

AI Meets the Drive-Thru:

Taco Bell's Journey to Automated Customer Service



Customer

Taco Bell is a culture-centric, lifestyle brand that provides craveable, affordable Mexican-inspired food with bold flavours. Taco Bell and its franchise organizations operate 8,500+ restaurants in over 32 countries, serving millions of fans around the globe each week.



Challenge

Taco Bell was looking for impactful AI initiatives that enhance team member and customer experience, operational efficiency and business performance.

Given that, for most restaurants in the U.S., most interactions with customers happen at the drive-thru, it was critically important that Taco Bell continued modernizing restaurant operations, so they looked for new, innovative ways to optimize back of house operations with technology.

To meet these demands, Taco Bell sought an AI-driven voice ordering solution that could help improve the customer experience, reduce friction in drive-thru interactions, and empower team members to focus on customers.

By streamlining certain tasks, the Taco Bell team was able to focus their attention on the customer, improving and enhancing the customer journey experience overall.



Innovation is ingrained in our DNA at Taco Bell, and we view Voice AI as a means to improve the team member and consumer experiences. Tapping into AI gives us the ability to ease team members' workloads, freeing them to focus on front-of-house hospitality. It also enables us to unlock new and meaningful ways to engage with our customers."

Dane Mathews

Chief Digital & Technology Officer, Taco Bell

Solution

Value Driven Implementation

For Taco Bell's initial exploration in voice automation, they selected Omilia's Voice AI Solution for its specialization in voice automation solutions tailored to customer service environments.

Taco Bell deployed and tested the Voice AI Solution with Omilia. This proof of concept was then rolled out at one restaurant in Irvine, CA, followed by 4 more pilot locations in 2023, where Taco Bell continually measured performance metrics and gathered feedback from restaurant teams and franchisees, to ensure the Voice AI Solution was performing as expected.

Omilia's Voice AI Solution stays up to date with menu innovations and new product names as they roll out and is continually fine tuning the engagement between the customer and the Voice AI Solution.

The customer and Voice AI conversation flows are constantly being optimized, and new capabilities are being added to personalize the customer experience.

Taco Bell took a value driven approach to implementing and scaling Voice AI to continuously help improve the experience.

Operationalize the Voice AI Solution - To operationalize the Voice AI Solution, Taco Bell and Omilia aligned on a strategy with a clear business case, designed governance and communication plans, and developed a change management plan in close collaboration with franchisees to overcome any adoption hurdles.



Maintenance, Enhancements & Testing Strategy -

Taco Bell prioritizes and plans feature enhancements based on feedback from team members, franchisees, corporate partners and customers, as well as business goals, and conducts User Acceptance Testing to validate new features and enhancements.

Drive Continual Digital Innovation - Taco Bell is leveraging Generative AI to create a more enjoyable customer experience with a tool that better understands humor, slang, natural conversational cadence and certain frequently asked questions.

The Technology

Drive-thru ordering environments present unique challenges for voice recognition technology, as the Voice AI Solution must accurately interpret a wide variety of human accents, speech patterns, and vocabulary in real-time. This complexity is further amplified by background noise – from passing traffic to car engines – that can disrupt the Voice AI Solution's ability to process and respond accurately.

The Omilia Voice AI Solution provides:



Specialized Voice Models: Proprietary deep neural network powered Automatic Speech Recognition (ASR) provides zero-latency and context-sensitive speech-to-text.



Natural Language Understanding: The Voice AI Solution understands words and their intended meaning, providing contextual responses with high accuracy and minimal training input.



Noise Filtering: This model reduces and/or removes background noise from the isolated voice segments. By filtering out unwanted sounds like engines or side conversations, Noise Filtering ensures that the captured speech remains clear and intelligible, enabling the Voice AI Solution to focus on the customer's words alone.



Latency Removal: Voice is synchronous in real-time so the ability of the Voice AI Solution to listen, understand, and respond in real-time is key to a successful deployment. Delayed or out-of-context responses will lead to failed customer engagements.



Real-time Menu Adaptation: Different stores and regions have different menus, different levels of stock, and stock is influenced by specific limited time offers. The Voice AI Solution can adapt in real-time to different stores' menus, changing offers and stock levels to ensure orders are accurate and completed successfully.

Results

As of April 2026, the Omilia Voice AI Solution has been deployed in 890+ Taco Bell U.S. stores.

Customer First

Poorly functioning automated systems can frustrate customers and lead to negative experiences. Taco Bell recognized the importance of providing a seamless, human-like experience for customers, so Omilia's Voice AI Solution was meticulously tuned to provide clear, accurate responses, delivering a conversational experience that mirrors human interaction and improves the customer's ordering experience.

This not only improved customer satisfaction but also unlocked opportunities for sales lifts, as the Voice AI solution dynamically upsells products based on the customer's order.

Transaction time, from when a customer pulls up to the drive-thru speaker post to when they get their food, with Voice AI is on par or better than with a human.

Happy Employees

The Voice AI Solution has also eased the workload of team members, allowing them to focus on tasks that enrich customer satisfaction. By handling repetitive interactions, the Voice AI Solution empowers employees to prioritize quality service, creating a win-win outcome where customers enjoy a smoother experience, and employees can engage in more impactful roles.

Early indicators point to lower employee turnover at stores utilizing the Voice AI Solution when compared to stores that are not utilizing the Voice AI Solution, and total sales and transactions at stores utilizing the Voice AI Solution are on par or better than stores without the Voice AI Solution.

Hear more on how [Taco Bell is using AI voice to take orders at drive-thru.](#)

About Omilia

Omilia is a leading AI platform for customer service. Omilia owns and provides state-of-the-art technology in Conversational AI, enabling clients to improve their CX, shorten response times and reduce costs. In addition, the Omilia Cloud offering allows businesses to effortlessly identify, authenticate and serve customers with ready-to-go integrations, across any channel, by pre-built solutions.