-78)
Delivered	36%	48%	53%	39%	12%
AI person	33%	33%	49%	37%	16%
Prepared	30%	43%	46%	31%	9%

Source: National Restaurant Association
Base: Consumers who went out to eat or picked up food or beverages at a quickservice restaurant, deli or coffee shop in the past 6 months

THE IMPACT OF LIMITED-SERVICE TECH

How tech options impact limited-service customers' experience at quickservice restaurants, delis and coffee shops
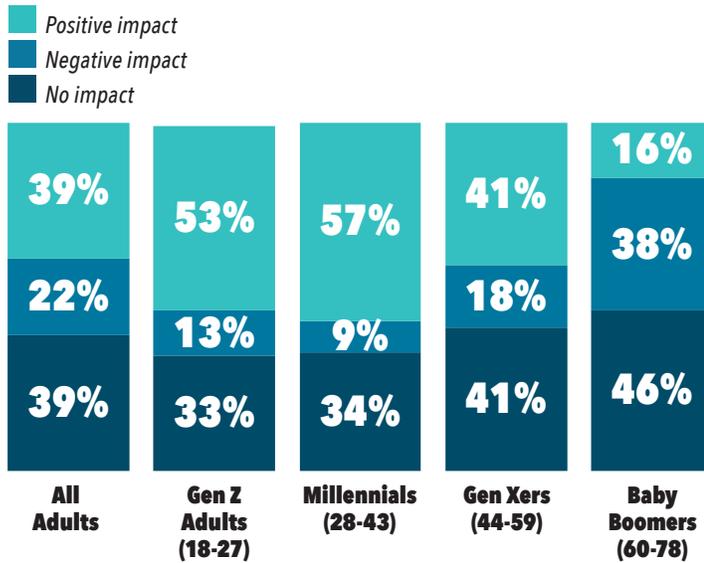
■ Positive impact
■ Negative impact
■ No impact

|	All Adults	Gen Z Adults (18-27)	Millennials (28-43)	Gen Xers (44-59)	Baby Boomers (60-78)
Positive impact	39%	53%	57%	41%	16%
Negative impact	22%	13%	9%	18%	38%
No impact	39%	33%	34%	41%	46%

Source: National Restaurant Association
Base: Consumers who went out to eat or picked up food or beverages at a quickservice restaurant, deli or coffee shop in the past 6 months

FASTER, EASIER ORDERING THROUGH TECH TOPS WISH LIST

Limited-service customers' choice of the one area where technology would impact their experience at quickservice restaurants
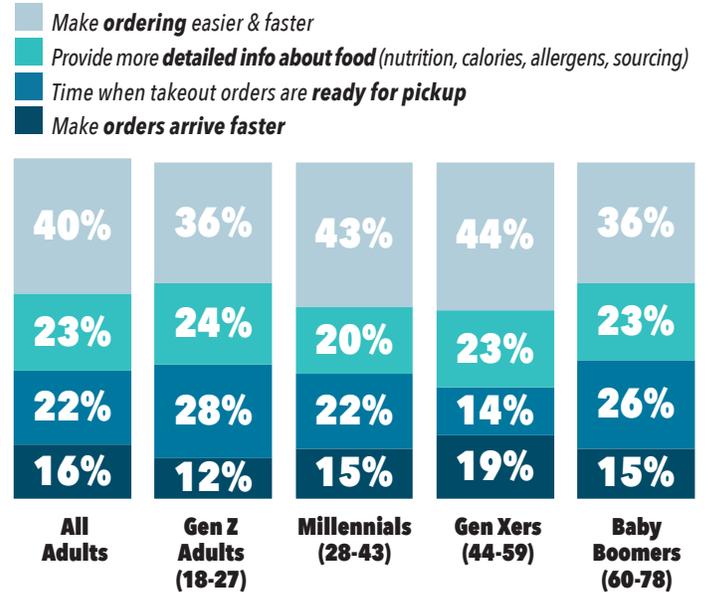
■ Make **ordering** easier & faster
■ Provide more **detailed info about food** (nutrition, calories, allergens, sourcing)
■ Time when takeout orders are **ready for pickup**
■ Make **orders arrive faster**

|	All Adults	Gen Z Adults (18-27)	Millennials (28-43)	Gen Xers (44-59)	Baby Boomers (60-78)
Make ordering easier & faster	40%	36%	43%	44%	36%
Provide more detailed info about food	23%	24%	20%	23%	23%
Time when takeout orders are ready for pickup	22%	28%	22%	14%	26%
Make orders arrive faster	16%	12%	15%	19%	15%

Source: National Restaurant Association
Base: Consumers who went out to eat or picked up food or beverages at a quickservice restaurant, deli or coffee shop in the past 6 months

OPINIONS VARY WHEN IT COMES TO MORE TECH IN QUICKSERVICE

How customers would like to see quickservice venues incorporate tech
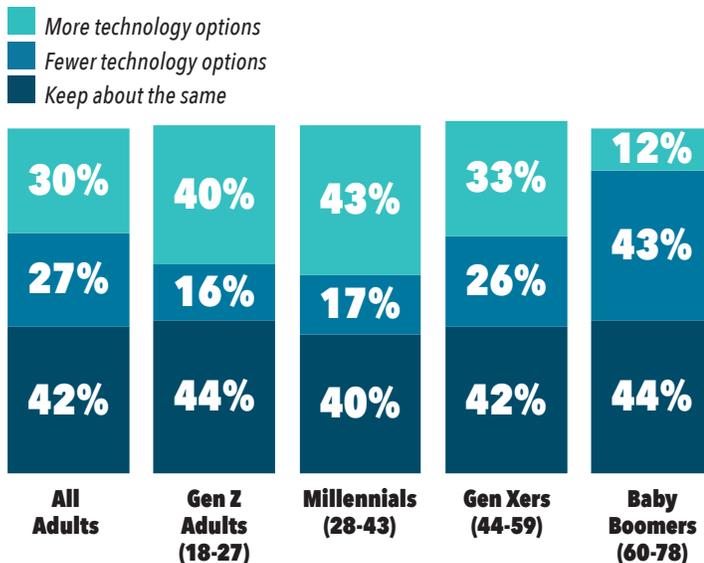
■ More technology options
■ Fewer technology options
■ Keep about the same

	All Adults	Gen Z Adults (18-27)	Millennials (28-43)	Gen Xers (44-59)	Baby Boomers (60-78)
More technology options	30%	40%	43%	33%	12%
Fewer technology options	27%	16%	17%	26%	43%
Keep about the same	42%	44%	40%	42%	44%

Source: National Restaurant Association
Base: Consumers who went out to eat or picked up food or beverages at a quickservice restaurant, deli or coffee shop in the past 6 months

LIMITED-SERVICE CUSTOMERS PREFER TRADITIONAL SERVICE

How customers would choose between 2 similar limited-service restaurants based on technology
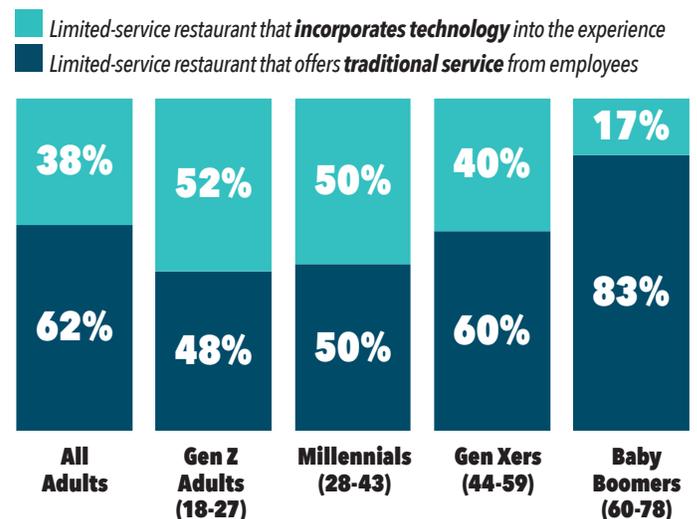
■ Limited-service restaurant that **incorporates technology** into the experience
■ Limited-service restaurant that offers **traditional service** from employees

	All Adults	Gen Z Adults (18-27)	Millennials (28-43)	Gen Xers (44-59)	Baby Boomers (60-78)
Incorporates technology	38%	52%	50%	40%	17%
Traditional service	62%	48%	50%	60%	83%

Source: National Restaurant Association
Base: Consumers who went out to eat or picked up food or beverages at a limited-service restaurant, deli or coffee shop in the past 6 months

NATIONAL RESTAURANT ASSOCIATION

RESTAURANT **TECHNOLOGY** LANDSCAPE

WHAT
CONSUMERS
WANT
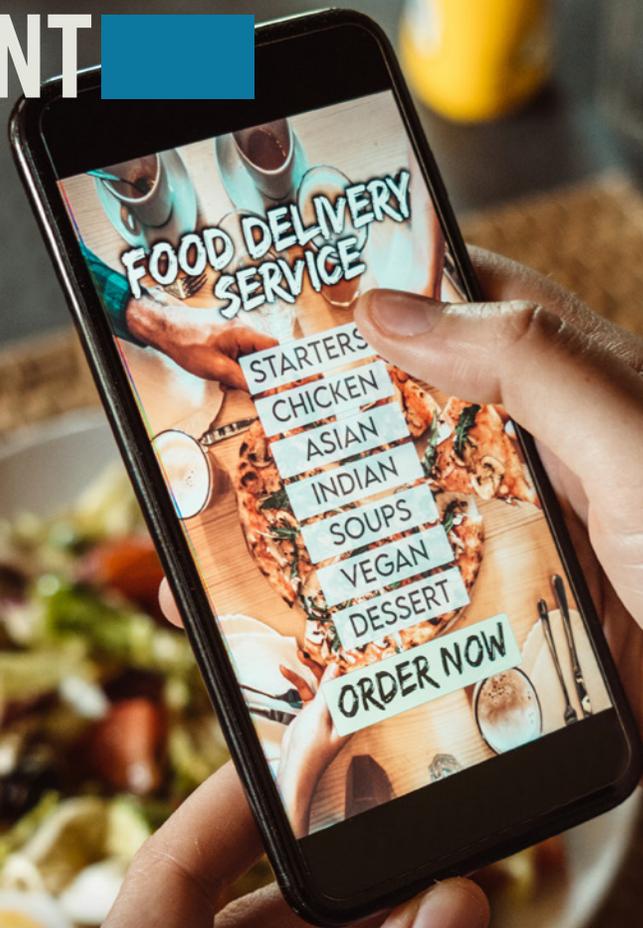
TECH IN
DELIVERY SERVICE

Compared with the fullservice and limited-service sectors, use of tech in the delivery segment is already baked into consumers' expectations. They expect to be able to access, order, customize and pay for delivery orders through their computers or smartphones and if they can't, they'll order from somewhere else.

Delivery customers weighed a list of 8 tech-related options at restaurants that deliver food and beverage orders and were asked how likely they'd be to use each one.

Off-premises customers are much more likely than on-premises customers to embrace the use of technology in their experience, so many of these options are already mainstream.

84% **report they'd order delivery using a restaurant's website.**

8 in 10 **delivery customers–including 59% of baby boomers–say they'd order delivery using a smartphone app.**

These customers are much more likely to embrace electronic payment options. 79% of delivery customers would go for contactless or mobile payment options; 73% would pay using a digital wallet such as Apple Pay, Samsung Pay, Google Wallet, PayPal or Venmo.

71% **say they'd be likely to order delivery through a third-party service such as DoorDash, Grubhub, Uber Eats or Postmates.**

CUSTOMERS SAY...

"Getting food delivered is so convenient and saves me time and effort. Plus, I get to enjoy delicious food in the comfort of my home. It's like having a restaurant experience without leaving my doorstep."
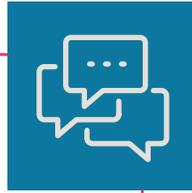
COMFORTABLE TECH OPTIONS FOR DELIVERY CUSTOMERS

% of customers that would use each option if it was offered by a restaurant or fast food place they use for delivery

	All Adults	Gen Z Adults (18-27)	Millennials (28-43)	Gen Xers (44-59)	Baby Boomers (60-78)
Order delivery using a restaurant's website	84%	84%	90%	89%	71%
Order delivery using a smartphone app	80%	84%	88%	86%	59%
Pay using contactless or mobile payment options	79%	82%	86%	84%	57%
Pay using a digital wallet (e.g., Apple Pay, Samsung Pay, Google Wallet, PayPal, Venmo)	73%	85%	83%	76%	43%
Order through a third-party service such as DoorDash, Grubhub, Uber Eats or Postmates	71%	78%	84%	69%	43%

Source: National Restaurant Association • Base: Consumers who ordered food for delivery from a restaurant in the past 6 months

When it comes to where they are less comfortable with tech, fewer than half of customers (45%) are likely to order delivery using a voice-enabled platform such as Amazon Alexa, Google Home or iPhone's Siri.

Fewer than 4 in 10 delivery customers say they'd order food that gets delivered by a drone or robot.

16% of operators plan to invest in Artificial Intelligence (AI) integration (including voice recognition) in 2024.

LESS DESIRABLE TECH OPTIONS WHEN ORDERING DELIVERY

% of customers that would use each option if it was offered by a restaurant or fast food place they use for delivery

- Order delivery using a **voice-enabled platform** (e.g., Amazon Alexa, Google Home, iPhone's Siri)
- Order food that gets **delivered from a restaurant by a drone**
- Order food that gets **delivered from a restaurant by a robot**
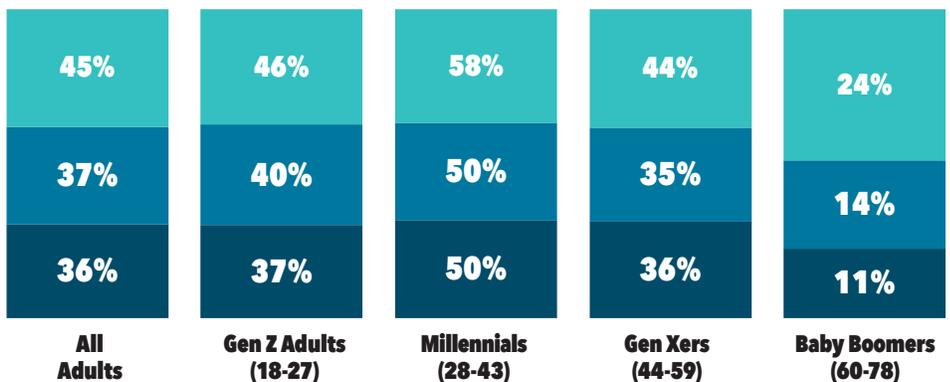
	All Adults	Gen Z Adults (18-27)	Millennials (28-43)	Gen Xers (44-59)	Baby Boomers (60-78)
voice-enabled platform	45%	46%	58%	44%	24%
drone	37%	40%	50%	35%	14%
robot	36%	37%	50%	36%	11%

Source: National Restaurant Association • Base: Consumers who ordered food for delivery from a restaurant in the past 6 months

NATIONAL RESTAURANT ASSOCIATION

RESTAURANT **TECHNOLOGY** LANDSCAPE

WHERE CUSTOMERS STAND ON DELIVERY TECH

How technology options impact customers' personal experience when ordering delivery

- Positive impact
- Negative impact
- No impact
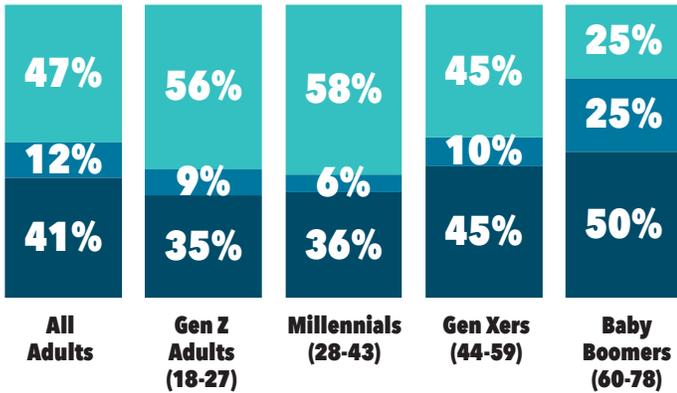
	All Adults	Gen Z Adults (18-27)	Millennials (28-43)	Gen Xers (44-59)	Baby Boomers (60-78)
Positive impact	47%	56%	58%	45%	25%
Negative impact	12%	9%	6%	10%	25%
No impact	41%	35%	36%	45%	50%

Source: National Restaurant Association
Base: Consumers who ordered food for delivery from a restaurant in the past 6 months

WHO WANTS MORE TECH–ENHANCED DELIVERY?

How customers would like to see restaurants incorporate delivery tech the future

- More technology options
- Fewer technology options
- Keep about the same
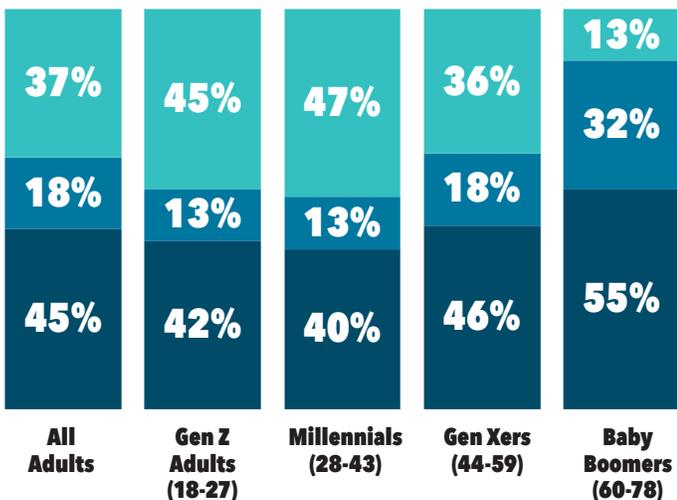
	All Adults	Gen Z Adults (18-27)	Millennials (28-43)	Gen Xers (44-59)	Baby Boomers (60-78)
More technology options	37%	45%	47%	36%	13%
Fewer technology options	18%	13%	13%	18%	32%
Keep about the same	45%	42%	40%	46%	55%

Source: National Restaurant Association
Base: Consumers who ordered food for delivery from a restaurant in the past 6 months

AN APPETITE FOR TECH WHEN GETTING FOOD DELIVERED

How customers would choose between 2 similar delivery restaurants based on technology

- Restaurant that *incorporates technology* into the delivery experience
- Restaurant that offers *traditional delivery service* from employees
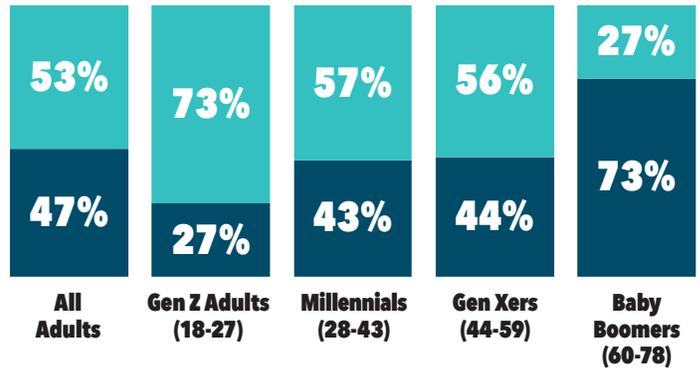
	All Adults	Gen Z Adults (18-27)	Millennials (28-43)	Gen Xers (44-59)	Baby Boomers (60-78)
Incorporates technology	53%	73%	57%	56%	27%
Traditional delivery	47%	27%	43%	44%	73%

Source: National Restaurant Association
Base: Consumers who ordered food for delivery from a restaurant in the past 6 months
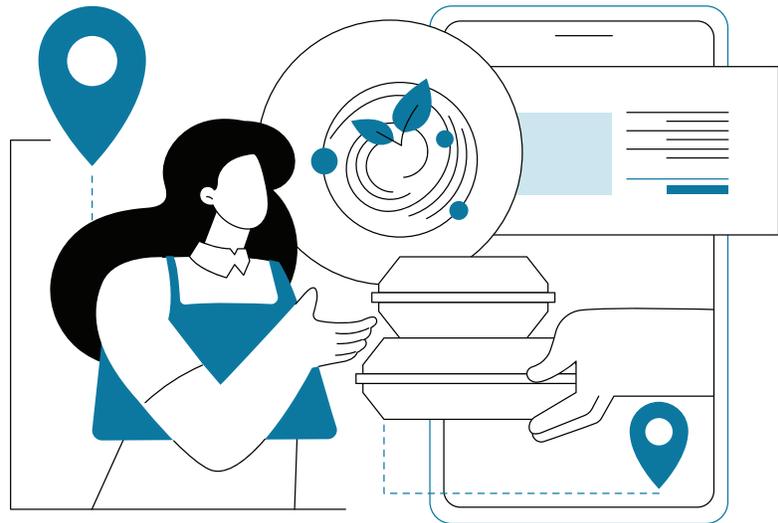
HOW CUSTOMERS WOULD USE DELIVERY TECH

Delivery customers cite one area where technology would impact their delivery experience

	All Adults	Gen Z Adults (18-27)	Millennials (28-43)	Gen Xers (44-59)	Baby Boomers (60-78)
To make ordering easier and faster	33%	32%	34%	31%	33%
To provide an accurate time when orders will be delivered	24%	23%	25%	19%	30%
To make delivery faster	24%	26%	20%	31%	16%
To improve the packaging used for delivery which would allow for a greater variety of food items available	19%	18%	21%	18%	20%

Source: National Restaurant Association • Base: Consumers who ordered food for delivery from a restaurant in the past 6 months

OPERATOR PERSPECTIVE

The technology is smart for customers and team members, which means it's a clear win-win for us as a high-growth brand.

When First Watch reviews new technologies, it's always through the lens of the brand's "You First" culture—how will this technology benefit its customers or team members?

According to Association research, the top area where fullservice customers say tech would impact their experience is systems that make paying easier and faster.

Working closely with a pay-by-smartphone tech provider, First Watch implemented a system that imprints each bill with a QR code. To pay, the customer scans the code with their cell and pays the bill using Apple Pay, Google Pay, or a credit card. The process allows them to split the bill, leave tips and even sign up for company news and special offers.

Customers are then free to head out without visiting the check-out register.

"During a recent week, more than 125,000 First Watch customers elected to use the new feature, which is available in 420 of our corporate-owned restaurants,"

says Rob Conti, SVP of Information Technology for the 520-unit brand. "Assuming we save 30 seconds per transaction at the register, paying at the table saved more than 1,000 combined customer and employee hours."

The system's payment flow is user-friendly, reliable and simple, he adds, and directly integrates with the enterprise's POS system.

"We love that we're leveraging what every customer has readily available in their hands—their cell phone—to elevate their overall First Watch experience. The technology allows us to serve more demand without giving up our commitment to hospitality."

Rob Conti
**SVP of Information Technology**
First Watch
Bradenton, FL

NATIONAL RESTAURANT ASSOCIATION

TOP OPPORTUNITIES FOR **TECH** INTEGRATION

Understanding consumer desires and expectations, operators have some interesting opportunities to entice customers through tech-enabled features, which can enhance service, customer experience and the bottom line.

Consumers show an interest in:

- **Ordering in advance at fullservice restaurants**
- **Variable pricing**
- **Reserving specific tables online**
- **Loyalty programs**

HAVE A SEAT, YOUR ORDER'S UP

Tableservice customers place their order in advance online, schedule a time to arrive at the restaurant, and get their food shortly after they're seated.

70% of consumers – including 88% of Gen Z adults and 84% of millennials – say they'd use this option.

SOUNDS LIKE A PLAN

% of consumers who would order ahead at tableservice restaurants

All Adults	70%
Gen Z Adults (18-27)	88%
Millennials (28-43)	84%
Gen Xers (44-59)	74%
Baby Boomers (60-78)	51%
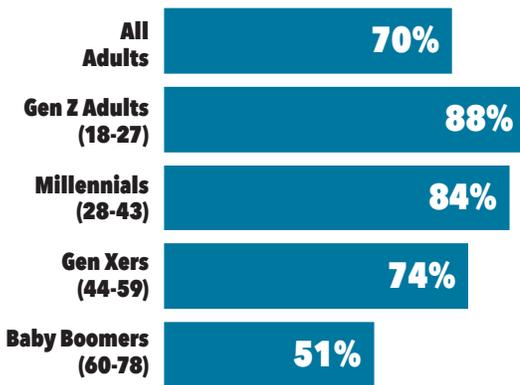
Source: National Restaurant Association

VARIABLE **PRICING**

Like the happy hour of the past, technology now allows the restaurant to change prices on days or periods of time that are very slow or very busy.

Operators communicate price changes to customers using a smartphone app and social media.

61% of adults are game for variable pricing. This sentiment is strongest among Gen Z adults (71%) and millennials (67%).

RESERVING A SPECIFIC TABLE ONLINE

30% of consumers would pay a fee – such as $10 – to reserve a specific table from a seating chart on a website. Interest in this option was higher among Gen Z adults (54%) and millennials (44%).

PAYING FOR THE PERFECT TABLE

% of consumers who would pay an extra fee to reserve a specific table

All Adults	30%
Gen Z Adults (18-27)	54%
Millennials (28-43)	44%
Gen Xers (44-59)	26%
Baby Boomers (60-78)	10%
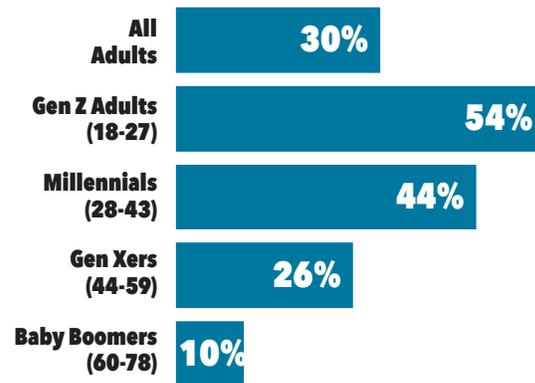
Source: National Restaurant Association

VARIABLE PRICING? YOUNGER CONSUMERS SAY YES

Consumers' reaction to variable pricing at restaurants

■ Very/Somewhat unfavorable
■ Very/Somewhat favorable

	All Adults	Gen Z Adults (18-27)	Millennials (28-43)	Gen Xers (44-59)	Baby Boomers (60-78)
Very/Somewhat unfavorable	39%	29%	33%	42%	46%
Very/Somewhat favorable	61%	71%	67%	58%	54%

Source: National Restaurant Association
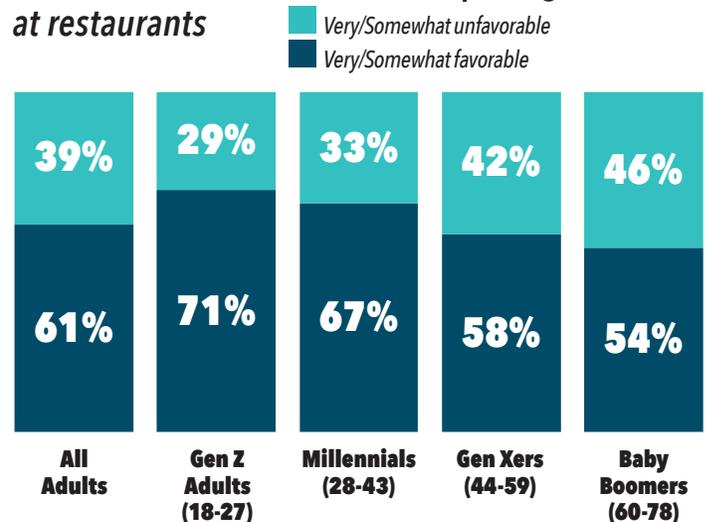
RESTAURANT
TECHNOLOGY
# LANDSCAPE

LOYALTY PROGRAMS

MORE TECH, PLEASE

How loyalty program members say they would prefer to participate in the program

■ *A smartphone app*
■ *A physical card they present when ordering*
■ *No preference, they'd use both options*

	All Adults	Gen Z Adults (18-27)	Millennials (28-43)	Gen Xers (44-59)	Baby Boomers (60-78)
Smartphone app	60%	70%	68%	68%	39%
Physical card	18%	21%	12%	13%	26%
No preference	22%	9%	20%	19%	35%
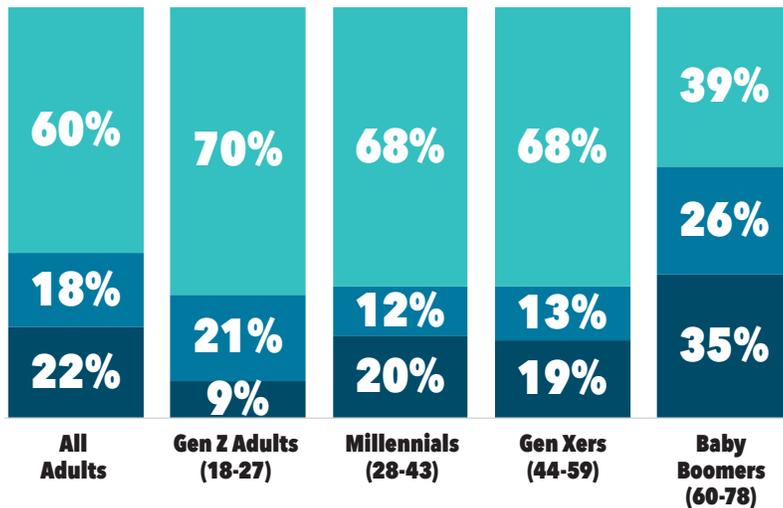
Source: National Restaurant Association
Base: Consumers who currently participate in a restaurant loyalty or reward program

For *prospective* loyalty customers, technology may be an issue–at least compared with current members.

If given the choice, 39% of *prospective* members say they'd prefer to have a physical card to present when ordering.

Only a third say they'd prefer to participate using a smartphone app. Among baby boomers, 51% say they'd prefer to have a physical card.

52% of adults say they currently participate in a loyalty or reward program at a restaurant, coffee shop, snack place or deli.

96% of these participants say being a member of a loyalty or reward program is a good way to get more bang for their buck.

60% of current loyalty program members prefer to access the program through a smartphone app vs. a physical card. 18% would prefer a card. 22% don't have a preference. Baby boomers are the most likely to say they'd use both options.

61% of limited-service operators plan to invest in loyalty/reward program technology in 2024.

PARTICIPATION PREFERENCES

How prospective loyalty program members say they'd prefer to participate

- ■ A smartphone app
- ■ A physical card they present when ordering
- ■ No preference, they'd use both options

	All Adults	Gen Z Adults (18-27)	Millennials (28-43)	Gen Xers (44-59)	Baby Boomers (60-78)
A smartphone app	33%	52%	49%	32%	18%
A physical card they present when ordering	39%	22%	22%	44%	51%
No preference, they'd use both options	28%	26%	29%	24%	31%
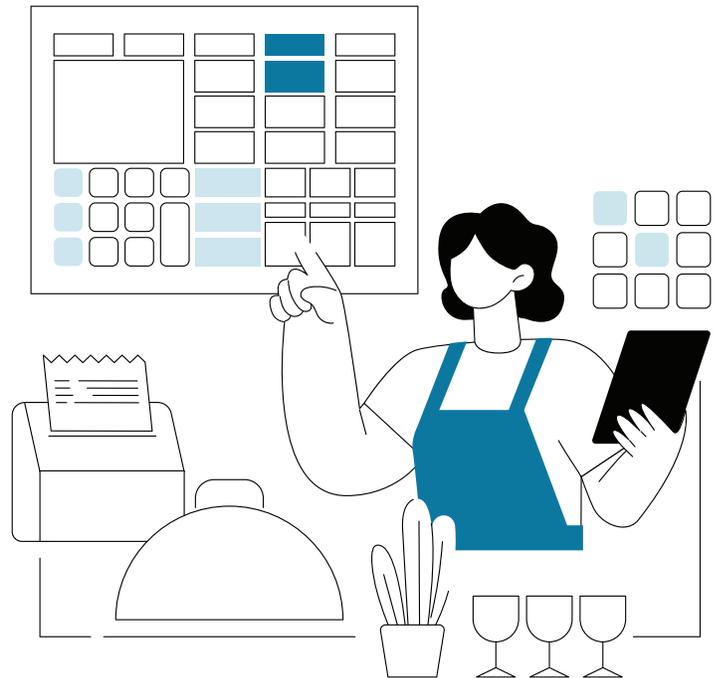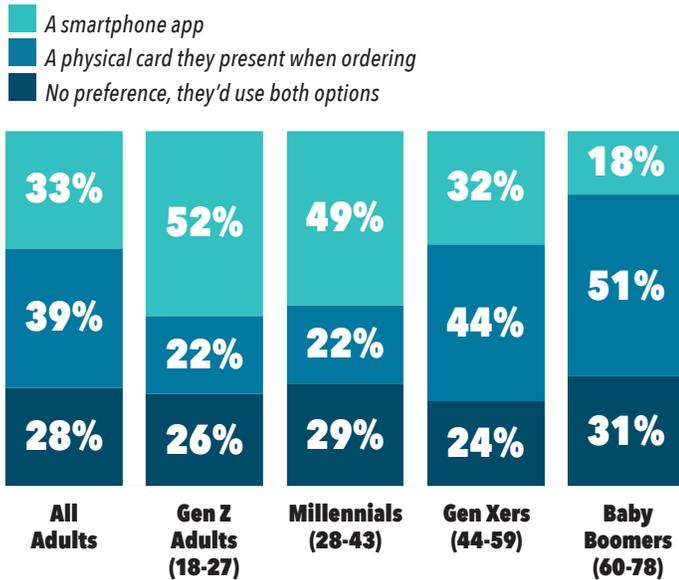
Source: National Restaurant Association
Base: Consumers who currently do not participate in a restaurant loyalty or reward program but would if one was offered by their favorite restaurant, coffee shop, snack place or deli

WHAT **OPERATORS ARE DOING**

Investments in technology are ramping up.

50% of operators say they devoted resources to make their service more productive in 2023; 48% invested to enhance the customer experience.

4 in 10 used technology to enhance productivity in the kitchen. Even more plan tech-related investments in these areas in 2024.

73% of operators report their restaurant is more efficient and productive than it was before the pandemic.

MORE TECH ON DECK FOR OPERATORS

Restaurant operators' investments in these technology-related areas

	Made investment in 2023	Plan to make investment in 2024
Make the service area more productive or efficient	51%	55%
Enhance the customer experience	48%	60%
Make the kitchen more productive or efficient	41%	52%
Strengthen cyber security	34%	45%

Source: National Restaurant Association

NATIONAL RESTAURANT ASSOCIATION

TECH INVESTMENTS
BY CATEGORY

With a list of 15 technology-related areas before them, restaurant operators identified those they expect to devote resources to in 2024.

MARKETING & SALES
- Beacon technology: Digital & location-based marketing
- Loyalty/reward systems
- Variable menu pricing

CUSTOMER EXPERIENCE
- Smartphone app development
- Contactless ordering/ payment
- Self-order/self-pay: tablets or kiosks

OPERATIONAL EFFICIENCY
- Point-of-Sale systems
- Labor management: automated recruitment/ scheduling systems
- Back office: payroll/ finance/tax compliance/ food safety compliance
- Inventory control/ management systems
- Cyber security

DEVELOPING TECH
- Artificial Intelligence (AI) integration (including voice recognition)
- Augmented reality (for training or marketing campaigns)
- Robotics
- Drones/autonomous vehicle delivery

Topping the list is tech designed to boost sales and customer traffic...

63% plan to devote resources to digital or location-based marketing in 2024.

52% of operators are planning to incorporate technology into back-office functions, such as payroll, finance, and tax and food safety compliance.

52% also say they plan to invest in inventory control/management systems in 2024. Just under half will devote resources to point-of-sale systems this year.

57% expect to invest in loyalty/reward systems.

Tech to enhance the customer experience is on operators' radars...

34% will invest to develop smartphone apps. Limited-service operators (40%) are more likely than fullservice (27%) to have plans.

1 in 4 operators plan to devote resources to self-ordering/payment systems (such as tablets or kiosks) in 2024.

Some tech items are more futuristic at this point, but it doesn't mean they're being ignored...

22% of operators plan to devote resources to augmented reality for training or marketing campaigns, 16% say they'll invest in artificial intelligence (AI) integration.

RESTAURANT OPERATORS ARE INVESTING IN TECHNOLOGY

% of operators planning to devote resources to the following technology-related areas in 2024

	All restaurants	Fullservice restaurants	Limited-service restaurants
Digital marketing/location-based marketing	63%	64%	62%
Loyalty/reward systems	57%	52%	61%
Back office: payroll/finance/tax compliance/food safety compliance	52%	52%	51%
Inventory control/management systems	52%	53%	50%
Point-of-Sale systems	48%	43%	53%
Contactless ordering/payment	41%	41%	42%
Labor management: automated recruitment/scheduling systems	37%	36%	37%
Cyber security	37%	43%	31%
Smartphone app development	34%	27%	40%
Flexible/dynamic menu pricing	30%	31%	29%
Self-order/self-pay: tablets or kiosks	25%	20%	30%
Augmented reality (for training or marketing campaigns)	22%	18%	26%
Artificial Intelligence (AI) integration (including voice recognition)	16%	15%	17%
Robotics	5%	7%	3%
Drones/autonomous vehicle delivery	3%	3%	3%

Source: National Restaurant Association

TECH SOLUTIONS TO **LABOR CHALLENGES**

Technology can help an operator find efficiencies to free up staff, but it can't solve every need.

47% of operators say that in 2024, the use of technology and automation (to help with a current labor shortage) will become more common within their segment (44% fullservice, 49% limited-service).

69% of operators say that technology integration in restaurants will augment rather than replace human labor (by segment, it's 68% fullservice, 69% limited-service).

Technology may well create new work opportunities in the restaurant industry. Today's apps can enable operators to address short-term staffing needs by providing opportunities for people to pick up temporary work as their schedules permit.

When full-time or part-time employees are not available, restaurant operators may turn to just-in-time employees.

25% of operators say using these kinds of temporary workers to increase staffing levels will become more common within their segment in 2024. Limited-service operators (29%) are somewhat more likely than their fullservice counterparts (21%) to view this as a viable option.

37% of operators plan to invest in automated labor management recruitment/scheduling systems in 2024.

NATIONAL RESTAURANT ASSOCIATION

OPERATOR PERSPECTIVE

Chef Erica Barrett, serial entrepreneur and founder of SoCu Kitchen gourmet food retail line, SoCu Southern Kitchen & Oyster Bar, and Dough Boy Pizza Co. is a tech-phile of the first order.

"In 2022, I had the opportunity create a pizza concept for the Pizitz Food Hall in Birmingham, Ala., where I operated SoCu Southern Kitchen & Oyster Bar," says Barrett. "I booked a ticket to the National Restaurant Association Show in Chicago, and in a matter of days walking the show, I had sourced my ingredients and equipment, my POS system, self-order/pay kiosks, digital menu boards–almost everything I needed to open, which we did, three months later."

The self-order kiosk helps with labor cost and order accuracy. "Fewer than 1% of our orders come back and our labor costs for this food hall concept run about 11%-15% because we don't need cashiers." Instead, team members are busy making the pizzas in full view of the customers. They assemble the pies and bake them in super-efficient, ventless pizza ovens provided by the Italian company from whom she imports her pizza crusts.

The POS system also handles online orders from any of the third-party delivery platforms. "We process orders from Uber Eats, Door Dash, and Grubhub all through one system, seamlessly. It's great," she says.

With Dough Boy Pizza's concept, we're looking to control labor and food costs with our technology focus.

Digital menu boards (which integrate with the POS) were another find on her 2022 sourcing mission. "We can change our menus in real time, promote specials, update pricing, upsell and more. In developing Dough Boys Pizza Co., I really set out to create a concept of the future." The brand now has 3 units open, 8 under construction, and 18 franchise deals underway. "I'm definitely heading back to the Show to find more new tech; it's a game changer for me."

Erica Barrett

Founder of SoCu Kitchen, SoCu Southern Kitchen & Oyster Bar, and Dough Boy Pizza Co.
Birmingham, AL