Fourth

Industry Report

Driving profit with AI
in your restaurant operations

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Contents

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AI is set to transform the restaurant industry

If maintaining profitability in your restaurant business feels harder than ever before - you are not alone. 98% of restaurant operators say higher labor costs are an issue for their restaurants, according to the National Restaurant Association, while the US government CPI data reports that food costs have risen by 25.8% from 2020 through 2024. With labor and food costs (check out our guide to prime costs) accounting for roughly 60% of a restaurant's expenses, inflation in these two areas is inevitably hitting profits and putting pressure on operators to increase prices for customers to maintain margins. But price rises impact demand. Arguably, inflation hits restaurants hardest of all industries, with cost-conscious customers cutting back on dining out as prices rise. In March 2024, reuters reported that 25% of lower income consumers are cutting back on dining in fast food restaurants, with over 50% cutting back on fast casual dining.

For operators, there is a compelling need to find strategies to mitigate rising costs, while maintaining high standards of guest experience, retaining their workforce and keeping prices competitive. General managers are typically on the frontline of this battle - under pressure to hit their numbers while still engaging customers and supporting their team. Many are overwhelmed and in dire need of better tools to make the right decisions to consistently drive profit.

And right on cue, a solution is emerging - restaurant operators are increasingly embracing a transformational technology that is giving them the capability to control costs, grow sales and empower their managers - **Artificial Intelligence (AI).**

Given the size of the challenges facing restaurant operators, AI is quickly switching from an experimental technology to a key strategic driver of profitability. But where to start?

Early adopters of AI restaurant technology are finding practical solutions with immediate benefits—if they choose thoughtfully and implement carefully. From predicting customer demand to optimizing labor schedules to recommending inventory orders to automating routine tasks, AI has the ability to transform restaurant operations.

But AI—as we'll explain in this industry report—isn't about replacing managers. It's about making them more powerful than ever. With AI providing more relevant recommendations, stronger forecasts, and better ideas— managers can spend more of their time leading teams and delighting guests.

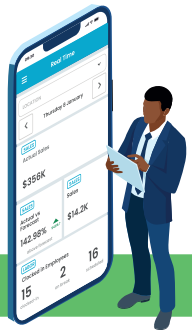
Whether you're running two locations or two thousand, AI can help managers maximize profitability at every location. For an industry driven by tight margins and a demanding customer base, AI is more than just a new tool—it's a way to support managers to thrive in today's challenging environment.

> "98%
> *of restaurant operators say higher labor costs are an issue for their restaurants, according to the National Restaurant Association.*

Why restaurant operations are suited to AI

Restaurant operations are well-suited for AI for a number of reasons. Running a successful restaurant is formed of many moving parts, with countless decisions being made in real-time each day and each week - such as scheduling employees, ordering inventory and preparing ingredients. Additionally, demand within the restaurant fluctuates throughout the day and over the weeks and months requiring constant readjustment of the levels of staff, inventory and prep. Making the right decisions each day depends on having a firm grasp of demand and taking the appropriate actions as profitably as possible. Thankfully the behavior of restaurant customers follows patterns and is therefore relatively predictable - and AI is effective at learning from patterns and providing predictions and recommendations that outperform human judgment alone. For example, a McKinsey report, suggested that AI could help reduce forecasting errors, leading to a 30% decrease in food waste across the food and beverage industry (McKinsey & Company).

AI transforms both Above-Store and In-Store operations:



In-Store

AI can be a constant companion to help managers see what's happening and what proactive steps they need to take. AI can continually monitor multiple data sets—historical sales, promotions, weather, seasonal changes, and more—to give the manager a real-time recommendation for the "next best action."

This is critical for maximizing profit. Managers often don't realize they've overspent on labor until it's too late in the week to balance out. AI forecasting can accurately predict demand and then suggest the optimal schedule to meet demand at the least cost. If the manager agrees, the A engine can automatically update the schedule. Similarly, AI can help identify the optimal inventory levels to purchase and prep avoiding unnecessary waste.

With AI as a helping hand, restaurant managers (irrespective of experience) can meet expected demand, increase revenue, and improve profitability— while reducing manual tasks that keep them chained to their desks and away from their team and customers.

Above-Store

While restaurant managers make critical day-to-day decisions, many critical decisions are made 'above store' at the regional and corporate level. These decisions play a large role in overall profitability by defining: labor rules, purchasing policies, and the deployment of resources, among others. AI can play a critical role in these 'above store' decisions.'

An AI-driven 'profit engine' can provide intelligence across all locations in a chain. This engine analyzes all available data, giving corporate leaders a real-time view on how each location is performing. It then provides insights where corrective action is needed.

This profit engine doesn't just improve individual location, it can identify the processes needed to maximize profits across all locations. For example, a chain might have a suboptimal set of labor rules which don't take into account different location types (city vs. suburbs, drive-through vs. sit-down, etc.). AI can continually modify the rules applied to restaurants to ensure the highest sales and least cost for every location.

How AI is being used in restaurants today

AI Labor Forecasting

AI labor forecasting helps restaurants stay profitable by making sure staffing matches demand. AI can analyze a range of data—such as weather patterns, promotional events, seasonality, and historical sales—to create accurate forecasts.

As restaurant leaders have told us, managers need to manage the delicate middle ground between overstaffing and understaffing. Overstaffing leads to high labor costs and potentially unprofitable shifts. Understaffing leads to underwhelming sales and negative guest experience.

AI can predict spikes in demand by taking into account seasonality, weekday vs. weekend demand, promotions, holidays, and much more. All this makes managers more efficient and lessens the demand on new managers who are likely to overstaff or understaff.

AI Inventory Forecasting

AI helps restaurants reduce food waste by predicting the exact amount of inventory required, thereby avoiding over-ordering or under-ordering essential ingredients. For example, it can highlight patterns such as specific ingredients being regularly ordered in excess. Or popular menu items running out because certain ingredients were under-ordered, leading to reduced guest satisfaction.

Food waste isn't just an environmental issue—it's a huge factor in profitability. By reducing food waste alone, restaurants can save up to $8 for every $1 invested, according to the National Restaurant Association.

AI in Menu Ideation

Restaurant operators are using AI to create their menus. For example, AI can continuously monitor which items are being sold as well as which ingredients are getting purchased and continue to be available. By comparing these, AI can recommend new dishes or recommend modifications to existing ones. From there, restaurant teams can go immediately into recipe development and testing. By cutting down on the time it'd take for humans to analyze data and brainstorm new ideas, the menu ideation process can go from days to hours. Of course, the human touch remains critical. But humans are able to spend it on where it matters—for example, on testing—and save time where it doesn't.

AI in Recruitment (Talent Acquisition)

AI is transforming how restaurants attract and hire talent, especially in how it bids for talent. AI can analyze data on where and when restaurants are most likely to find qualified candidates, focusing their time and budget where it matters most. This is especially relevant for platforms like Indeed to ensure that job postings are seen at optimal times, reducing the cost per hire. When we spoke to Jamie Harrison at Yum Brands, she was able to reduce the cost of sourcing candidates by 90% using AI to place job ads more strategically. AI was able to analyze when candidates are most likely to be job searching, increasing bids during these hours while decreasing bids when they weren't.

AI-Driven Real-Time Insights

AI gives restaurant managers access to real-time data and insights. For example, by monitoring key performance indicators (KPI) such as sales to labor ratios and sales per labor hour in real-time, managers can make quicker, more accurate decisions to optimize store performance.

By providing relevant insights instantly, AI eliminates the need for managers to manually collect and analyze data, freeing them to focus on guest experiences and staff engagement. This contributes to higher employee retention and better service quality, making the restaurant more competitive and profitable.

Getting started with AI in your restaurants

Getting started with AI can be transformative, but it requires a thoughtful approach. Focus on these key lessons from the restaurant leaders who've had success with AI.

1 Buy vs build

AI requires huge investments in personnel, data, and time, making it impractical for restaurant chains to build their own solutions. Restaurants by nature have low profit margins, making it difficult to invest in large technology teams. This is especially the case for Data Science teams, who are some of the most difficult technologists to find, attract, and retain. Partly because they command the highest salaries in technology. After hiring this team, they would have to feed their model massive amounts of data, spending countless hours cleaning data and training models. Then you need to deploy and maintain the AI over tim to make it effective. Of course, building your own can ensure you have something unique to your business, but arguably the commercial benefits of this are far outweighed by the effort of achieving it..

As a result, restaurant operators who've adopted AI models suggest starting with buying an AI solution first before trying to invest in building your own. Purpose-built AI solutions with trusted vendors reduce the likelihood of investing heavily in a technology solution that could prove to not provide any meaningful insights or operational efficiency. That way you can just focus on using the technology and making the most of it, especially by learning how other restaurants like you have used the same technology to be successful. As well as how you might customize it to make it even more effective for you.

Buying before building also gives you the ability to tap into existing know-how and technology without needing to develop your own independently, says Whataburger's VP of Technology Jerry Phillips.

WHATABURGER

"With Fourth, we have a partner with deep industry experience and the right technology to help us embed AI across our back-office operations."

JERRY PHILLIPS, VP OF TECHNOLOGY AT WHATABURGER

2 Pick the right partners

One of the easiest ways to begin your AI journey is to consult with your existing vendors. Ask them how they're integrating AI into their products and how it can benefit you. If they're not using AI, it's probably a sign that they're not forward thinking, says Jason Norian, VP of Asset Management at Brinker International (Chili's, Maggiano's).

Whether it's inventory management, labor scheduling, or guest experience, vendors offer pre-built AI-driven solutions that you can use without needing to develop your own.

Part of picking the right partner is finding a partner whose roadmap is built to help you make the most of AI for restaurants and your specific business model. That means understanding not just forecasting as a financial tool, but forecasting for restaurants: labor patterns, the time to cook dishes, the impact of weather on item sales, and more.

When choosing partners, it's important to pick one who can support the full scope of your AI ambitions. AI isn't just a front of house tool but a back of house one too, says Roberta Frierson, Senior Vice President Of Technology at Bar Louie. That includes "recruiting, hiring, scheduling, and paying team members," says Frierson.

Brinker INTERNATIONAL

"In our quarterly business reviews, we're asking vendors: What are you doing to incorporate AI and automation? If they're not keeping up, they're going to lose us as customers."

JASON NORIAN, VP OF ASSET MANAGEMENT AT BRINKER INTERNATIONAL

3 Change management is critical

With any technology, one of the biggest challenges is getting your team to use it. And with AI, there are often issues of trust. While it'd be tempting to assume that employees will automatically embrace anything that helps them, that's not the case. Real change requires communication and support.

Start by communicating the benefits clearly. Show how AI-generated forecasts, for example, compare to actual outcomes. Measure staff sentiment beforehand to set your baseline. Then after you implement, measure sentiment to see how it's improved.

AI can often forecast demand better than managers, Jason Norian (Brinker International, Chili's, Maggiano's) pointed out, but they need to see results over time to build confidence in the technology.

Any AI model will need continued fine tuning, just like people need to be given feedback over time. The right vendor will help you implement and support you in this journey as you roll it out to your team, gather feedback, and continue to improve your AI model.

"Everyone thinks you can just throw out technology, and people will start using it and believing in it. It doesn't happen overnight. You need change management resources to show them why it's better."

JAMIE HARRISON, CHIEF PEOPLE OFFICER AT PIZZA HUT

4 Bionic arm, not a replacement

AI's best use is enhancing people, not replacing them.

"AI is like a bionic arm that makes you stronger versus a robot that's going to take your job," says Jason Norian, (Brinker International, Chili's, Maggiano's). "With AI, we can focus on higher-value opportunities and move faster."

While AI can automate mundane tasks or come up with new insights, you still need human beings to make split second decisions and lead teams of people. AI can predict demand for extra staff during football season, for example, but if a manager knows that the local schools changed the day of their homecoming games, they can update the model to reflect that.

Graham Fenwick, Productivity & Change Director for PizzaExpress, stresses the importance of using AI to set initial forecasts and then leaning on managers to improve those. By developing an AI-first and human-refined model with Fourth's AI forecasting tool, Fenwick experienced a 25% accuracy improvement over human beings alone.

It's important too, operators say, to adopt AI solutions which are already built into your solution. For example, AI engines purpose-built for restaurant operations. Operators say this saves them the time of juggling multiple solutions or needing to retrain general purpose models for restaurants, leading to errors and lost profitability.

Vendors who have implementation teams and data scientists who specialize in your business model can help fine tune models to make the most of AI, increasing their efficacy and impact on profits.

"AI forecasting gives managers a more accurate baseline from which they can build and tweak using their own knowledge and experience. Since implementing Fourth's AI Forecasting, we've seen a 25% accuracy improvement."

GRAHAM FENWICK, PRODUCTIVITY & CHANGE DIRECTOR, PIZZAEXPRESS

5 Start with one use case

Adopting AI isn't about flipping a switch overnight. It's a process that takes support and patience, so restaurant operators we've spoken with suggest starting with one clear use case, whether that's inventory forecasting, labor forecasting, AI-driven manager recommendations, or something else.

By starting with one area, you give managers the chance to adapt to AI in one area of the business and to see its value before expanding. You also give managers the chance to ask questions and get support to feel comfortable using new tools and learning new processes.

Managers will grow more confident in AI as they see it outperform manual processes. Jamie Harrison of Pizza Hut noted that after implementing an AI tool for labor forecasting, 93% of managers reported satisfaction with the system.

"Even though the computer may be better, people have a hard time trusting it if they haven't seen it work. So, show data before and after to build that trust."

CLINTON ANDERSON, CEO AT FOURTH

6 Maintain clean data

AI thrives on data—so the cleaner the data, the more effective the AI. Clean, well-organized data helps AI with better predictions and recommendations. The more inputs you provide for it, the more it can consider when making recommendations. From tracking sales, labor, and inventory data to ensuring accuracy in guest experience metrics, keeping your data in good shape will maximize AI's potential.

"The engine is the algorithm, but the fuel is the data," says Jason Norian (Brinker International, Chili's, Maggiano's). "The more data you have flowing through the system, the smarter AI becomes."

Richard Simpson, Director of Operations for Thai Leisure Group, stresses the need for good training data for AI platforms. The best AI engines are set to constantly learn from new data, so it's important to choose a partner who will continue to improve it. "The system always learns, and the more information we get, the more we can learn about our business," says Simpson.

"It's important to work with a partner who will be checking in and making tweaks to optimize your AI model. The system always learns, and the more information we get, the more we can learn about our business."

RICHARD SIMPSON, DIRECTOR OF OPERATIONS, THAI LEISURE GROUP

7 Define policies for AI use

To ensure that AI tools are effective, restaurants must establish clear policies on how to interpret and use AI-generated data. For example, AI can help create better schedules based on forecasts. But policies need to be in place to ensure managers understand when to follow the recommendation vs. when to exercise their judgment.

Using AI doesn't mean removing human oversight. Managers, especially inexperienced ones, need to know when they can make the final call based on their unique understanding of the business.

SSP America
The Food Travel Experts

"You're going to have to make decisions beyond technology. You'll need to decide where on the spectrum your operation falls between 'robots running the place' versus 'robots providing suggestions.'"

TODD KAUFMAN, VP AT SSP AMERICA

Fourth

Case Study: Noodles & Company

noodles & COMPANY

How Fourth's AI-driven forecasting reduced labor spend and upskilled managers across their 468 locations

AI-driven forecasting, coupled with smart labor modeling and advance scheduling helped Noodles and Company optimize staffing levels across the 468 locations. This led to a $4m reduction in labor spend immediately after implementing Fourth's solution, while also benefiting from a 20% increase in labor forecasting accuracy

"We saw the magical formula satisfying both financial needs and the service needs of the business with the Fourth solution.

Through the advanced labor rules from HotSchedules, we've been able to level the playing field for managers - regardless of the experience, technical acumen, and comfort they might have."

David Lehn, Director of Project Management, Noodles & Company

"$4m
reduction in labor spend

Unlock an AI-driven profit engine for future success

The restaurant industry faces more challenges than ever—from tighter profit margins, rising labor costs, and increased costs of goods sold. AI offers a path to powerful, data-driven decisions to streamline restaurant operations and increase profitability.

Restaurants are already seeing improved profits by implementing AI: from creating more efficient schedules, reducing food waste, decreasing recruiting spend, decreasing labor costs, and increasing sales. The best restaurants are thoughtful on how these are getting implemented—by treating AI like bionic arms that empower managers rather than threaten them.

The future of restaurants is more complex than ever. But with AI, managers are getting the crucial help they need to get profitability back where they need it to be.

Maximize profits at every location with Fourth iQ

Fourth's game-changing AI capability is unlocking a transformational profit engine for our customers - empowering managers with real-time actions and optimizing operations across all locations.

Our customers are achieving impressive results with Fourth iQ

15%
Uplift in sales

22%
Reduction in over-scheduling

25%
More accurate forecasts

$4M
Savings in labor costs

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