

**Deloitte TECHTalks | EPISODE 20 | High Tech Restaurants***With [Ed Lee](#), Managing Director, Deloitte Consulting LLP, Restaurant Strategy & Growth*

**Raquel Buscaino:** Welcome to Deloitte TECHTalks. I'm your host, Raquel Buscaino and I lead Deloitte's Novel and Exponential Technologies Team, where we sense and make sense of emerging tech.

On today's episode, we're going to be taking a deep dive into the world of restaurants and specifically high-tech restaurants at that. We'll chat through some of the key challenges facing restaurants today, why they're increasingly incorporating more tech from self-service ordering kiosks to food prep robots, and what they can do to stay competitive in an ever-changing world.

And I'm thrilled to be joined by Ed Lee, a Managing Director in Deloitte Consulting LLP who focuses on strategy and growth topics in the restaurant industry. Ed, welcome to the podcast. I've just been really looking forward to this episode.

**Ed Lee:** Yeah, so am I. I'm really happy to be here. Thank you very much.

**Raquel Buscaino:** Today's episode is all about high-tech restaurants. But before we dive even into the tech part of this, maybe we can just talk about restaurants in general first. What are some of the key challenges facing the restaurant business today? And what are they doing about it?

**Ed Lee:** So if you look at a restaurant's quarterly filings and what CEOs are saying online, as well as here at Deloitte, we've also been talking to restaurant executives and understanding what's on their minds [[Deloitte Restaurants Survey](#)], we're seeing five key themes emerge here. First one is real pressure to grow traffic and to grow same-store sales. And everybody is focused very tightly on how we can increase traffic, how we can get more people in the store, how we get every store growing as much as it possibly can.

I think, related to that, and challenging that, is high input costs. So whether that's direct materials or whether that's labor costs, restaurants are trying to be able to deal with those costs but not elevate prices to the point where you know they're losing traffic. So those two things are quite a bit in tension.

There's a third area which we're going to, I'm sure, dive into a bit more, which is the increasing pressure to offer really good digital experience from marketing, through ordering, and payment and loyalty programs and this kind of thing. It's become a bit of a basis of competition in the restaurant industry to make that experience in the digital space as great as it can be. And so that's a really important thing.

So that's the first three, and then related to that, though, and in tension with that is the IT costs are really accelerating in the restaurant business. If you wanted to open a pizza store in the eighties, you had a phone bill, and that was kind of it as far as you're your cost to engage with your customers. Today, that's much more complicated.

And then, finally, another method to grow is growing units, like, okay, "I need to open more stores," whether that's in the U.S. for American companies or internationally. And that's hard: finding good

locations, finding good franchisees to do that. So a lot of struggle out there, certainly opportunity for those who are doing well but those are the kinds of things that we're hearing from executives today.

**Raquel Buscaino:** You mentioned struggle is opportunity. That's a lot of opportunity right there, I mean...

**Ed Lee:** It sure is, a lot of opportunity.

**Raquel Buscaino:** Yeah, trying to figure out more people, more units, high input costs, high IT costs, and then the digital experiences piece is almost changing consumer preferences in a way, where now they have to adapt to this digital age.

**Ed Lee:** It really is. And you know when we here at Deloitte, talk to consumers because we've done some surveys of our own [[Deloitte Restaurants Survey](#)], you know the themes that kind of emerges is all about convenience and particularly with younger consumers, they expect everything to be as easy as their phone.

And if you think about in your own life, when you need to order something digitally, or you're listening to your, music apps or whatever they are, it's one click away. And in restaurant land you have to sort of try to marry that ease of use from a digital perspective with the physical world as well. And so that's a struggle, but also an opportunity. As restaurant companies get that right, if they can figure out a way to make that a frictionless experience, so that I can very easily figure out what to order, maybe even the technology is helping me to order, offering me relevant suggestions, bringing forward my favorites, bringing forward relevant deals and promotions that might entice me to order more. These kinds of things actually can end up helping to grow sales.

Payment also making it super easy to pay. As you go in your own lives through a drive-thru restaurant there's a lot of steps: you stop, you order, you stop, you pay. There's a lot of steps you have to go through. If restaurants can streamline that experience such that it's much easier, not only is the customer happier because it's just easier, but also it speeds the service and the restaurants, if they can get more cars to the drive-thru a day, or what have you, they can actually grow sales. I think if restaurant companies are sort of setting that to one side and saying, "Well, I built an app, and that's fine," they might be missing an opportunity to really have a great experience that brings customers in and enables them to serve them much more quickly.

**Raquel Buscaino:** You want to remove the friction digitally. You want to remove the friction physically, and you certainly want to remove the friction between the physical and the digital because that's increasingly where it seems like restaurants are needing to focus even more on. Is this the case for quick service, and also casual dining?

**Ed Lee:** It certainly is. Think about in your own life making a reservation at a casual dining restaurant or a fine dining restaurant, that, in the past would involve you waiting for the restaurant to open, and calling, and then waiting for the phone ring 15 times until somebody picked it up. Now, there's a huge variety of restaurant apps where you can make reservations, the suggestions they give you. So that whole bit is easier.

Going into a casual dining chain, you'll find sometimes kiosks on the table that make it a little bit easier to order or pay or can entertain you during your dining experience. Often the servers will have an iPad that they're wandering around with, and we at Deloitte are thinking about how this could even be enhanced in the future, where the iPad picks up who you are, as you check into the restaurant, and then the server is ready with your past orders and your favorites, and what kind of suggestions you might be willing to accept, and that's just a much better experience for you as well.

**Raquel Buscaino:** It's interesting because kiosks it felt like weren't a thing just a few years ago, and now they're everywhere. And I know in my life, I started to use them increasingly more. Is there any consumer behavior impacts towards using kiosks? Do people like them more? Do they like them less? What's been the implication of that?

**Ed Lee:** Restaurant companies get a bunch of benefits from that, and what appears on the surface is potentially perceived as negative, but the reality is actually much different. What we see is really a different behavior from consumers. First, when you're coming up to a kiosk, our observation is customers take a little bit more time, they're looking through the menu a little bit more thoroughly. They may be taking their time to customize their orders in a different way. They don't feel pressure because there isn't a bunch of people standing behind them.

And also our observations in the marketplace and in our experience is that those guest checks tend to be a little higher coming from kiosks. And so as a restaurant company, you're getting the benefit of people ordering more. As a customer, you're getting the benefit of having a much more relaxed ordering experience, that you can very easily customize to your specific desires, and it ends up being a win-win.

**Raquel Buscaino:** Wow! That's fascinating, especially about the pressure, because it is real, you know, when you've got a long line waiting behind you and you're just trying to get through you don't want to be the hold up. That's real.

**Ed Lee:** That's right. And you've also been in line behind somebody who seems like they're taking forever. And that's not great either. So I think this ends up, you know, reducing wait times, too, which is, which is great.

**Raquel Buscaino:** Well, so with so many of these different consumer preferences changing, I'd have to imagine that this also causes a whole suite of impacts to the operations on the back-end of the business itself. So how is the experience in the restaurant itself, in the kitchen, in the backroom changing as a result? And what are some of those implications?

**Ed Lee:** It is changing now, and I think it's going to change a lot more moving forward. We're just starting to see - a lot of these technology investments have been much more on the customer facing side of the experience where, guests are demanding convenience. Convenience has been a big factor in restaurants and retails for a long time, at least that's what we've observed here at Deloitte.

And so those kinds of things just now really making their way into the kitchen. The first thing that many people in the industry are talking about would be things like robots. I've got this robot that can cook

something, or what have you. And in the end, those are helpful. I mean, any kind of automation that you can have to automate repetitive tasks in the kitchen is terrific. Folks who work in restaurants don't generally love to slice onions all day, but if you could have something, in an automated way that's doing that, that's a real benefit for everybody.

But that kind of capital investment in restaurants isn't what we at Deloitte are seeing as some of the first real investments. Instead, what we're seeing is much more around analytics and using data to streamline operations in the kitchen. So to the extent that the restaurant could be collecting data on what are the past orders on a Tuesday afternoon in that restaurant, and what have the last 10 cars in the drive-thru ordered? And what's the traffic out on the street? And what's the calendar in this town? Every Tuesday there's a soccer tournament, this kind of thing. And the weather: "Okay, it's a hot day out," boy, if we were to suggest ice cream with every order, we actually might get a much higher take up rate than at other times.

So leveraging data and analytics, and then having that feed into any number of operations in the kitchen, everything from scheduling, so I could do a better job of predicting how many people will I need in the kitchen to work on Tuesday morning, given, what I see is happening in the data. Which products to prep for the next shift because I see this sort of volume coming? What should I cook in the next five minutes because I'm seeing the consumption coming through and the data is telling me this? And so leveraging that technology just makes it a lot easier to work in the kitchen.

Working in a kitchen, particularly in a quick service restaurant, is really taxing, and there's high cognitive load, and you're trying to figure out all of the different pieces that are happening in the restaurant. What should I do next? What should I do after that? And so thinking that through and enabling the technology to help you make those decisions in a much more timely way can, we've seen, make it a little bit more pleasant.

**Raquel Buscaino:** That totally makes sense. And I also hear your point, too, on software AI being first to be implemented, and then robotics, hardware being a secondary piece of this.

Well, this is an exciting future that we're painting. A future where, if the weather changes, we know that we need more ice cream, or if there's a soccer game, we can increase food prep, right? All that exciting stuff. Why aren't restaurants doing this right now? So what's the implementation challenges, the adoption challenges that they're facing and trying to upgrade their experience to realize these benefits?

**Ed Lee:** Restaurant companies can be overwhelmed by the amount of choices that they have for their investments. In our experience here at Deloitte when we talk to restaurant executives, we will sit down with a team of executives at a restaurant and they'll come back to us and say, look, there's dozens of things we could be doing. How do we think through what the priorities are? How do we make sure that we are doing the things that are going to make the biggest impact on our consumers and spend money in places that are going to have the best possible outcome for us from a return on those investments. And those are tricky questions, right?

That's one, is how do I make choices? And then the second one is really getting their employee base, whether that's, you know, at the headquarters or in the restaurant to be educated on technology, to be

trained on technology, to feel like it's something that's going to drive their benefit. A lot of restaurant companies are franchised. So none of this works without getting the franchisees to buy in and drive that adoption.

And then once you make choices about what you're going to implement, then implementation has its own challenges. If you imagine a world where the machine is telling the person in the restaurant, "Okay, you should cook this many now, okay?" And the person in the restaurant says, "Well, you know, I worked here, for a couple of years, and I kind of know, how many I should prep for this shift on a weekend morning."

That may be true, but what we're finding is that often the machine actually does know more because it's processing more data. And so driving that adoption in the kitchen is tricky. What we've seen here in Deloitte in the restaurant business, but we're also seeing in other in other industries is, if you enable the human to have a little bit more control over those suggestions coming from the technology the adoption is much higher. And then look over time, we'll see from our experience that the technology is more and more trusted as it works out. These are difficult challenges, and we're learning more all the time at Deloitte and certainly the industry is learning more all the time as we implement these technologies in this space.

**Raquel Buscaino:** You know, one of the other things I was wondering is the restaurant industry typically has pretty high turnover. And so when it comes to embracing new technologies. How does that play into it? Is it harder to bring people on in that type of industry where there is turnover to get them to use new tools? Is it something where maybe AR or VR could be used to help train just given the high turnover? How are restaurants thinking about that?

**Ed Lee:** The restaurant industry can be a high turnover industry. One of the options we're seeing restaurant companies announce or begin to use, is leveraging AI to help with that training and/or to help with problem solving in the moment.

So you can imagine a world in which you take all of the instructions for all of the equipment in a restaurant, and pour that into a large language model. Or you take all of the manuals from your equipment or the OSHA [Occupational Safety and Health Administration] guidelines, pour it all in, and then you build an assistant for the restaurant. And so if the person in the restaurant has a question, "Okay, I'm seeing this error code on this piece of equipment, what should I do?" It's just answering it. You don't have to go pull out the manual or a 3-ring binder that's in a dusty backroom someplace and nobody knows where it is. You just ask. And the AI can tell you. "Okay, well, here are the steps that you should take now to start troubleshooting." And these are great because there's only more technology and equipment and everything else coming into restaurants. It's only going to get harder and harder. And leveraging AI to make that transition a little bit easier for the people in the restaurant to get up to speed and/or get questions answered quickly, is something that we'll certainly going to be seeing.

Fine dining restaurants are sometimes a lot more complicated. There's a lot more stuff back there, because the menus are much more broad. How do we allow the technology to help us manage all of those moving pieces in a much more effective and efficient way?

**Raquel Buscaino:** At the end of the day, it doesn't matter to me if someone has a new coworker or this AI is a new coworker, if you're there to help me solve a problem in a pinch. Well, that's something that I want, right? So phrasing it in that way, much more inclined for the new coworker in the building.

What do you think are some of the main industry imperatives for restaurants, and we've dabbled in this a little bit, too? But what are you really excited about for the future? Not just in the next couple years, but even as we progress further out in the next 5, 10 years in your industry?

**Ed Lee:** As we look ahead, we've touched on all of these here today. There are a few things that restaurant companies could do now to enable them to achieve success in the future, that we just discussed.

And the first thing is to think about new growth horizons. You're trying to drive sales in your current stores. Those are good. And you're trying to figure out how I can expand in new stores and new frontiers. But thinking through that, what new menu items might I be thinking about as consumer tastes change, moving forward? What kinds of stores should I be opening? Since COVID, there's been a big shift that we're seeing at Deloitte in the industry towards off-premise consumption? So what implications might that have on me as a restaurant company to think about what my store should look like moving forward? Maybe smaller dining rooms, maybe more ways to pick up or get orders delivered. So that, I think, is, a big change coming.

Certainly, this convenience discussion that we had earlier just making it easy. If we say the expectation in the future is everything should be as easy as my phone, let's think through that entire journey that the guest goes through and find those opportunities to reduce friction at all those friction points as you go through.

We mentioned efficiency in the back room and in the kitchen, and looking at AI and robotics to think about how we revolutionize kitchens is a big area and related to that is, how can we be predictive? Finding opportunities to be more predictive, I think is fantastic and well worth the time and energy to do so because you avoid problems and other issues that way.

And then, finally, I think the thinking about that workforce, okay. If in a world where digital and technology and AI are playing like an outsized role in the restaurant industry, different skills, different understanding, different competencies may be required. So all of these changes that we're seeing that we've talked about today have implications on what restaurant companies should be doing and how they should be thinking about driving their business forward. We're going to see more and more of that as we move forward.

**Raquel Buscaino:** It's a bright future, one with efficiency, convenience, growth, and a workforce that meets the needs of that future. It's very exciting Ed. Thank you so much for being on the podcast this is such a great discussion.

**Ed Lee:** And thank you for having me, and I always like talking about these topics. So thanks very much.

**Raquel Buscaino:** Well to all our Tech Savvy listeners if you enjoyed this episode, please share and subscribe. And if you'd like to learn more about high tech restaurants, you can follow myself and Ed to stay up to date. Our socials are listed in the episode description. Thanks for tuning in, and I'll see you on our next episode. Until then, stay savvy.

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