Quick Service Restaurant (QSR) Use Case

Quick Service Restaurants (QSR) serve millions of people per day. Consumers come to QSR’s for value-oriented meals that are served quickly. QSR’s serve their customers “over-the-counter” (In-store) and through drive-through windows. In suburban locations, many QSR’s serve the majority of their customers through the drive-through window. However, in urban and central business district locations, most customers are served “over-the-counter.”

CountBOX offers a complete customer analysis solution for QSR’s using unobtrusive observations to provide actionable analyses and data for local and “home office” QSR’s. CountBOX’s system addresses who the QSR’s customers are, how long they stay in the restaurant and key operational metrics to improve operations.

CountBOX is one of the only consumer analysis companies to offer customer profiles at the local restaurant level using facial recognition technology. Using security cameras pointed at doors and cars or by installing facial recognition sensors, CountBOX provides QSR’s the following demographics on their local restaurant customers:

* Age category
* Gender
* Ethnicity
* Mood of the customers

This demographic data is invaluable in understanding who the customers are on a restaurant by restaurant basis and localizing menu offerings and promotions focused on customer groups that frequent the restaurants.

Using WIFI technology, CountBOX is able to determine how long customers stay in the restaurants and near-real time occupancy of the restaurant. CountBOX is able to provide QSR management:

* Dwell time reports showing average time spent in the restaurant by day part
* Occupancy by day part
* Near-real time occupancy to determine the number of customers currently in the store
* Queuing reports showing the length of time customer wait in line to be service within the QSR

CountBOX provides QSR’s key performance indicators based on customers and sales transactions. Total customer traffic for the QSR location is a key metric that provides insight into the actual total number of customers that the QSR serves. This number is developed by tying QSR POS data with in-restaurant door counts of customers entering and exiting the QSR. Shopper counting devices or sensors placed above the doors of the QSR provide the actual counts of customers – 24/7/365. CountBOX time stamps customers as they enter and exit the restaurant. Adding in-store customers with total drive-through transactions provides the total number of customers served by the QSR. Therefore, a distribution of the number of customers served by time period is developed for the store. A store manager may determine the number of customers served by half hour, hour, “4-hour shift” or the total day. Total customer measurement allows for the determination of “peak traffic hours” within a week. The manager is able to schedule enough staff to cover these key times to serve customers more quickly to improve customer satisfaction.

With the total customer served and POS data, QSR’s are able to determine another key metric - conversion rate or total transactions for the QSR divided by total customers served:

Conversion Rate = Total Transactions

Total Customers Served

Conversion rate provides the percentage of customers that purchased a food item(s). Conversely, the percentage of customers that do not buy is (1 – conversion rate). For an average QSR, the conversion rate should be high, usually 80% or more. However, there still will be some portion of the customers that do not make a purchase. Knowing the conversion rate allows the QSR chain the opportunity to do root cause analyses into why proportion customers do not purchase. Alleviating the causes of not purchasing will increase conversion and consequently sales.

Measuring total customers served allows the QSR to determine the value of each customer by calculating the dollars per customer metric.

Dollars per Customer = Total Sales

Total Customers Served

The dollars per customer metric is calculated on a time period such as a day, week, month or year. High “dollars per customer” reflects high conversion or high average meal ticket, while low “dollars per shopper” reflects low conversion and/or low average meal ticket.

In QSR’s, staffing levels have a direct impact on the length of time it takes to serve customers. Long wait times impact customer satisfaction ratings negatively. Poor customer satisfaction results in lower sales. Another key traffic-based metric can be calculated – the customers to staff ratio:

Customers to Staff = Total number of customers served

Staff present to serve customers

The customers to staff ratio may be calculated for different time periods, but the most useful measure is at an hourly level. In general, the lower the shopper to staff ratio, the more likely that shoppers will be served more quickly as enough staff will be available to wait on customers avoiding long lines.

Using the total customers served distribution for the week, peak traffic hours and the customers to staff ratio, the store manager is able to efficiently schedule staff to meet the demand of customers. Peak hours will vary by location and type of QSR.

These metrics help QSR managers and their leadership to improve operations leading to increased customer satisfaction and additional revenue at the QSR locations.