Back to the Future:

Why a revolution in digital technology is just what the back-of-house ordered

A revolution in digital technology has swept through front-of-house foodservice operations, and its effects have been so remarkable that even industry veterans have gotten whiplash.

"I'm probably one of the few people who remembers using dupe checks in the front-of-house back in the day when I waited tables," said Richard Lopez, manager of field services and solution engineering for TransAct Technologies.

And how times have changed. Widespread adoption of point-of-sale (POS) and allied software has taken hospitality from notepads in back pockets to everything from placing orders and processing payments to seating guests and splitting checks being done electronically.

Yet, while 21st-century technology has reshaped front-of-house activities, a digital divide still leaves some back-of-house operations functioning as though mechanical pencils were state of the art.

It doesn't need to be that way. Back-of-house pressures are precisely the problems that automation was designed to address. By building a suite of digital applications tailored to their unique needs, restaurants can close the front/back divide, generating efficiencies that reduce costs, increase revenue and safeguard the most important bottom line: a guest experience worth repeating.

Mind the gap

When Lopez looks back on his days working the floor, he remembers a paper-based business whose only nod to automation was the "knuckle buster," which processed credit cards at the bar.

"It was just an imprinter," Lopez said, "and at the end of the night, the manager would call the processing company and literally read through the list of credit card numbers. So you can imagine how many mistakes could be made because of somebody's handwriting or misreading a few numbers. There were so many issues with accountability."

Today's tech-based solutions have erased that margin of error, not to mention the margins associated with reporting sales, tracking customer preferences and ensuring that orders aren't just accurate but account for allergies and sensitivities, too.

In fact, Lopez said, "front-of-house automation has made everything more accountable. The trend has been enormous from where we were ten years ago." But industry's embrace of technology hasn't happened overnight.

From high-touch to high-tech

Foodservice, after all, has traditionally leaned low-tech, observed David Henkes, advisory group senior principal for Technomic Inc., based in Chicago. "It's always been a service-oriented business where you're essentially using hospitality as a differentiator. So it's a fairly recent evolution for technology to enter as a differentiator."

Thus far, that differentiation is most visible front-of-house.

Why? Miguel Ortiz, TransAct's vice president of marketing, wagered it's because "front-of-house technology produces results that consumers see." Online reservations, loyalty programs and self-serve kiosks may reap dividends for management in terms of data and rationalized staffing, but their marquee value lies in "helping customers have the best experience," Ortiz said.

"A lot of investment has gone into this," he noted. "But now that we've reached launch velocity in these areas, I think a lot of owners are looking for tech efficiencies in the back of the house."

Day in the life

You can't blame them. Restaurant kitchens are activity hives where so much goes on that it's easy to lose track of minor details amid the buzz. The only problem: There are no minor details.

"Whether you're quick- or full-service, any time you open a kitchen, there's a series of tasks to be done," Lopez said. "Staff review, checking inventory, receiving new items, making prep lists, labeling food, setting up the station as per chef or manager preferences: All these jobs are time-consuming, yet they're usually done based on paperwork, a chart posted somewhere or somebody just showing you how it's done."

Ortiz witnesses this firsthand in the field. He visits a variety of kitchens, "and I can tell you," he said, "that when you walk into some, it's like you're walking into a different age." It's not that processes are absent — "everything back-of-house has a process," he insisted — but "it's still all manual."

Consider opening and closing. Ortiz said that every restaurant follows different procedures. They have special instructions for everything from how to turn on grills and signage in the morning to how to turn it off and store everything in the right spot at the end of the day. Usually, these processes are written down on paper, and employees will check off what they're doing when they do it.

A similar protocol governs temperature monitoring. Whether for ingredients, prepared foods or refrigeration equipment, back-of-house staff keep continual, shift-by-shift temperature records to ensure things remain within specifications. Again, those records often live on "a piece of paper filled out with information that you put in a file cabinet," Ortiz said.

And that's just the start. Inventory management, condiment tracking, deep-clean checks, SOP assessments, shift changes, HACCP and food-safety monitoring: In so many instances, staff undertake tasks as if it were 1999, with a clipboard in hand and management's confidence in their ability and intention to perform as trained.

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What could go wrong?

"I can tell you this is happening as I describe it almost everywhere I go," Ortiz continued. "It's very paper-intensive and manually focused, and it relies on the knowledge base of your employees. I liken it to walking into your accountant's office and watching them pull out a green-lined ledger."

And just as an accounting error can come back to bite you at tax time, poorly maintained or inaccurate kitchen checklists have real-world consequences that range from the financial to the life-threatening.

It shocks Ortiz to witness how vulnerable some back-of-house operations leave themselves by relying solely on analog forms to oversee food, employee and guest safety.

"I've seen temperature-monitoring sheets for walk-ins and freezers that are all marked off at, say, 1:30 p.m. every day," he said. "And you become incredulous: Did they really monitor this at 1:30 every time, or did somebody just come through and fill the sheet with what people want to see?"

Even absent willful negligence, well-meaning staff may inadvertently calculate the wrong pull dates for labels, use inappropriate cleaning solutions to mop up spills or misfile critical paperwork.

Over time, the missteps pile up. "If you see it at one restaurant, you may think it's an innocent mistake," Ortiz said. "But we've all seen examples where multiple locations aren't following safety practices. And it can absolutely batter your brand."

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The labor factor

"Until now, restaurants have been able to throw bodies at this problem," Ortiz continued. Indeed, despite notoriously thin profit margins — as low as 3% to 6%, per the National Restaurant Association in Washington — many operators still devote their most valuable resources, their employees, to the most repetitive tasks.

"With $15-an-hour minimum wages making their way everywhere, and with unemployment at all-time lows, you can no longer afford to throw another body in there," Ortiz said.

The upside: "One of the factors driving kitchen technology has been labor," said Lopez. Henkes agreed. "Back-of-house technologies are more clearly about efficiencies, cost reduction and being more productive with the resources you have, potentially even saving labor costs down the road," he said.

And in today's environment, that's no small matter. Henkes noted that Technomic research ranks retention of qualified employees as operators' top concern, with concerns around recruitment second. "And that's out of 18 to 20 concerns that we asked about," he added. "There's no question that retention and recruitment, as well as labor costs and training, are all critical."

The goal is to make back-of-house operations more efficient and productive, which in return improves front-of-house operations, too.

This is where an ensemble of digital applications tuned to the rhythms of the back-of-house earns its keep. By automating repetitive tasks, digital solutions can:

- Lessen the risk of human error.

- Shorten task time.

- Increase compliance and quality.

- Ease recordkeeping and retrieval.

- Improve communication.

- Ensure accountability.

- Encourage staff to develop their skills, and direct them to higher-order tasks.

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Apps in action

Ortiz and Lopez see these apps in action every day, and the transformations they enable are impressive.

For example, the back-of-house automated solution BOHA!, created by TransAct, includes an app that connects sensors in freezers and walk-in refrigerators to the cloud. When a sensor notices that a unit is off temp, it alerts operators immediately. "They're not waiting for the next shift change for someone to realize and take corrective action," Ortiz said. The app even pinpoints which corrective actions to take, helping to reinforce staff training and retention. Ortiz shared one situation: A customer noticed that the fridge, which was supposed to be 36 degrees, was constantly at 39.6. After careful monitoring of sensor data, the customer concluded that walk-in traffic was the culprit and installed plastic slats in the doorway to bring the unit's temperature back into range.

"What else did this mean?" Ortiz added. "Their compressor wasn't working 24/7 any longer trying to get the fridge down to 36 degrees. So they were saving energy and equipment life." And they were keeping perishable inventory safe, which should be top of mind with any operator.

The sensors also collected valuable data — thousands of points each day, Ortiz said. "Over a month, that's 300,000 data points, whereas you had zero before because all those temperature readings were in a filing cabinet that no one looked at."

Lopez recalled another case in which going digital promoted food safety while building more productivity into each labor hour. Before incorporating BOHA!, a restaurant operator assigned two staff members to use painter's tape to label product identity, ingredients, prep and pull dates. Employees wrote all this by hand 25 to 30 times per product they prepped, and the number of inaccuracies that could come from that was significant.

Once the restaurant began incorporating BOHA!'s labeling app into this process, the solution tracked critical changes — to pull dates, ingredients, cook times and the like — storing the data in the cloud and making it easily accessible to employees. What had been a two-person task involving markers, tape and the potential for error became an almost-foolproof process that one employee could execute in a fraction of the time.

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Apps take the pain out of inventory, too. Instead of sending two staff members into a freezer, walk-in or pantry — one to hunt for product and the other to note items on a checklist — the solution can allow one staff member to use a handheld device loaded with the app to count, log and complete inventory.

Since the on-location inventory uploads right onto the networked system, no one needs to sit at a computer to input the data a second time — making inevitable errors in the process. "It's a much easier method," Ortiz said, "that cuts inventory time from four hours down to about an hour and a half."

Digital systems are also proving themselves effective training tools. "We're seeing technology used as a training device with videos and virtual reality," Henkes said. "It lets people train in five-minute chunks between shifts or during downtime, as opposed to setting aside a whole day or even just a couple of hours for training."

Such apps harness the technology already in people's pockets — their phones — to educate them "in digestible bits and bytes, if you will," Henkes said. By putting materials literally in their own hands, training apps can not only let you recruit, train and retain employees but also "help make them happier and, ultimately, generate a cost savings through better retention," he added.

Choosing wisely

When Lopez meets with clients to discuss digital back-of-house options, understanding their pain points is the most important part of the job. "The chef has to be onboard; the managers have to be onboard — because they're the ones who're going to enforce this."

High on his list of digital-system must-haves is **simplicity**. "Making sure that a system is easy for staff to use so that they adopt it is one of the paramount considerations," he said. "If they don't find it easy to use or beneficial, they won't use it. And right there, you've lost your advantage."

A system needs to be **comprehensive** and **networked**, too, with all its parts speaking to one another in **real time and the same language**. As Ortiz noted, BOHA!'s apps "connect to one system, which is important. If you're looking for labeling, temperature-taking, temperature-monitoring — you don't have to go to two, three or four providers and onboard them onto your IT network one by one."
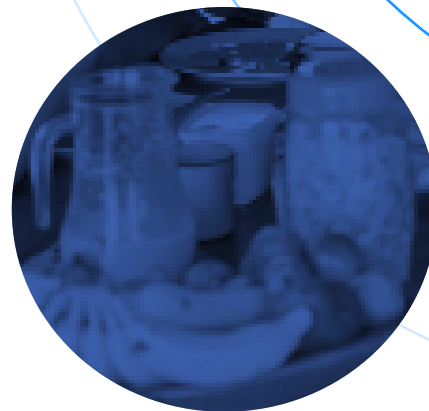
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Bespoke **customization** is also key, because not every restaurant needs every function all the time. Curating a system piece by piece — almost the way you'd add features to a custom car — keeps systems modular, **flexible and responsive to a unique operation**. As Lopez put it, "We don't just configure applications for the day-to-day, but customize them so that the transition from what's been done on paper for so long to a technology-based solution is seamless."

And back-of-house solutions literally need to be a good fit. "The technology has gotten to the point that it's smaller, mountable and doesn't require a lot of space," Lopez said. "Kitchens are tight, so providing a solution that's mobile and compact is one of the saving graces of how automation gets in there."

Why'd it take so long?

Once solutions enter the back-of-house, operators quickly ask themselves, "Why did we wait so long?"

"The benefits don't hit home until you see a truly integrated system," said Ortiz. "I think that brings peace of mind to owners because they have so much technology all over the store, and this helps keep track of it all."

So why *has* the back-of-house waited so long?

Henkes said it's a good question: "It's clear that technology can help restaurant operators, but many are risk-averse and holding back as they try to figure out which system is the best to go with."

The upside of finding that system is enormous

"When your restaurant is running more efficiently and you know exactly what a recipe will yield, you're better able to manage your menu," Lopez said. "And when you're making menu decisions and controlling costs that still let you make a decent profit without gouging guests, a diner who'd show up once or twice a month will start showing up once or twice a week because your price points are there for them. You can offer more for less."

An investment in modernizing your back-of-house technology is an investment in your business success and guest experience.

BOHA!™

BOHA! by TransAct offers restaurants, convenience stores, and food service companies the ability to achieve back-of-house operational excellence with software solutions from one vendor. BOHA! stands for back-of-house automation - and represents a suite of apps that automate time-consuming, error-prone back-of-house tasks that used to be done manually. With a unified platform, BOHA! allows companies to purchase one app or all ten apps, depending on the pain point they wish to address. Save on labor. Increase revenue. Welcome to BOHA!

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TransAct Technologies (NASDAQ: TACT) is a global leader in market-specific technology solutions. We have helped thousands of restaurants, convenience stores and foodservice operators improve food safety, increase operational efficiencies and gain critical insights into their daily processes.

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