



Why Pizza Robots Look to be Crucial Tools for the Future

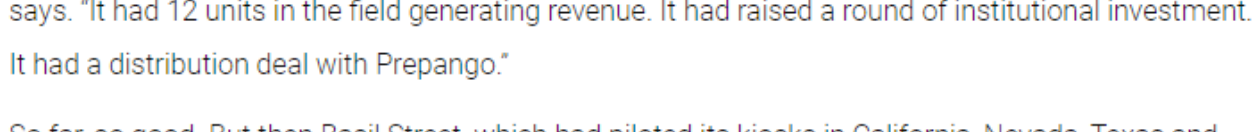
- Foodservice robots were everywhere at this year's National Restaurant Show and could change the way we make pizza. But is that what customers want?
- Handling dough is a key problem that robot manufacturers must address to ensure consistency of the pizza across a chain's multiple locations.

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By Rick Hynum

Basil Street Pizza was once a promising startup in the restaurant automation field, but something, somewhere along the way, did not compute. Headquartered in Los Angeles, the company touted its automated pizza kitchen—which used a three-element, non-microwave speed oven to fire up flash-frozen pies in three minutes—as “the future of pizza.” Now it looks to be history, with the company **shutting down and selling its assets**, as reported in late April by **OttOmate**, a digital business publication for the foodservice robotics industry.

For all of the skeptics who scoff at the notion of a machine making pizza for people, Basil Street’s demise might feel like validation. But Christopher Albrecht, OttOmate’s publisher, has his finger on the pizza robot’s pulse (so to speak). And he knows the issue is more nuanced than that.



“Basil Street is interesting, because it did a lot of things that you’d think would be correct,” Albrecht says. “It had 12 units in the field generating revenue. It had raised a round of institutional investment. It had a distribution deal with Prepango.”

So far, so good. But then Basil Street, which had piloted its kiosks in California, Nevada, Texas and North Carolina to apparent success, went the crowdfunding route to raise more equity. And that’s where they hit a brick wall, Albrecht believes. “This is a successful strategy for plenty of robotic startups—Blendid, all of Wavemaker Lab’s portfolio companies—but it’s not the same as running a Kickstarter [campaign]. Equity crowdfunding takes a lot of work and requires more regulatory approval. Basil Street was hampered by the pandemic, which caused production delays out of China, and getting through all the financial regulatory work to crowdfund took longer than anticipated. So the company just ran out of runway.”



Ecor International says OperaPrima is the only dough-stretching machine that can emulate a human chef’s skills.

So what does this say about the future of pizzabots? Not much, really. For every startup that rockets to success in an emerging field, there will always be a few flame-outs. And Basil Street had plenty of competitors that are still going strong. At this year’s National Restaurant Association Show, foodservice bots were everywhere, from Pepsi’s robotic server to **RichTech Robotics’** ADAM, a dual-arm system that can mix coffee drinks and cocktails. “We think this technology is still in its infancy stages, as right now it seems like capabilities are limited,” *Nation’s Restaurant News* reported, “but robots are less like gimmicks and more like crucial tools as the labor shortage continues.”

“Adding back-of-house robots, especially at the scale of Domino’s and Pizza Hut, would require pretty extensive testing. Dough, for example, is different from pizzeria to pizzeria, and not every dough plays well with robots.”

— Chris Albrecht, OttOmate

Philippe Goldman, the CEO of **Pazzi**, ran into a similar obstacle. With two pizzerias in Paris, Pazzi uses robots to cover the three Bs—building, baking and boxing the pies—and they need little help from their human overlords. But the dough proved tricky, Goldman explained in a webinar hosted by OttOmate last November. “Dough always changes,” he said. “It’s not a rigid product. We have two restaurants and follow the same process, but the dough doesn’t have the same behavior at the two restaurants. The best way to handle that is to have clever robots that can adapt to the behavior of the dough. We use computer vision to understand dough behavior and adapt the way the robot is going to press and deal with the dough.”

“We spent two years developing the [pizza making] machine with a team of 26 ex-SpaceX engineers. The SpaceX ethos is to fail fast and discover the most difficult challenges as soon as possible.”

— Benson Tsai, Stellar Pizza

Robots in the Kitchen

Of course, not all pizza robots need to do everything a person can do. The xPizzaCube, a countertop system from San Francisco-based **xRobotics**, spreads sauce, sprinkles cheese and adds pepperoni slices on premade crusts for pies between 8” and 16”. These compact machines can be installed in any kitchen to reduce labor and fire up pepperoni pies in a hurry, according to Alena Tikhova, xRobotics’ chief marketing officer. “This is literally for everybody in the market,” Tikhova said in the OttOmate webinar. “The horizontal space in any pizza shop is very limited. If you don’t have a lot of space...you might want to look at something that uses vertical space instead of horizontal space. Once you bring in any new piece of equipment, you have to think of exactly where you’re going to place it and having enough space for your pizza maker to pass by—all of those little things that are actually not little. They’re very important.”

Tikhova, a former pizzeria operator herself, says a countertop robot can save time for any busy shop. “If you [think about] where your people are spending most of their time, I guarantee it’s not slapping the dough or bringing in ingredients,” she said. “It would be things like putting on sauce, cheese and pepperoni. Concentrate on those first and automate them, and you’ll see massive

Chatbots and Food Runners

Automation isn’t limited to making pies. Domino’s has tested robotic delivery, and several foodservice automation companies have surfaced with their own tech to get food to a customer’s doorstep. **Marco’s Pizza** is testing voice-to-text technology for order taking and a pizza making robot to improve efficiency and accuracy at its high-traffic stores. And California chain **Mountain Mike’s Pizza** has been working with San Diego-based **It’s Your AI** to test a chatbot that can take complicated orders over the phone as smoothly as a live person. That system is so convincing, says It’s Your AI founder Jay Lacy, that one customer showed up in person at a Mountain Mike’s store and asked to meet “Shea,” the female chatbot who had previously taken his phone order. “Instead of using a computer-generated voice, we have a voice-over artist, a real person, recording everything,” Lacy says. “And when we’re ready to offer services in, say, Mississippi, we’ll add a Southern accent. A Brooklyn accent, Ivy League accent, whatever it is, we can spin it up in, like, 20 hours.”

No one’s likely to develop a crush on a robotic food runner, but you never know. In June, **Ledo Pizza**, a Maryland-based brand, debuted its newest team member—dubbed Ledo Bot 9000—at a location in West Springfield. Manufactured by **Bear Robotics**, the Ledo Bot runs carryout orders to the counter so that flesh-and-blood team members can focus on other tasks and take better care of customers. “With Ledo Bot running carryout orders from the kitchen to the counter, there won’t be any barriers between the guest and employee during this repetitive task,” says Ledo Pizza president Jamie Beall, adding that the robot will be implemented in additional stores soon.

Just don’t expect the top chains to use pizza making robots right away. For starters, they’ll have to overcome the same problems Pazzi and Stellar Pizza encountered—but on a much larger scale. “Adding back-of-house robots, especially at the scale of Domino’s and Pizza Hut, would require pretty extensive testing,” Albrecht says. “Dough, for example, is different from pizzeria to pizzeria, and not every dough plays well with robots. Automation needs to be attuned to particular dough types to prevent tearing and other mishaps.”

And there’s no reason to worry that robots will nudge talented pizzaioli out of the kitchen, Albrecht says. “Pizza robots aren’t meant for every pizzeria. Robots are best suited for high-volume locations where people might not care as much about getting an artisanal pizza. If I’m stuck at an airport at 11 a.m. after a series of delays and all the restaurants are closed, that vending machine pizza is going to taste pretty good.”

