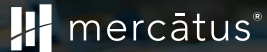**MARKET LEADER REPORT**

October 2023

2023 Supermarket Technology Review

Operator Insights to Guide Strategic Investments

Presented in partnership with:

mercātus®

Check Out What's Next for Supermarket Technology

For an industry that's often perceived as old-school, supermarkets are rapidly embracing the future in ways that customers might overlook as they go about their habitual shopping experience.

In its inaugural Technology Review, Supermarket News Intelligence sought to measure how retail technology, e-commerce, and artificial intelligence have already gained a foothold in the grocery business. The research and insights division of Supermarket News also set out to ask retailers directly about their plans to invest in new solutions, the business objectives they most need to address, and their interest in experimenting with new platforms that undoubtedly will continue to evolve over the next 12 months.

Grocers have broadly reached a consensus that technology will play a major role in addressing immediate challenges and preparing the supermarket industry for the future. They are ready to invest, but they still intend to act cautiously to protect profitability, grow their IT infrastructure in a way that scales with their business, and strengthens their relationships with customers.

There may be gaps between chain retailers and independents in terms of how fast a store can invest and in what trade-offs that may require, but operators of all type are enthusiastic about getting more data and more ideas about how to put that information to use.
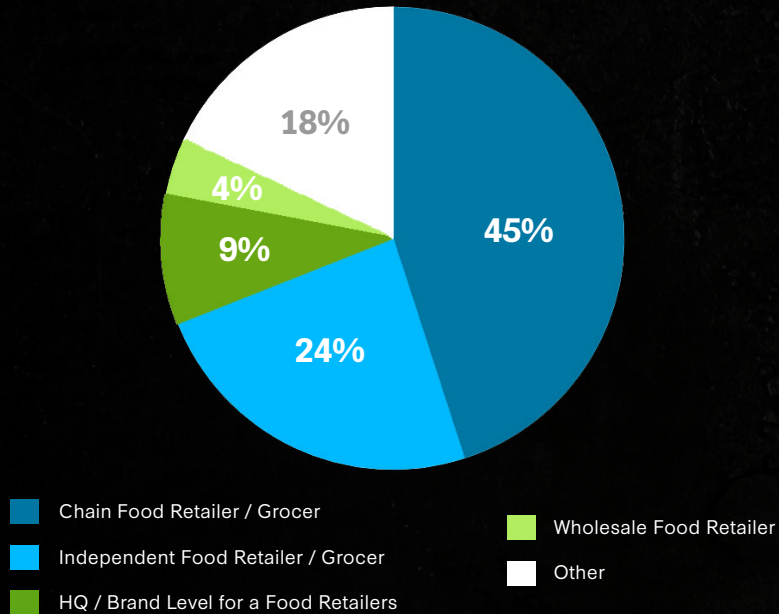
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Who We Surveyed

Supermarket News Intelligence surveyed more than 130 grocery industry professionals, including 109 retailers, online over a three-week period in late July and early August 2023. The custom survey was promoted to Supermarket News' audience via email, editorial products, and social media. Respondents provided select demographic information about their businesses, but individual results were anonymized.

Respondents all identified as supermarket retailers. (Results from those who identified as non-operators were excluded from the sample.)

Retailer Respondent Profile

Business Description

- Chain Food Retailer / Grocer: 45%
- Independent Food Retailer / Grocer: 24%
- HQ / Brand Level for a Food Retailers: 9%
- Wholesale Food Retailer: 4%
- Other: 18%

Number of Stores Systemwide

2-10	11-49	50-99	100-249	250-499	500 or more
6%	7%	7%	22%	11%	47%

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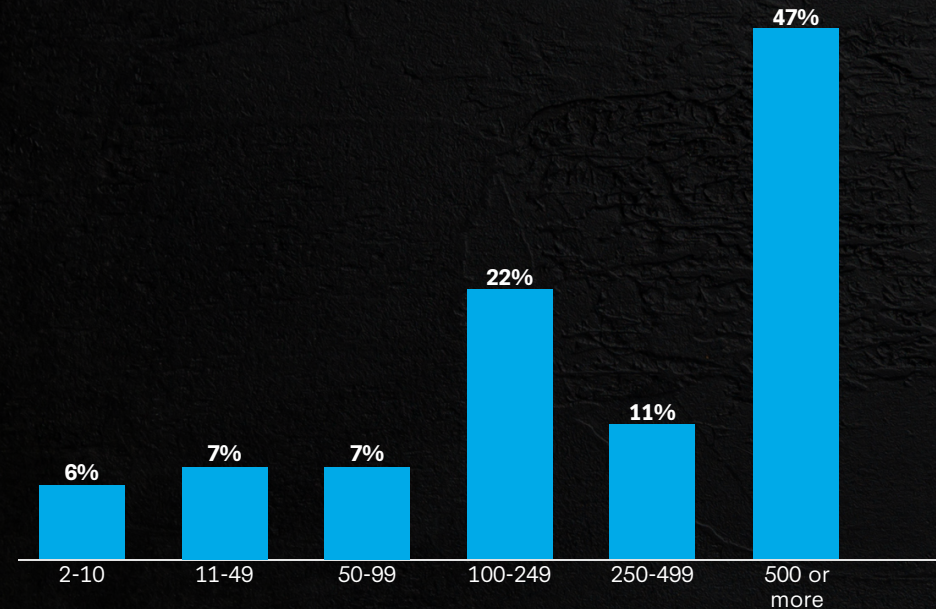
Key Findings

1 Virtually all retailers are in the market

100% of respondents indicated that technology would be at least "somewhat important" to achieving a diverse set of business goals, including cost controls, new revenue channels, and modernizing their stores to compete in an increasingly omnichannel industry. Most retailers are only somewhat satisfied with their current suite of technology, which is why nearly all survey respondents expressed some level of intent to invest over the next 12 months.

2 But they're very discerning

Half the grocers in this study plan to increase the number of technology partners they work with, but the rest have their reasons for staying put with their current vendors or looking to consolidate. They are likely to talk to their peers about potential solutions more than they sit for product demonstrations, so technology providers still need to prepare for a long and complex sale process before potential clients are ready to buy.

3 Efficiency is the top priority for most

Though retailers don't doubt the long-term potential for technology to modernize an old-school grocery industry, they're less concerned with change management currently and are seeking solutions to make the shopping experience and their operations more efficient. Tools that can automate parts of the job, especially in the back office, as a way to cut costs and boost profitability will be prioritized.

4 Concerns over cost and scale reveal segment differences

The biggest barriers to technology investment include limited budgets and staff for implementation, as well as worries about integration and the ability to scale with a growing business. Perhaps unsurprisingly, chain supermarkets have bigger concerns about the way new solutions will fit into already sizeable tech stacks. Independents are much more cost-conscious and will be seeking more immediate returns on investment.

5 Knowing the customer is crucial

Solutions that deepen a store's relationship to its customers and customize direct-marketing offers appeal to retailers who want to increase sales per transaction — meaning independent grocers in particular. The importance of growing online sales can't be understated, but most retailers still get most of their sales from inside their four walls, and those operators will want data that helps them bring in customers consistently.

Key Findings

6 Online and omnichannel need to start proving their profitability

For all the excitement e-commerce and data-driven marketing generate about the grocery industry's future, retailers currently do not perceive them to be as profitable as the in-store experience. That perception may create an even heavier lift for single-store retailers who want to modernize their offerings but need to clearly see how investments will drive the top line or flow through to their bottom lines.

7 Retailers are relatively confident they can optimize customer data

Most respondents felt they were at least somewhat competent in leveraging the customer data they collect. But this enthusiasm skewed higher for chain operators, who were generally more able to afford different solutions. Widely adopted tools and platforms, such as POS systems and loyalty programs, are reliable sources of data. Technology can appeal instantly to retailers by quickly analyzing data and operationalizing it in marketing.

8 Quick wins can be found in software for in-store challenges

Chain retailers are driving adoption for most new technologies, but independents are quickly catching up, especially in the use of apps for managing labor, tracking inventory, and preventing shrink or data breaches. Customer-facing digital displays generate enough interest to believe that they have room for growth, but retailers appear to see a business case for efficiency software more readily.

9 Digital marketing is maturing as independents catch up to chains

Single-store operators are also racing to adopt e-commerce tools that chains have pioneered, such as first-party online ordering for pickup and delivery, and especially digital-marketing platforms that send customized offers directly to consumers. Interest in third-party services may have peaked, as more retailers implement channels they control and explore brand new offerings like retail video networks.

10 A.I. is hardly science fiction to supermarkets

Majorities of respondents indicated they're already using artificial intelligence in their stores and in their e-commerce strategies — and not in ways that consumers typically associate with A.I., like chatbots. In apparent recognition that A.I. powers the software they use every day, retailers continue to adopt and look for advancements in sales and labor forecasting, as well as automations for marketing and inventory management.

Grocers Are in the Market for Technology

Primary business goals in the coming year differ from one retailer to the next, yet leaders in the grocery industry broadly agree that they will need upgraded or brand-new technology to achieve their objectives. All respondents indicated that technology would be at least "somewhat important" to their ability to meet their goals this year, and they were as likely to rate digital solutions as "very important" (47% of all respondents) or "critically important" (44% of all respondents).

Half of chain retailers said technology would be critical to their plans this year, compared with nearly one-third of independent retailers.

How important will technology be to your ability to meet your key business objectives?

44%
47%
9%

Critically important
Very important
Somewhat important

100%
of retailers agree that technology will matter to their top business objectives
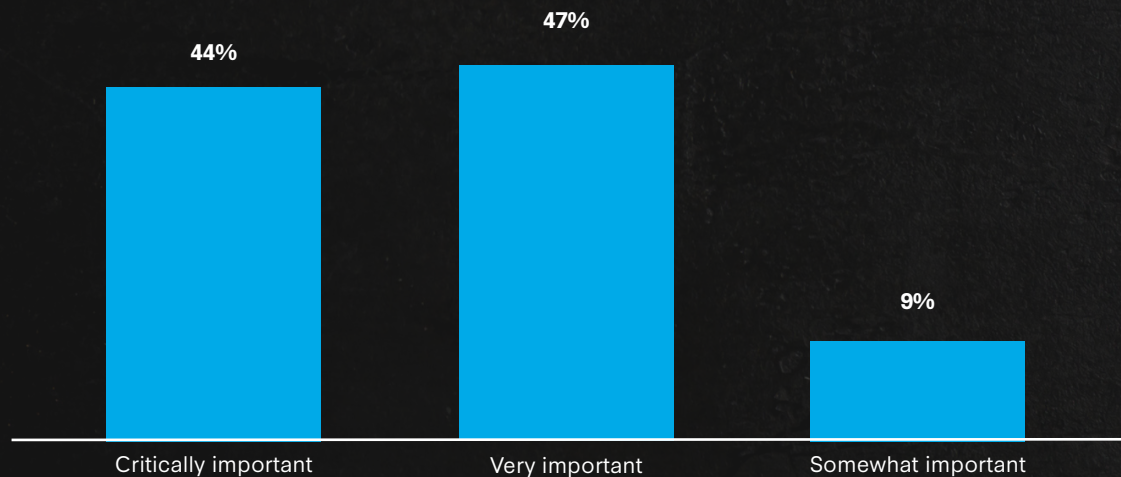
Most people said they would be starting from a base tech stack that currently gets the job done. Slightly more than half of retailers (54%) described themselves as "somewhat satisfied" with their current technology suite. Among the 29% of respondents identifying as "very satisfied" and the 3% of people calling themselves "completely satisfied" with their tech stacks, no significant differences between chain and independent retailers appeared.

The recognition of technology's importance and potential will likely drive spending over the next 12 months. Only 6% of respondents said they would "probably not" invest in new technology over that time frame. More than two in five operators (44%) said they "definitely" would make those investments, followed by 31% who "probably" would and 19% who "possibly" would. Again, chain retailers show greater willingness to invest — or perhaps a greater ability to afford technology spending — with 52% of them making definite plans to buy new technology, compared with 30% of independents.

Retailers Will Make Tech Vendors Work

However, technology vendors should not just assume supermarkets will be beating down their doors to become new customers.

Only a slim majority of respondents (52%) plan to increase the number of tech providers they work with in the coming year, and whether the rest anticipate staying put with their vendors or consolidating their tech stacks with fewer partners often depends on their status as an independent or a chain retailer. One in four operators plan to keep the same number of tech providers in the next 12 months, including 35% of independents. Another 23% of respondents said they would try to work with fewer vendors, and chain retailers indexed higher on that sentiment than independents.

How do you expect the size of your tech stack and your total number of technology partners to change in the coming year?

Category	Percentage
We plan to add new tech providers	52%
We plan to consolidate service and/or eliminate tech providers	23%
We do not plan to alter the number of providers or the size of our tech stack	25%
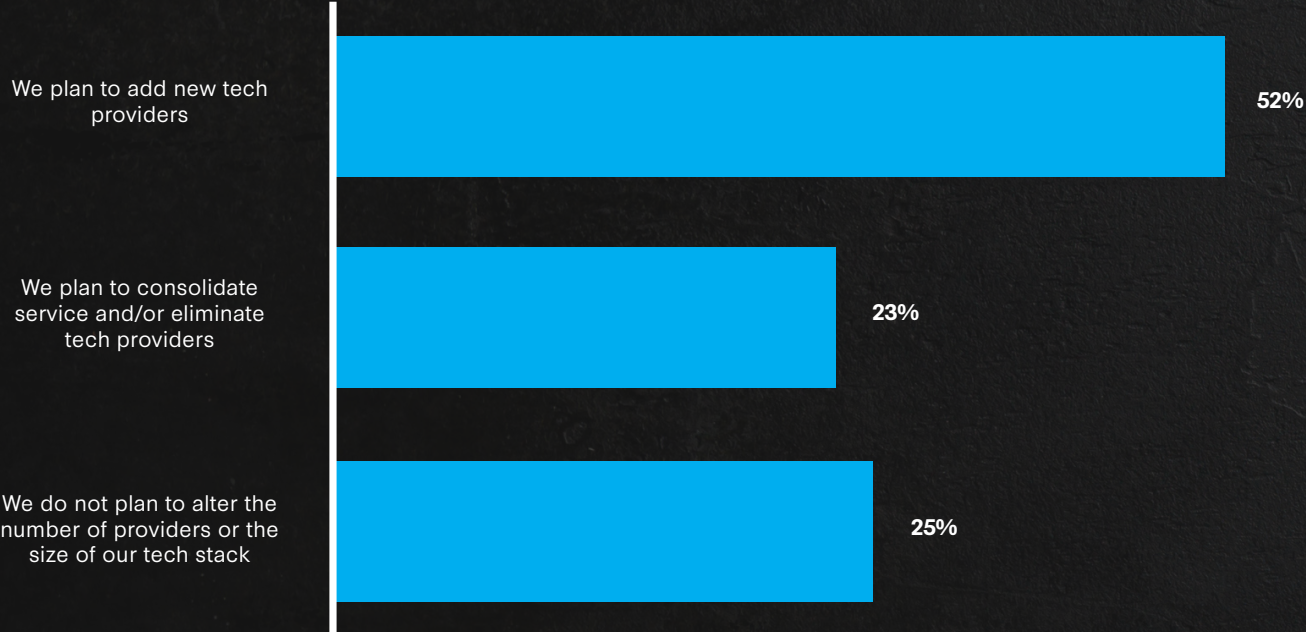
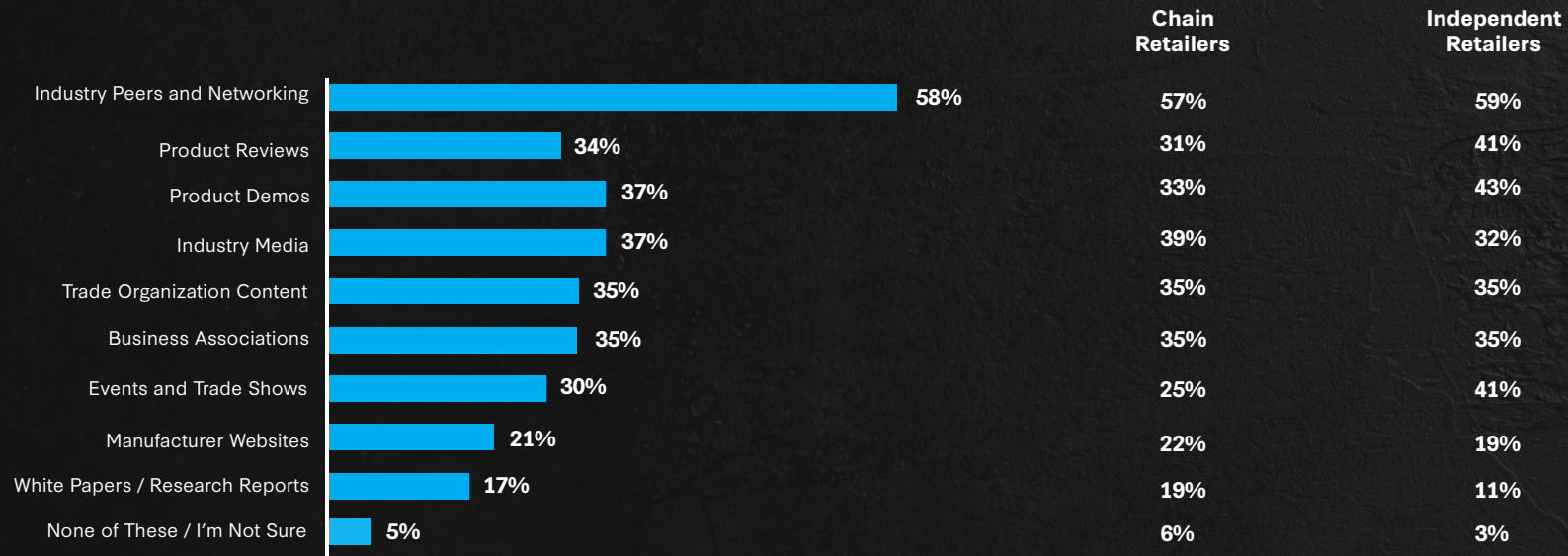Respondents also indicated that, while they are open to product demonstrations to learn more about potential solutions, their biggest source of information on new technology is other grocery operators. Nearly three in five retailers (58%) said they network with their peers when they're seeking expertise on available tech solutions, and that sentiment was consistent across chain and independent respondents.

But it's not all bad news for the sales and client success teams at tech providers. They may find a receptive audience among independent retailers, with the caveat that this group of operators tends to be more cost-conscious, so the sale process may be longer and more complex.

More than two in five independent respondents (43%) said they rely on product demonstrations to get information they need for tech purchasing decisions, which is greater than the 33% of chain retailers who indicated the same thing. Independent operators significantly outpace chain peers when it comes to seeking information at trade shows and industry events, 41% to 25%, meaning that traditional prospecting methods could bear fruit among the many retailers that don't yet have the scale for enterprise-level solutions.

What resources do you rely on when looking for information about technology for the grocery sector?

		Chain Retailers	Independent Retailers
Industry Peers and Networking	58%	57%	59%
Product Reviews	34%	31%	41%
Product Demos	37%	33%	43%
Industry Media	37%	39%	32%
Trade Organization Content	35%	35%	35%
Business Associations	35%	35%	35%
Events and Trade Shows	30%	25%	41%
Manufacturer Websites	21%	22%	19%
White Papers / Research Reports	17%	19%	11%
None of These / I'm Not Sure	5%	6%	3%

Efficiency Takes Top Priority

As this report shows repeatedly, retailers tend to differ along chain-versus-independent lines with their business goals and their interest in specific kinds of technology, but they do align on their overall top priorities for new systems and solutions they need to buy.
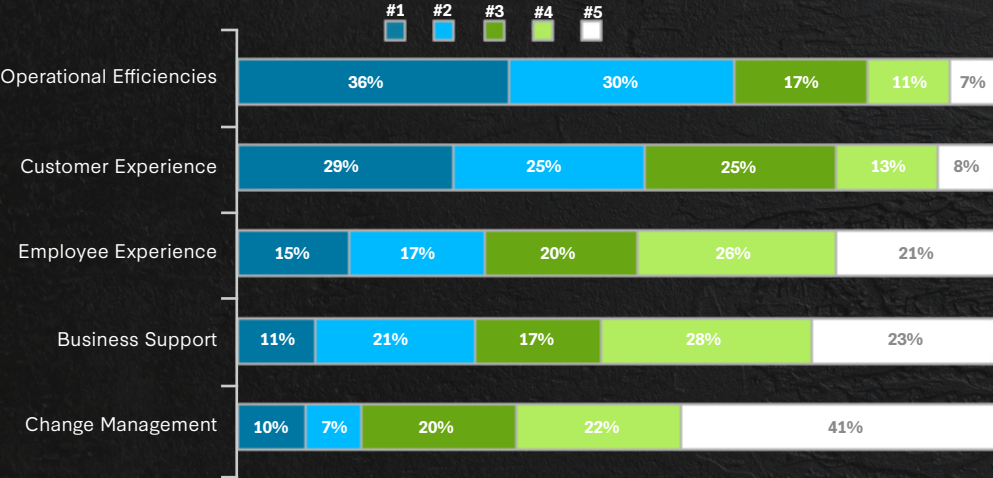
When asked to rank a handful of potential priorities No. 1 through No. 5, retailers were most likely to name operational efficiency their top choice. It had a mean rank of 2.2 among all retailers, placing it ahead of customer experience, employee experience, business support, and change management. Operational efficiency encompassed several parts of the profitability equation for respondents, including ways to reduce costs and automate manual processes.

Retailers also gave top-line considerations their due, giving the customer experience priority a mean rank of 2.5. This category was explained to respondents as the one where technology's ability to grow revenue would be reflected, encompassing initiatives like loyalty programs, digital marketing for direct offers (ideally personalized ones built around customer data), and digital ordering.

Change management shaking out as only the No. 5 priority, for both chain and independent retailers, may indicate that the grocery industry, apart from the largest brands, is still in the early stages of scaling up true omnichannel capabilities.

As retailers' self-reported levels of adoption will show later in the report, the industry is more likely to already have implemented software that boosts productivity and efficiency around things like training employees, managing inventory and labor hours, and digitizing marketing. Very few respondents who have yet to implement these tools say they're unlikely to adopt them eventually.

What are your operation's top three considerations when vetting or investing in new technologies?

Legend: #1 #2 #3 #4 #5

Category	#1	#2	#3	#4	#5
Operational Efficiencies	36%	30%	17%	11%	7%
Customer Experience	29%	25%	25%	13%	8%
Employee Experience	15%	17%	20%	26%	21%
Business Support	11%	21%	17%	28%	23%
Change Management	10%	7%	20%	22%	41%

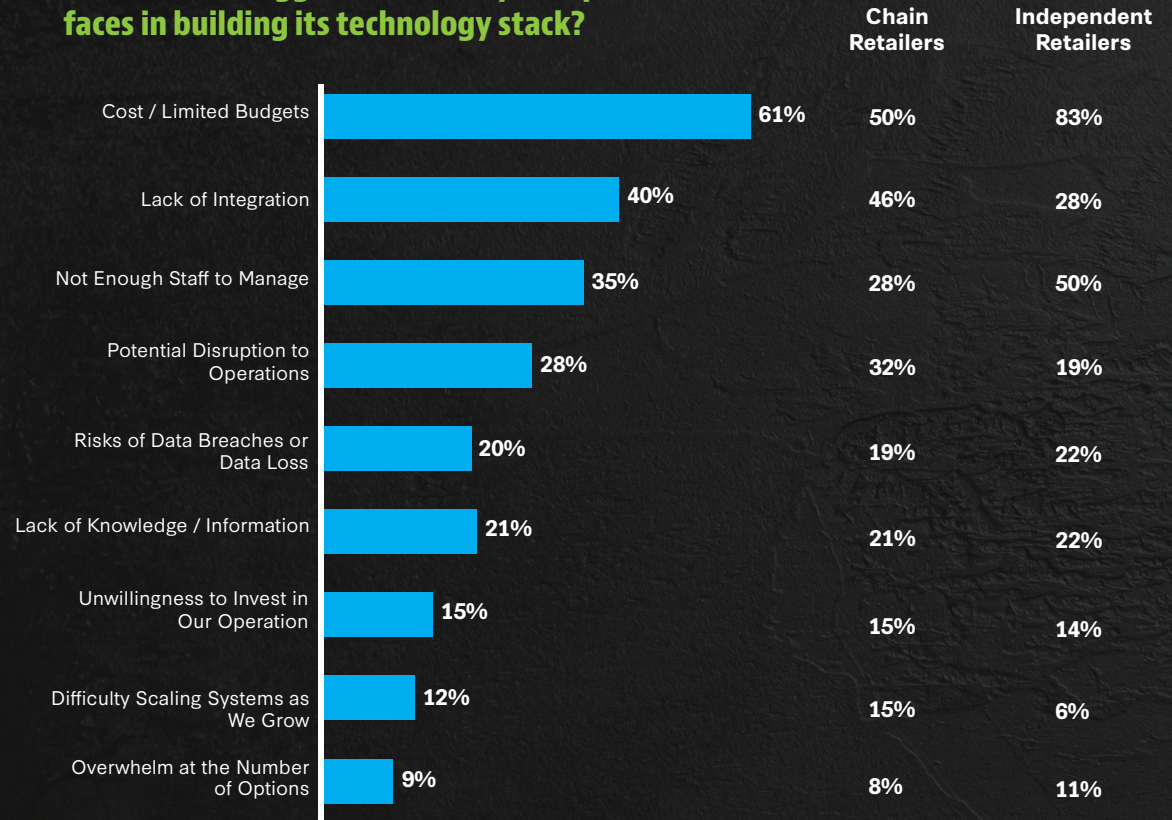# Cost and Integration Concerns Hold Some Retailers Back from Investing

Unsurprisingly, respondents cited cost as the top hurdle to investing in more technology, with slightly more than three in five retailers (61%) indicating they have budget constraints. In a report full of significant differences between chain and independent operators, this contrast was one of the most meaningful. Even while half of chain respondents said cost could be a limiting factor, it was a concern for 83% of independent retailers.

Single-store operators also were far more likely to point out a lack of personnel needed to implement and manage new technologies than their chain peers were. Half of independents said lack of staff was an obstacle, nearly double the percentage of chain respondents who said so (28%).

On the other hand, chain operators appeared more concerned with scalability as a potential stumbling point along the path to modernizing their tech stacks. "Lack of integration" was a concern for two in five respondents overall, but chain leaders were significantly more likely to say so, at 46% compared with just 28% of independent operators. Respondents from chain brands were also more likely to cite concerns over potential disruption to operations if they were to implement new systems, as well as potential difficulties scaling new systems as they grow.

Only about one in 10 respondents reported feeling overwhelmed at the number of options available for their limited technology budgets. That may help vendors get a meeting with potential buyers, but the challenge of overcoming questions around cost and scalability would likely remain.

What are the biggest obstacles your operation faces in building its technology stack?

Obstacle	Overall	Chain Retailers	Independent Retailers
Cost / Limited Budgets	61%	50%	83%
Lack of Integration	40%	46%	28%
Not Enough Staff to Manage	35%	28%	50%
Potential Disruption to Operations	28%	32%	19%
Risks of Data Breaches or Data Loss	20%	19%	22%
Lack of Knowledge / Information	21%	21%	22%
Unwillingness to Invest in Our Operation	15%	15%	14%
Difficulty Scaling Systems as We Grow	12%	15%	6%
Overwhelm at the Number of Options	9%	8%	11%

Retailers' responses from a separate question reinforce the primacy of cost as the biggest barrier to implementing new technology. Asked to name their top three considerations when evaluating potential solutions, 59% of all people chose cost, including 68% of independent respondents. Functionality, described to the respondents to also mean the user experience for employees, ranked closely behind at 55%. The next two responses, cited by nearly half of operators, were integration and the user experience for customers.

What are your operation's top three considerations when vetting or investing in new technologies?

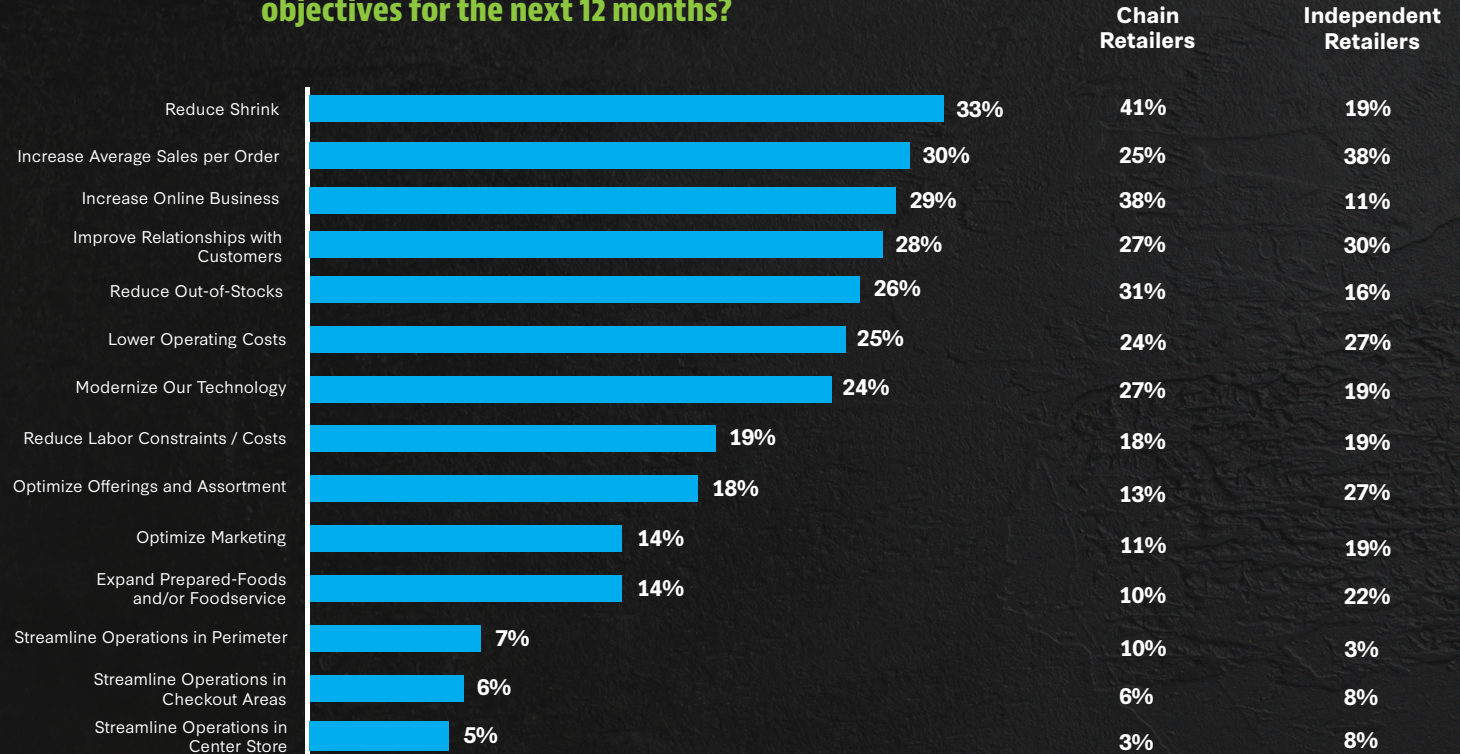|		Chain Retailers	Independent Retailers
Cost	59%	54%	68%
Functionally	55%	58%	49%
Integrating with tech stack	49%	47%	51%
Customer experience	46%	47%	43%
Customer service	31%	31%	32%
Data Security	26%	29%	19%
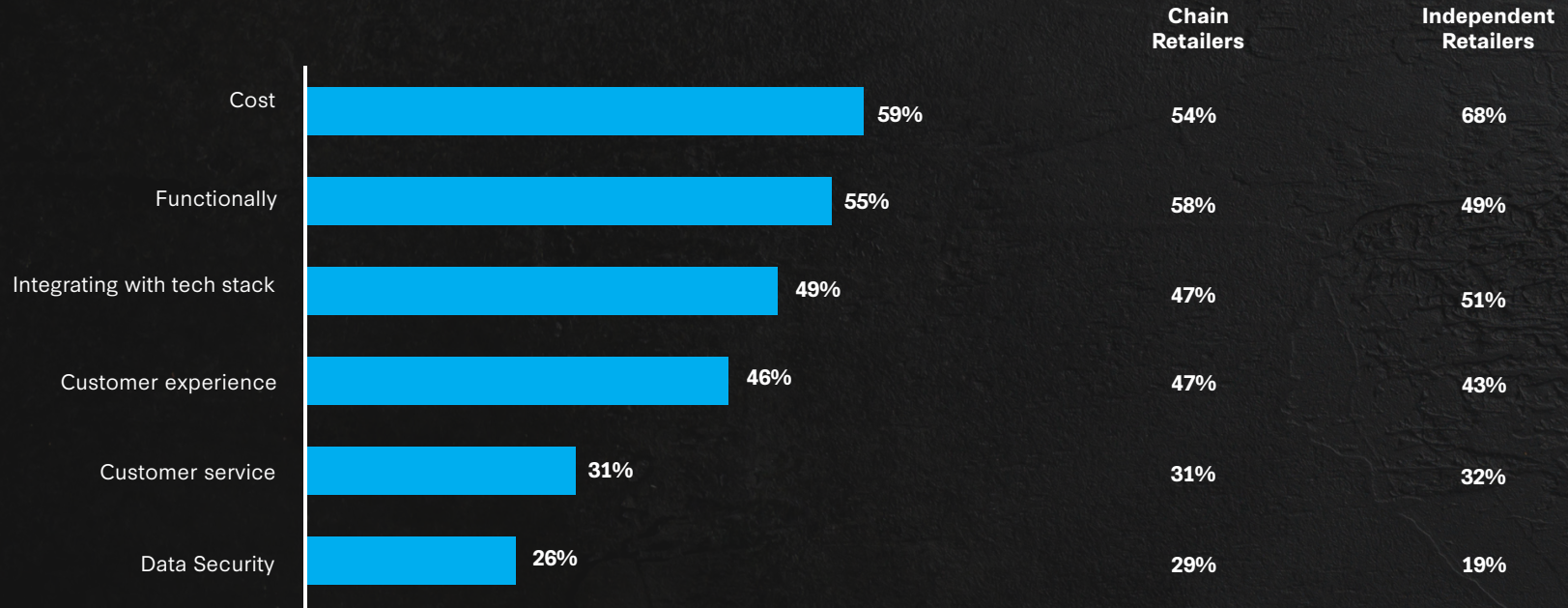
Independents Need Internal Growth Drivers

Comparing responses between independent and chain grocers throughout this study reveals the divide to which chains can focus on online sales more than independents can, leaving the latter group to prioritize ways new technology might help them improve their in-store shopping experience and grow more revenue from within their four walls.

Asked to name their top three business objectives for the coming year, 38% of independent respondents said, "increasing average sales per order," compared with 30% of all respondents and 25% of chain operators.

Independents also identified "deepening customer relationships" (30%) and "optimizing product assortment" (27%) as their next biggest priorities, in keeping with an overarching goal to grow the average sales per customer transaction. Improving assortment produced the most significant difference with chain respondents, of whom only 13% named that a top objective.

What are your operation's top objectives for the next 12 months?

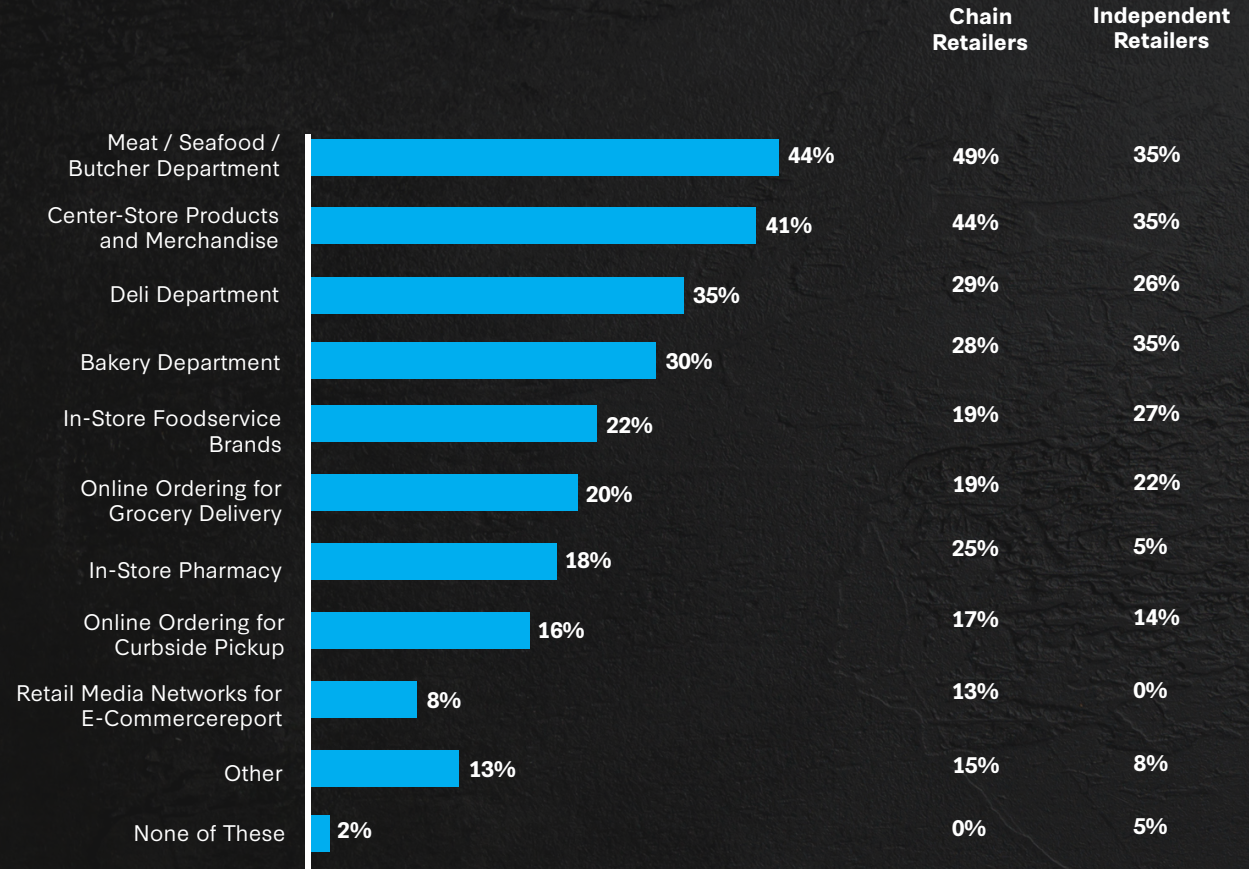|	(chart)	Chain Retailers	Independent Retailers
Reduce Shrink	33%	41%	19%
Increase Average Sales per Order	30%	25%	38%
Increase Online Business	29%	38%	11%
Improve Relationships with Customers	28%	27%	30%
Reduce Out-of-Stocks	26%	31%	16%
Lower Operating Costs	25%	24%	27%
Modernize Our Technology	24%	27%	19%
Reduce Labor Constraints / Costs	19%	18%	19%
Optimize Offerings and Assortment	18%	13%	27%
Optimize Marketing	14%	11%	19%
Expand Prepared-Foods and/or Foodservice	14%	10%	22%
Streamline Operations in Perimeter	7%	10%	3%
Streamline Operations in Checkout Areas	6%	6%	8%
Streamline Operations in Center Store	5%	3%	8%

Single-store operators were not too far ahead of chain peers in wanting to deepen customer relationships (30% for independents, versus 27% for chains), but they did appear to put greater priority than chain respondents did on "optimizing marketing" (19%, versus 11% for chains). Given that optimized marketing was described to respondents as including personalized direct offers and coupons, it appeared counterintuitive at first that chains would trail independents on their intent to improve this metric.

Then again, as the report will show later, chains are far ahead of independent supermarkets on the adoption of workhorse marketing technologies like loyalty programs, as well as email and mobile marketing platforms.

The final business objective worth noting for its significance to independent grocers is increasing sales of prepared foods and branded foodservice locations in perimeter departments. Just 14% of respondents overall identified this as a top goal, but 22% of independents said so (versus just 10% of chain respondents).

Questions around supermarket technology likely deal more often with the interplay between the in-store experience and the off-premise experiences of online ordering and grocery delivery, so why bring up balancing sales growth of center store and perimeter departments? Because operators currently view those in-store departments, whether center store or perimeter, as more profitable than online orders for either curbside pickup or grocery delivery. E-commerce from retail content networks falls even further behind in terms of perceived profitability.

Which departments are the most profitable to the retailer?

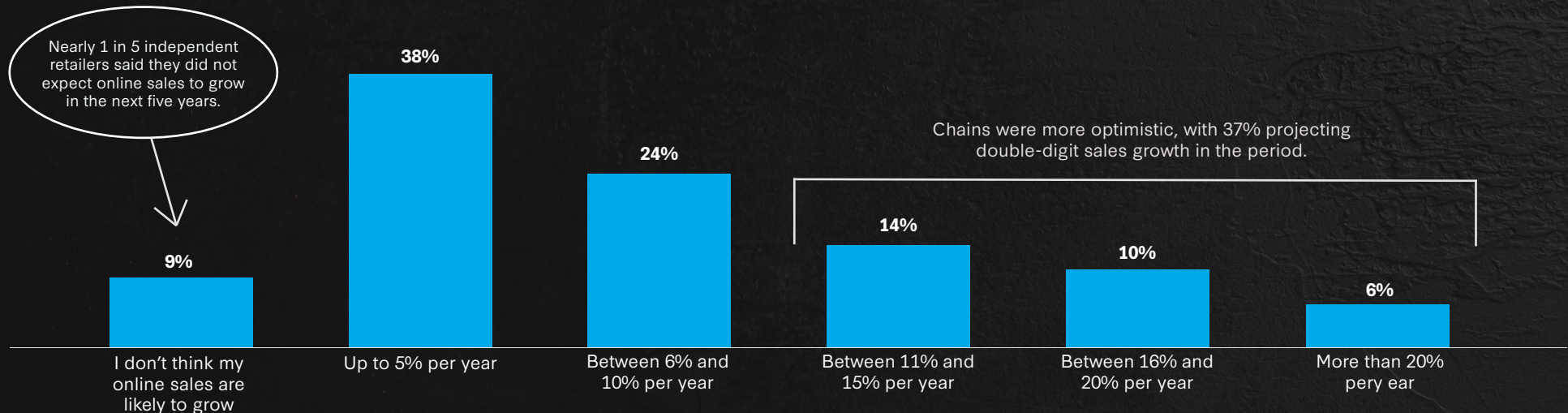| Department	Overall	Chain Retailers	Independent Retailers
Meat / Seafood / Butcher Department	44%	49%	35%
Center-Store Products and Merchandise	41%	44%	35%
Deli Department	35%	29%	26%
Bakery Department	30%	28%	35%
In-Store Foodservice Brands	22%	19%	27%
Online Ordering for Grocery Delivery	20%	19%	22%
In-Store Pharmacy	18%	25%	5%
Online Ordering for Curbside Pickup	16%	17%	14%
Retail Media Networks for E-Commercereport	8%	13%	0%
Other	13%	15%	8%
None of These	2%	0%	5%

Chain Supermarkets are Extremely Online

One of the most significant differences in this report that tilts in favor of chain supermarkets is the brands' collective goal to grow online sales, cited by 38% of chain respondents, versus only 11% for independent retailers.

Unsurprisingly, chains expect greater results from their online sales than their single-store competitors. Only 4% of chain respondents forecasted zero growth in online sales over the next five years, compared with 19% of independent respondents who gave that pessimistic an outlook. Overall, chains collectively predict a compound annual growth rate of 9% for their online sales between now and 2028. Meanwhile, independents are forecasting only a 5% CAGR for their online sales over that time.

How would you project your online grocery sales to grow between now and the year 2028?

Nearly 1 in 5 independent retailers said they did not expect online sales to grow in the next five years.

Chains were more optimistic, with 37% projecting double-digit sales growth in the period.

I don't think my online sales are likely to grow	Up to 5% per year	Between 6% and 10% per year	Between 11% and 15% per year	Between 16% and 20% per year	More than 20% pery ear
9%	38%	24%	14%	10%	6%

Chains have reached maturity, especially compared with the adoption rates of their independent competitors, across several digital marketing tactics like direct offers, loyalty programs, and first-party online ordering for grocery pickup or delivery.

Third-party online ordering is a different story: While 74% of chain retailers use third parties to fill delivery orders, far outpacing the 43% of independent respondents who also partner with these firms, they appear unlikely to increase their use of this method. Only 8% of chain operators are interested in adding third-party delivery solutions, compared with 18% of chain respondents who are not interested.

What's more, net interest in adding third-party delivery is barely positive for independents. Three in 10 single-store operators are interested in adding the solution, but 27% are uninterested.
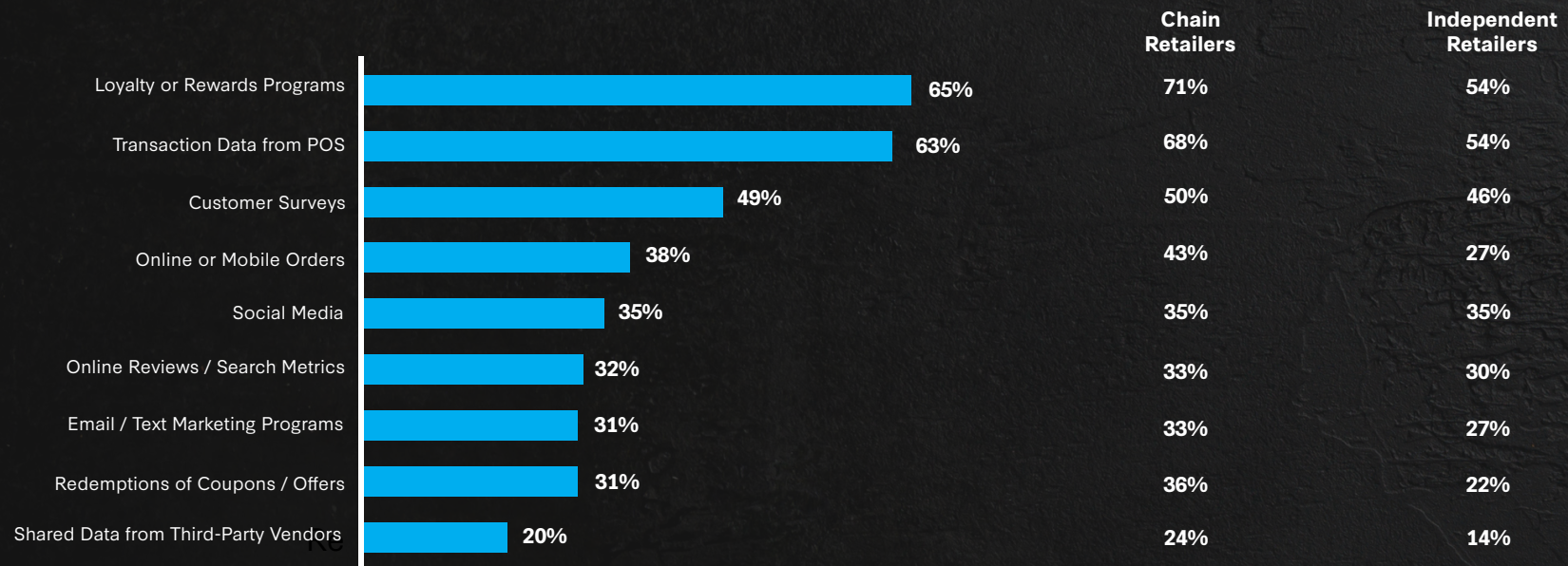
Does Data Drive Decisions? It Depends.

Thus far, grocery operators have indicated in their survey responses that investments in technology would help them most if they can help cut costs, increase sales for each in-store transaction, or expand into online ordering and e-commerce — preferably first-party channels rather than third-party platforms that come with onerous costs.

What fuels all these initiatives? Customer data, and lots of it.

What are your primary sources for collecting data on your customers and their purchases?

		Chain Retailers	Independent Retailers
Loyalty or Rewards Programs	65%	71%	54%
Transaction Data from POS	63%	68%	54%
Customer Surveys	49%	50%	46%
Online or Mobile Orders	38%	43%	27%
Social Media	35%	35%	35%
Online Reviews / Search Metrics	32%	33%	30%
Email / Text Marketing Programs	31%	33%	27%
Redemptions of Coupons / Offers	31%	36%	22%
Shared Data from Third-Party Vendors	20%	24%	14%

Approximately two-thirds of operators indicated that they get crucial customer data from transaction records they can access from point of sale systems and loyalty programs. Similar information about actual spending patterns are also available from online and mobile orders and from redemptions of direct offers and coupons. However, only 38% of respondents currently leverage online and mobile orders for customer data, and only 31% use direct-offer redemptions as an input for their data strategies.

There is still room for growth to adopt all these transaction-based data sources, especially for independent operators. Chain respondents are significantly ahead of single-store competitors in their use of customer spending data. Independents do a better job of reaching parity with chains when it comes to using "voice of the customer" research, such as customer surveys, social-media listening, online reviews, and email or text marketing programs.

Only one in five operators overall said they source actionable customer data from third-party e-commerce partners.

Compiling data is one part of the strategy, yet the greater challenge is putting that data to use. Grocers are relatively confident that they are optimizing the customer data they collect, though unsurprisingly chain respondents were more likely than independent operators to project the highest levels of certainty, given their head start in pulling data from loyalty programs, online orders, and the like.

In all, approximately three in four supermarket operators indicated that they were at least "possibly" optimizing their customer data.

Do you feel that you are optimizing the customer data you have?

Definitely	Probably	Possibly	Probably not	Definitely not
20%	29%	27%	20%	4%
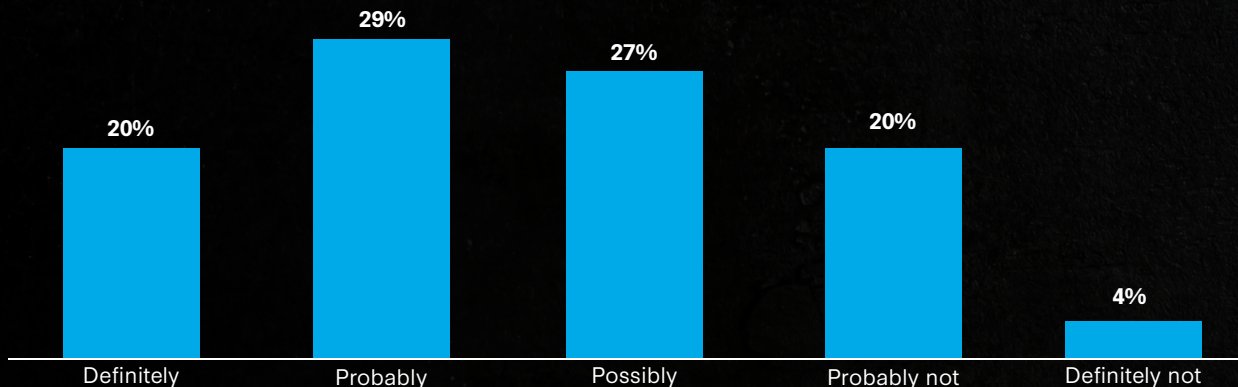
76%
of operators are at least somewhat confident they optimize their customer data

In-Store Technologies Represent the Low-Hanging Fruit

Considering which hardware platforms and software programs are already in place at many supermarkets, where can operators look for quick wins and meaningful investments in technology with a proven return on investment? Among all respondents, software for in-store operations has the highest levels of adoption, including programs for workforce management (72% of grocers already use this) and inventory management (69% of grocers already use this). The only category of hardware with this level of implementation is the self-checkout kiosk, which 65% of operators use. A majority also have implemented software for data security and shrink reduction.

Digital merchandising tools have room for growth, though we will see later from an examination of net interest levels that independent grocers are far less likely to implement them. Currently, approximately one-fifth to one-fourth of respondents have installed digital tags for updating and dynamically pricing center-store items, as well as digital freezer display cases or digital signage to promote specials at end-caps or perimeter stations. Implementation is still in very early stages for touchscreen-enabled "smart" shopping carts (deployed by only 12% of operators) and kitchen robots (deployed by only 4% of operators).

Which technology solutions do you already use in your operation? Of those you don't use, are you interested in adopting them?

All Respondents	We ALREADY USE this	We don't use, but we ARE INTERESTED	We don't use, and we are NOT INTERESTED
Workforce management software	72%	21%	6%
Inventory management software	69%	28%	4%
Self-checkout kiosks	65%	20%	15%
Software for data security	55%	30%	15%
Software for loss prevention / shrink reduction	52%	41%	6%
Software for food safety / product sourcing	43%	45%	12%
Legal / compliance software	26%	29%	28%
Digital price tags for center-store items	21%	50%	25%
Digital freezer case displays	13%	45%	34%
Digital signage for end-caps and perimeter stations	21%	50%	28%
"Smart" shopping carts	12%	49%	39%
Kitchen robots	4%	34%	62%

The interesting comparisons to draw between chain and independent respondents are found within their net interest in each potential technology solution, which can be calculated by subtracting the percentage of operators uninterested in each option from the percentage of those who are interested in implementing them.

Among the more common in-store solutions, independents have significantly higher net interest than chain peers, showing their intention to catch up in adopting apps and software designed for shrink reduction, inventory management, data security, and workforce management.

Which technology solutions do you already use in your operation? Of those you don't use, are you interested in adopting them?

NET INTEREST: (% Interested respondents - % Not Interested)	All Respondents	Chain Respondents	Independent Respondents
Software for loss prevention / shrink reduction	35%	28%	49%
Software for food safety / product sourcing	33%	31%	38%
Digital price tags for center-store items	25%	31%	14%
Inventory management software	24%	11%	49%
Digital signage for end-caps and perimeter stations	22%	24%	19%
Software for data security	16%	6%	35%
Workforce management software	15%	10%	24%
Digital freezer case displays	11%	22%	-11%
"Smart" shopping carts	9%	25%	-22%
Self-checkout kiosks	6%	7%	3%
Legal / compliance software	2%	3%	0%
Kitchen robots	-28%	-19%	-46%

Chain operators' net interest significantly outpaces that of independent respondents when it comes to digital hardware for in-store merchandising. For example, digital price tags garnered a 31% net interest among chain retailers, compared with only 14% for independents. The net interest among chain respondents reaches 25% for smart shopping carts and 22% for digital freezer displays, while that metric is negative among independent retailers, meaning the demand for these solutions just likely won't be there for single stores.

Net interest is relatively healthy for both kinds of retailers for digital signage meant to spruce up end-caps and perimeter stations. Net interest was 22% among all respondents, including 24% for chains and 19% for single stores.

That figure was only 6% for self-checkout kiosks, suggesting that this hardware category has reached maturity, and significantly negative for kitchen robots (-28% for all respondents), which means robots probably have nowhere near the potential use case they do for limited-service restaurants.

Independents Race to Catch Up in E-Commerce

Independent respondents previously indicated they need growth drivers for the in-store experience, while chain retailers have shown interest in accelerating online ordering, so it makes sense that several e-commerce and digital-marketing tools have achieved wide adoption. While chain brands lead single-store competitors in adoption of each solution due to their scale, enough independents have made requisite investments for there to be industrywide penetration of more than 80% for digital-marketing software, more than 70% for first-party online ordering, and more than 60% for loyalty programs and third-party delivery.

Which e-commerce solutions do you already use in your operation? Of those you don't use, are you interested in adopting them?

All Respondents	We ALREADY USE this	We don't use, but we ARE INTERESTED	We don't use, and we are NOT INTERESTED
Digital marketing for direct offers / coupons	83%	15%	2%
First-party online ordering	73%	17%	10%
Loyalty programs / gasoline rewards programs	68%	21%	11%
Third-party online ordering	63%	16%	21%
"Video commerce" livestreams / retail media networks	36%	38%	27%

Based on their stated interest in digital-marketing tools, independents clearly want to catch up and reach parity with chain competitors in their use of software that can automate strategies like segmenting customers and producing personalized offers sent directly via email or text. They also trail chain peers in the adoption of online ordering and recognize they need to close that gap.

Which e-commerce solutions do you already use in your operation?
Of those you don't use, are you interested in adopting them?

NET INTEREST: (% interested respondents - % not interested)	All Respondents	Chain Respondents	Independent Respondents
Digital marketing for direct offers / coupons	13%	7%	24%
"Video commerce" livestreams / retail media networks	11%	10%	14%
Loyalty programs / gasoline rewards programs	10%	4%	22%
First-party online ordering	6%	3%	14%
Third-party online ordering	-6%	-10%	3%

One of the newest e-commerce trends in the grocery business, commonly referred to as "retail media networks" for video commerce, appears to be in an early enough stage that both chain and independent respondents have begun to adopt it and currently hold high levels of interest to learn more. More than one-third of all respondents (36%) are using retail media networks in some way, including 43% of chains and 22% of independents.

To be fair, 27% of all respondents said they are uninterested in adopting a video commerce platform, meaning this strategy has a high bar to clear when making the business case to grocers who do not see it being relevant to their customers. It takes a lot of money and time to create video content like cooking demonstrations for the purpose of serving up ads and special offers for ingredients and products showcased in those videos. Even if more e-commerce comes from video platforms like YouTube and TikTok over the long term, it may be too early for widespread adoption in the supermarket industry.

Yet net interest in retail media networks is positive for all respondents, including 14% for independent retailers and 10% for chain operators. As solutions like these evolve and develop, they'll continue to maintain attention, if not investment.

Intelligent Experiments for A.I. in Supermarkets

For all the buzz in recent years around artificial intelligence as an emerging solution in the retail industry, some A.I. applications showed surprisingly high levels of adoption among respondents to this survey. Operators likely recognize that A.I. is what drives key features of software programs they have already adopted, and so enthusiasm for A.I.'s potential appears to be outweighing skepticism among both chain and independent respondents.

Which A.I. solutions do you already use in your operation?
Of those you don't use, are you interested in adopting them?

All Respondents	We ALREADY USE this	We don't use, but we ARE INTERESTED	We don't use, and we are NOT INTERESTED
Sales forecasting	59%	35%	6%
Automated marketing for personalized offers	55%	28%	17%
Labor forecasting	54%	33%	13%
Automated stock alerts / reordering of inventory	50%	37%	13%
Suggestive upselling / ads for online orders	47%	29%	24%
Suggestive upselling / ads for video content	33%	37%	30%
Suggestive upselling / ads at self-checkout	26%	41%	33%
Chatbots for our website or telephone line	24%	32%	44%
Chatbots at self-checkout	17%	36%	47%

Most respondents, albeit a group skewed toward chain operators once again, indicated that they already leverage A.I. functions such as sales forecasting, labor forecasting, automated direct offers in their marketing programs, and automated out-of-stock alerts or reorder functions contained within their inventory management software.

Interestingly, these four categories of A.I.-powered solutions also have the highest levels of net interest among respondents. Independents show a higher net interest than chain competitors, owing to their desire to catch up in adoption, significantly so for labor forecasting and the automation of direct offers and coupons using customer data.

Which A.I. solutions do you already use in your operation?
Of those you don't use, are you interested in adopting them?

NET INTEREST: (% interested respondents - % not interested)	All Respondents	Chain Respondents	Independent Respondents
Sales forecasting	28%	25%	35%
Automated stock alerts / reordering of inventory	24%	21%	30%
Labor forecasting	20%	11%	38%
Automated marketing for personalized offers	12%	4%	27%
Suggestive upselling / ads at self-checkout	8%	14%	3%
Suggestive upselling / ads for video content	6%	17%	-14%
Suggestive upselling / ads for online orders	6%	13%	-8%
Chatbots at self-checkout	-11%	-8%	-16%
Chatbots for our website or telephone line	-12%	1%	-38%

Where respondents are either late to adopt A.I. or show relative disinterest in it are the use cases that interact with customers more directly. A.I. can be used to serve up display ads or suggest different items as an upsell opportunity, often when a customer is shopping at a store's online-ordering portal or viewing content on a retail video network. Adoption is divided significantly along chain-versus-independent lines. Three in five chain retailers use A.I. to upsell in their online-ordering platforms, compared with 22% for independent respondents, for example.

Suggestive upselling is used less often at self-checkout, likely because operators want to keep that experience more frictionless for shoppers.

But net interest among all respondents failed to reach even 10% for A.I.-powered suggestive selling across any scenario, including for online ordering, video commerce, or self-checkout. Chains are driving what interest there is for these use cases; independent respondents reported negative interest for all three.

Chatbot usage, whether for a grocery store's website or telephone line, and especially for use on a self-checkout terminal, appears to be irrelevant to operators' technology plans. Adoption is low, and net interest for further investment in chatbots is negative.

How Grocery Retailers Drive Innovation

Sylvain Perrier of Mercatus explains how technology can create online and in-store experiences that bolster the bottom line

Sylvain Perrier, president and CEO of digital-commerce platform Mercatus, spoke with Supermarket News about the grocery industry's evolution to adopt new technologies and data sources, and how retailers are making those investments not only to power online sales but also to improve their in-store experience for all their stakeholders.

Given how much the grocery industry has changed and continues to evolve, how has the profitability equation for retailers changed?

When we were at the height of the pandemic, all the vendors out there in the market were talking about omnichannel coalescing the in-store experience with the online experience. Then suddenly, we're over the pandemic, the cost of labor is extremely high, you have SKU rationalization, and then you have inflation hitting households.

If you're a retailer, profitability is top of mind. Cost management is critical, but even more important is, how do we get back to the roots of our vision, and that's servicing our communities.

How does that balancing act affect whether supermarkets focus on the top line or the bottom line?

What are you more focused on right now as a retailer, acquiring new customers or retaining customers? You would think it would skew toward retaining, because we know customers in an inflationary period are trading down and trading out. But if I can convince 80% of my customers to put $2 more in their basket, that goes straight to the bottom line. You're negating the cost of acquisition. If you have a good handle on your segments, you start to realize that there's a broad percentage that shops you for

what you have on sale, and that erodes your margins. You need to make a difficult decision, which is allowing those customers to transition out, and making that difficult for them to do, by having a well-crafted loyalty program where you're rewarding your best shoppers and making sure your best shoppers stay.

Retailers agree that technology will be important to making some of these transitions, but how should they approach broader efforts at change management?

There's one thing a lot of companies forget when there's any change management, and that's continuous communication. It's saying to your shareholders, your executive committee, your capital, and your employees, "Here's how we're going to proceed, and here's how you're going to be involved." Technology vendors may understand where new solutions live in the lifecycle for modernization, but they may or may not appreciate the disruption that may cause at a store.

There's also the question of bringing on vendors and third parties to enable online and off-premise channels. How should retailers manage that interplay?

It's more about, how do we help the retailer generate more revenue and service their communities? Sometimes that's first-party [online ordering and delivery], and in many cases

it's "1P-plus," supported by the third-party delivery companies out there. I think there are still a lot of markets where retailers have labor shortages still today, and so we need to understand that to understand what's the best operating model for them.

Cost and integrations were cited as barriers to adopting more technology. Are there other big hurdles?
Not that long ago, in 2008-2009, many CPG vendors paused credit facilities for some very large retailers, who were unable to access certain products. If the macro drivers continue in a detrimental state, there could be another cascading effect where retailers will have a challenge operating. In the last few years, the cost of operating has been expensive but there's been a lot of cash. Retailers now are being more careful of where and how they're spending their dollars. There's a greater degree of scrutiny of what's the demonstrable proof of return and of profitability.

Your point about ROI makes me wonder how you think about emerging e-commerce strategies, like retail media networks and video commerce.
With some of these, you need to understand who is your current consumer base and, depending on where you're geographically positioned and what your brand is, what is the likelihood of transition and who is going to be your future consumer? There are going to be pockets of technology to

experiment with and try, but it will be very difficult to discern their stickiness today and tomorrow. It's not only, what's the value proposition? It's also, how is this going to create a return to you?

As retailers modernize their stores over the next decade, do they necessarily need the goal of growing the share of sales from digital and off-premise, at the expense of on-premise?
I think we're looking at a lengthier cycle, maybe over the next 20 years. Brick-and-mortar is not going anywhere, period. There will need to be a deeper rationalization about what ends up on store shelves. I'm always perplexed on the variety of certain things that are on shelves, but as consumers we buy the same 1,000 SKUs on an annual basis anyway.

Assuming that gets figured out, how do we strike that balance between convenience to the consumer and a technical experience that straddles in-store and online? That's really partnering with good organizations to support that mantra.

Speaking of evolving technology, what do you think about the potential for artificial intelligence in supermarkets, either customer-facing uses or employee-facing ones?
My approach has always been to start with the back office, where we could really move the needle. On the front end,

yeah A.I. is cool and sexy, but it's still a very small percentage of people that are buying groceries online. If you turn it toward the inside of the business around assortment, shelf conditioning, inventory levels, and price optimization, to me the case is a lot stronger to use it.

Fundamentally today, not every retailer has the data governance and chops to get the basics off the ground. If you start in the back office, eventually to flow it to the front of house is easier. The challenge is that all these A.I. pieces are coming in and asking for data, but we're all going to ask for data in different formats. Nobody has said, "Whoa, we need a standard of interoperability here."

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Mercatus helps leading grocers get back in charge of their ecommerce experience, empowering them to deliver exceptional retailer-branded, end-to-end online shopping, from store to door. Its expansive network includes more than 60 integration partners that work with Mercatus to enable retailers to create authentic digital-shopping experiences, drive shopper engagement, grow share of wallet, and achieve profitability while adapting to changes in consumer behavior.

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