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Auburn University BOPIS Index Evaluation

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Contents

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Abstract

The "BOPIS Retailer Scorecard" was developed by a team under Dr. Bill Hardgrave with the purpose of testing the Omni-Channel claims of many retailers in the United States. The scorecard was developed to analyze a retailer's 'buy-online-pickup-in-store' (BOPIS) capabilities and compare their performance to other retailers in the industry. Retailers are judged across the three stages of a BOPIS order: online operations, communication between customer and retailer, and pickup process. The aggregated results for twenty (20) of the nation's largest retailers are also incorporated into this document to provide industry averages for comparative purposes.

Introduction

There are three stages to a BOPIS purchase: the Online stage, the Communication Stage, and the Pickup stage. The Online stage comes first, and it includes everything from navigating the retailer's website to making the final purchase. On the scorecard, there are nine (9) criteria within the Online classification which include inventory availability, search methods, and user experience. The second stage of a BOPIS purchase is the Communication stage, and it is focused on the emails and notifications that a customer receives after placing their order but before they visit the store to pick up their order. There are five (5) criteria on the scorecard under the Communication classification that are focused on email correspondence and order readiness. The final stage of a BOPIS purchase is the Pickup stage when a customer visits the store to retrieve their order. There are nine (9) criteria under the Pickup classification with a focus on pickup options, store layouts, and customer convenience. The following three sections will detail and explain each classification and its criteria.

Online

The Online Classification evaluates a retailer's inventory availability, search methods, and user experience. This section will explain each of the nine (9) criteria related to the Online stage of a BOPIS order and provide examples using Acme Retail.

Online Classification

Criteria
Online Inventory Count
Limits Placed on Online Orders
Accuracy of Online Inventory Count
Search by Store
Search by BOPIS
Number of Clicks until Checkout
Presence of Multiple Search Methods
Online Inventory = In-Store Inventory
In-Store Inventory = Online Inventory

Online Inventory Count

"Does the website display how many in-store items are available per SKU before check out?"

The first criterion evaluates whether or not the number of items available for any given SKU are displayed on the website before adding the item to the cart. The results for this criterion are determined by searching the retailer's website for information on in-store item counts. If the number of items for a given SKU is displayed on the website, then the retailer receives a "yes"; if a retailer does not have inventory information on the website, then they receive a "no". It is believed that if the omni-channel retailer has accurate knowledge of store inventory, then their website should display that information.

Example: A customer is browsing Acme Retail's website and they click on a pair of jeans that they are interested in. Upon examining the product page, the customer can see four pairs available at their local store. In this case, Acme Retail would receive a "yes" for Online Inventory Count.

> *This is a key success factor because in the world of omni-channel, the retailer's website acts as an extension of the store itself.*

Limits Placed on Online Orders

"Can you order all the items available at the store for a specific SKU?"

The second criterion determines whether or not there is a limit to the number of items per SKU that can be added to the cart. Some retailers place a limit on how many items can be added to the online cart, even if there are additional items available in the store. This is tested by adding all in-store inventory to the cart and inspecting whether or not the site allows you to proceed to checkout. If the website does enforce a cart limit, then the answer is "no"; if the website allows the user to add all available items to their cart, then the answer is "yes".

Example: A customer is looking for spark plugs on Acme Retail's website and they find the exact SKU that they need. According to the website, there are eight of these spark plugs in stock at their local store, but when the customer attempts to add all eight items to their cart, they are limited to six items. In this case, Acme Retail would receive a "no" for not allowing the customer to purchase all the available items for one SKU.

Accuracy of Online Inventory Count

"Is the inventory count displayed online accurate?"

After confirming that the retailer has an online inventory count, it must be determined whether or not the online inventory count agrees with the physical inventory count in the store. This is tested by visiting a store and selecting five (5) SKUs at random from five different departments / product categories. After the SKUs have been chosen, the shelves are searched to determine how many items per SKU are present in the store. Once the number of in-store items has been determined, an online search is conducted to determine how many items are available for pickup. If the online and in-store counts match for a given SKU, the retailer receives one (1) point; all five SKUs are tested, for a total score out of five. If the online and in-store counts do not match for a given SKU, then the retailer receives no points, with the total score still taken out of five. If they do not have an online inventory count, they receive a 0/5 score.

Example: A team of secret shoppers visits an Acme Retail store and goes to the kitchen appliance department, where they select a specific blender. Upon searching the shelves and surrounding area, the team determines that there are seven (7) of these blenders available for sale. The team will then search for that specific blender on Acme Retail's website and see how many are available for BOPIS at the same store. For each department that has the same number of items as stated on their website, they receive one point. The team of secret shoppers will repeat this process for four other departments, and if all of the on-shelf inventory is available for pickup in all five departments, then Acme Retail receives a score of 5 out of 5.

Search by Store

"Can you search for availability by store before adding to cart?"

Preliminary research revealed that numerous retailers required shoppers to add items to their cart before selecting a store, only to see that the item was labeled "unavailable" at that location once a store was selected. Ideally, retailers will allow customers to search by store prior to adding items to their cart in order to avoid wasting customers' time. This was tested by visiting the retailer's website and determining whether or not a store could be selected before searching for products and adding items to the shopping cart. If the website does allow users to select a store before searching for items, the retailer receive a "yes"; if the website does not allow users to select a store before searching for items, the retailer receives a "no".

Example: A customer wants to see which storage containers are available for pickup at their local Acme Retail store, and before beginning their search, they are given the option to select their preferred store so that the appropriate inventory can be displayed. In this case, Acme retail would receive a "yes" for search by store capabilities.

Search by BOPIS

"Can you set the search parameters to 'items available for pickup' before generating search results?"

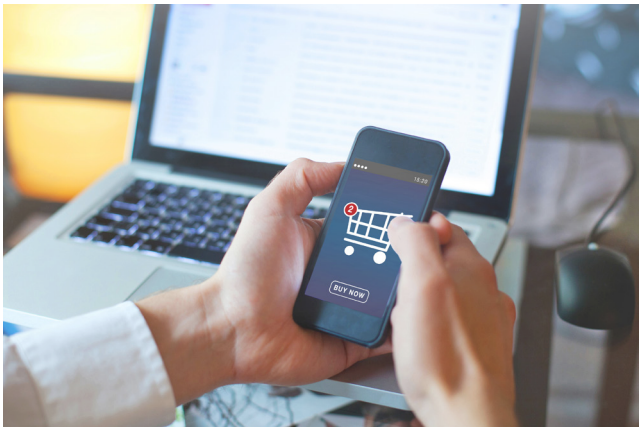
This is meant to convey whether or not customers are able to search specifically for items available for pickup. Preliminary research revealed that several retailers did not allow online shoppers to filter their search for items available for pickup. As a result, shoppers were not informed of unavailability until they attempted to add the item to their cart or until they attempted to check out. This feature was tested by visiting the retailer's website and determining whether or not users could select 'items available for pickup' before searching. If the website does allow users to filter for 'items available for pickup' before searching, the retailer receives a "yes"; if the website does not allow users to filter for 'items available for pickup' before searching, the retailer receives a "no".

Example: A customer is eager to play a new video game, so they go to Acme Retail's website to see if it is available. Before beginning their search, the customer is given the option to search for items "available for pickup today" so that they can pick up the game from their local store as soon as possible. In this case, Acme retail would receive a "yes" for search by store capabilities.

Number of Clicks Until Checkout

"How many clicks does it take to get from first clicking an item to checkout?"

Preliminary research revealed that the average number of clicks from first clicking on an item to check-out on a retailer's website is five (5) clicks. It is ideal for there to be as few clicks as possible between initial item selection and checkout. This is tested by selecting an item at random on the retailer's website and counting the number of clicks needed to move from initial item selection all the way to entering payment information checkout.



Example: A customer is browsing Acme Retail's website and they click on a dog collar that they like, resulting in the first click. The second click comes when the customer hits the 'add to cart' button. The third click comes when the customer is prompted to 'continue shopping' or 'go to cart'. After choosing the 'go to cart' option, the customer is asked to 'sign in', 'create an account', or 'continue as guest', resulting in click number four. After the user decides to 'continue as guest', the user is able to click the 'checkout' button for a grand total of five clicks. In this case, Acme Retail would receive a value of five (5) for their score.

Presence of Multiple Search Methods

"Do customers have more than one way to search for items in the mobile app?"

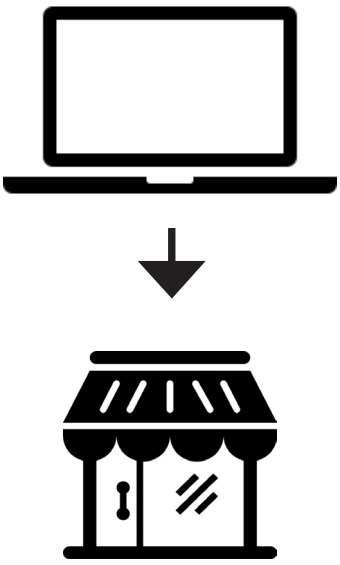
According to Retail Dive, 33% of customers prefer to purchase items through the retailer's mobile app instead of through the retailer's website on a desktop.[1] It is therefore ideal for a retailer's mobile app to have multiple search methods to cater to their customer base. There are three general search methods: standard search, visual search, and scan search. Standard search includes text entry and talk-to-text, visual search includes taking a picture or uploading a picture to the mobile app, and scan search includes scanning a barcode or QR code on a physical product. The test for multiple search methods is conducted by downloading the retailer's mobile app and determining which search functions are available. If the retailer's mobile app has two or more search methods, they receive a "yes"; if the retailer's mobile app only has one search method, they receive a "no".

Example: A customer is using Acme Retail's mobile app to compare prices for a pair of jeans they found in a different store. After an unsuccessful text search, the customer scans the jeans' barcode with the Acme Retail app and discovers that Acme Retail's price is lower than the other store's price. In this case, Acme retail would receive a "yes" for having more than one search method within their mobile application.

[1] O'Shea, Dan. "Study: 57% of Shoppers Use Retailer Mobile Apps in-Store | Retail Dive." Retail Dive, Industry Dive, 8 Jan. 2019, https://www.retaildive.com/news/study-57-of-shoppers-use-retailer-mobile-

Online Inventory = In-Store Inventory

"Are all the SKUs marked 'available for pickup' online represented in store?"

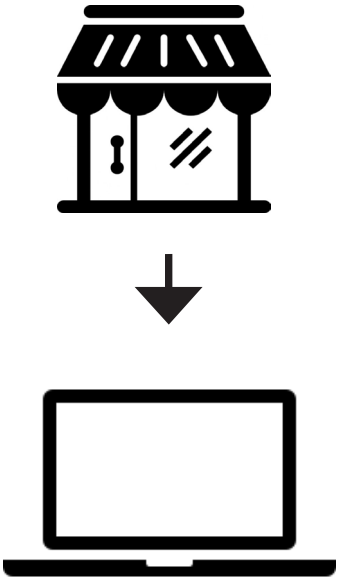


The purpose of this metric is to determine whether or not all the SKUs from a specific sub-category marked as "available for pickup" online are seen on the shelf at the store. This criterion is tested by selecting a specific sub-category on the retailer's website and investigating whether or not all of the SKUs within that sub-category are present on the retailer's physical shelves. For example, the path "Electronics & Office > Portable Audio > Bluetooth Headphones"on the retailer's website results in four (4) different SKUs related to Bluetooth Headphones that are "available for pickup" at the local store. Upon visiting the store and searching for these four (4) SKUs in the Bluetooth Headphones section, it turns out that only three (3) of these SKUs are available on store shelves. Retailers receive a percentage based on the ratio of SKUs listed on the website as available for pickup and SKUs present in the physical stores.

Example: Since four (4) SKUs are listed on the website as "available for pickup" but only three (3) SKUs can be found in the physical store, the retailer receives a score of 75%(3/4).

In-Store Inventory = Online Inventory

"Are all of the SKUs found in the store also marked as 'available for pickup' online?"



This criterion is essentially the inverse of the preceding metric, and the purpose is to determine if all of the SKUs present on store shelves are also available for pickup on the retailer's website. A sub-category of products is selected (ex. Home & Kitchen > Cooking Utensils) and the store shelves are searched for all SKUs that fit into that sub-category. The total number of SKUs found in the store is then compared to the number of SKUs available online for pickup at that particular location. For example, nine (9) SKUs are found in the Cooking Utensils section of the store but only six (6) SKUs are marked as "available for pickup" on the retailer's website. Retailers receive a percentage based on the ratio of SKUs present in the physical stores and SKUs listed on the website as available for pickup.

Example: Since nine (9) SKUs are found on store shelves but only six (6) SKUs are listed as "available for pickup" online, the retailer receives a score of 67% (6/9).

Communication

The Communication Classification evaluates a retailer's ability to communicate necessary order information to the customer in a clear and efficient manner.

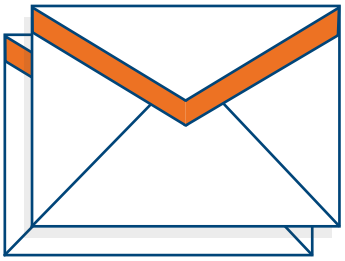
Communication Classification

Criteria
Number of Order Related Emails
Receipt in Confirmation Email
Pickup Instructions
"Order Ready" Notification
Order Ready in Relevant Timeframe

Number of Order Related Emails

"How many emails does a customer receive related to their order?"

This criterion addresses the number of order related emails that a customer receives for a single online order. For example, a customer may receive an automated confirmation email that confirms their order has been placed, another email that includes their receipt, and a final email that says their order is ready for pickup. This is tested by placing an online order with a retailer and counting the number of emails received specifically for that order.



Example: A customer places a BOPIS order through Acme Retail's website and immediately receives a confirmation email that includes the receipt. Two hours later, the customer receives an email saying that their order is ready for pickup. In this case, Acme Retail would score a two (2) because of the two emails received by the customer related to their BOPIS order.

Receipt in Confirmation Email

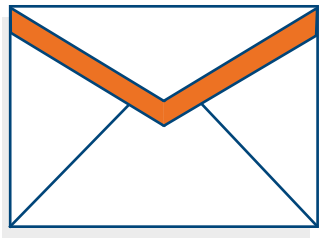
"Does the confirmation email include a receipt for online orders?"

Retailers may choose to include the receipt in the confirmation email or send a separate email containing the order receipt. If a receipt is included in the initial confirmation email, then the retailer receives a "yes"; if a receipt is not included in the initial confirmation email, then the retailer receives a "no".

Example: A customer places a BOPIS order through Acme Retail's website and immediately receives a confirmation email that communicates that their order has been received. However, the receipt for the order is sent in a secondary, separate email because the retailer must confirm that all of the ordered items are available. In this case, Acme Retail would receive a "no".

Pickup Instructions

"Do any of the order related emails include pickup instructions?"



Providing written directions for customers to reference when picking up their online order can help eliminate confusion and expedite the pickup process, especially for retailers who have multiple pickup methods. This is tested by examining the confirmation email (or other order related emails) for pickup instructions. If a retailer provides pickup instructions in an email, the retailer receive a "yes"; if a retailer does not provide pickup instructions in an email, the retailer receives a "no".

Example: A customer places a BOPIS order through Acme Retail's website and receives three separate emails related to their order: a confirmation email, an email that contains the receipt, and a notification email that the order is ready to be picked up. In the "order ready" notification, pickup instructions are listed in the body of the email. In this case, Acme Retail would receive a "yes" for including pickup instructions in their email communications with the customer.

"Order Ready" Notification

"Is a customer notified when their order is ready for pickup?"

This criterion addresses whether or not a notification is sent to customers when their order is ready for pickup. Because retailers need time to pick or prepare orders, there is typically a separate email or notification sent to customers to let them know that their order is ready for pickup. However, retailers may set a specific time for the order to be picked up instead of sending a separate notification email (ex. "pickup any time after 4pm"). If a customer receives a separate notification that their order is ready, then a retailer receives a "yes"; if a customer does not receive a separate notification that their order is ready, then a retailer receives a "no".

Example: A customer places a BOPIS order through Acme Retail's website, and after receiving a confirmation email and receipt, the customer is notified via email and text message that their order is ready for pickup. In this case, Acme Retail would receive a "yes" for notifying the customer when their order was ready for pickup.

Order Ready in Relevant Timeframe

"Are orders ready for pickup within the allotted timeframe?"

When a customer places an online order, retailers tend to give estimates or a timeframe for when the customer's order will be ready for pickup; when an order is ready for pickup, a notification is sent to the customer. The accuracy of this estimate/timeframe is tested by recording the latest time that the order should be ready and comparing that to the time when a customer is notified that their order is ready. If the customer is notified that their order is ready within the relevant time frame, the retailer receives a "yes"; if a customer is notified after the relevant time frame, the retailer receives a "no".

Example: A customer places a BOPIS order through Acme Retail's website and immediately receives a confirmation email saying that her order will be available for pickup between 4:00 – 5:00 pm that afternoon. However, the customer does not receive an "order ready" notification until 5:30pm, which is past the original pickup window promised by the retailer. In this case, Acme Retail would receive a "no" for not having the order ready within the allotted timeframe.

Pickup

The Pickup Classification evaluates the manner in which a retailer caters to customer needs when picking up purchases.

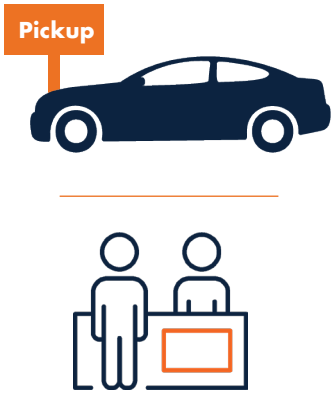
Pickup Classification

Criteria
Multiple Pickup Methods
Pickup at Any Hour
BOPIS-Specific Parking Spots
Signage for Pickup Area
Proximity of Pickup Area to Entrance
Dedicated BOPIS Area
Designated BOPIS Staff
Order Ready Upon Arrival
Time Taken to Collect

Multiple Pickup Methods

"Are there multiple ways for a customer to pick up their product (i.e. desk, curbside pickup)?"

Retailers may provide multiple methods for customers to pick up online orders at the store. For example, there may be a designated pickup station or a locker area inside the main entrance as well as a curbside pickup area outside of the store. This is tested by placing an online order and determining whether or not multiple pickup options are presented to the customer. If a retailer has more than one pickup method, the answer is "yes"; if a retailer only has one pickup option, then the answer is "no".

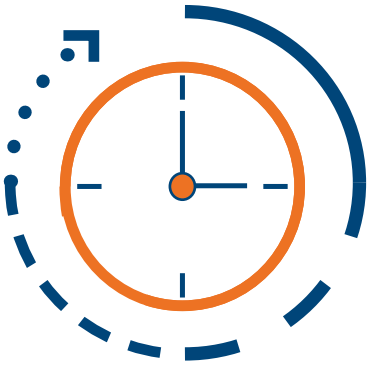


Example: A customer places a BOPIS order through Acme Retail's website, and after receiving a confirmation email and receipt, the customer is notified via email or text message that their order is ready for pickup. When the customer arrives at the store, they are given the option of parking in a designated spot where their order will be brought out or going inside of the store to the BOPIS desk to retrieve their order. In this case, Acme Retail would receive a "yes" because they gave the customer more than one way to pick up their product.

Pickup at Any Hour

"Can a customer pick up their order anytime during regular hours of operation?"

This criterion determines whether or not a retailer allows customers to pickup online orders any time within the store's regular operating hours. Some retailers may not allow pick-up within several hours of closing while other 24-hour retailers only permit pickups during certain timeframes (ex. 8am - 8pm). This is tested by determining the store's regular operating hours and cross checking them with the in-store pickup hours on the website. If a retailer allows customers to pickup their online orders anytime within normal hours of operation, they receive a "yes"; if a retailer does not allow customers to pickup orders during all operating hours, they receive a "no".

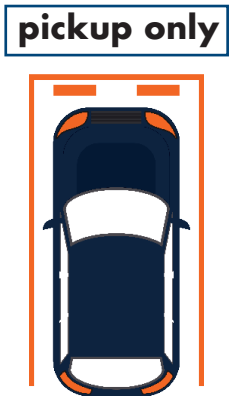


Example: A customer is preparing to place an order on Acme Retail's website that they plan to pickup on the way home from work that day, but when the customer goes to select a pickup time, they realize that online order pickups are not permitted past 5:00pm (even though the store is open until 9:00pm that same night). In this case, Acme Retail would receive a "no" for not allowing the customer to pick up their order during regular hours of operation.

BOPIS-Specific Parking Spots

"Are there designated parking spots for online order pickup?"

To minimize total pickup time for customers, retailers may provide designated parking spots for online order pickup. These spots may be used for more convenient parking close to the store entrance (when customers have to go inside to pick up their orders). This is tested by visiting stores and observing whether or not there are BOPIS-specific parking spots for customers. If there are parking spots, the retailer receives a "yes"; if there are not BOPIS-specific parking spots, the retailer receives a "no".

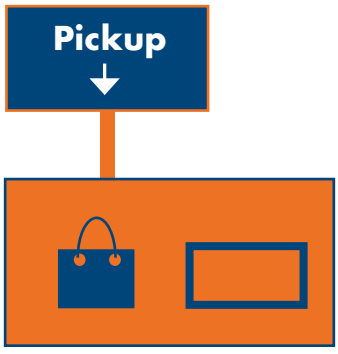


Example: A customer places a BOPIS order through Acme Retail's website, and after receiving a confirmation email and receipt, the customer is notified via email or text message that their order is ready for pickup. When the customer arrives at the store, there are designated parking spots for online order pickup. In this case, Acme Retail would receive a "yes" for providing BOPIS-specific parking spots for the customer.

Signage for Pickup Area

"Is there clear, visible signage directing customers to the pickup area inside the store?"

This criterion tests whether or not the retailer has appropriate signage for the pickup area inside the store. Regardless of where the pickup area is located in the store, there should be clear signage guiding customers to the pickup area visible from the entrance. This is tested by visiting stores and looking for obvious signage pointing to the pickup area. If there is clear, visible signage directing customers to the pickup area, the retailer receives a "yes"; if there is not clear, visible signage directing customers to the pickup area, the retailer receives a "no".

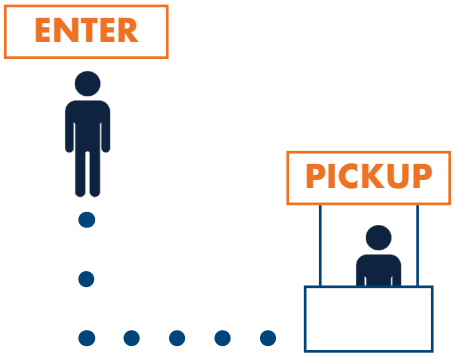


Example: A customer arrives at the Acme Retail store to pick up their online order, and upon entering the front entrance, they see a bright red arrow labeled "Online Order Pickup" pointing to the service desk on an adjacent wall. In this case, Acme Retail would receive a "yes" for having clear, visible signage directing customers to the pickup area inside the store.

Proximity of Pickup Area to Entrance

"Is the pickup area visible from the store entrance?"

This criterion is meant to determine whether or not the pickup area for online orders is visible upon entering the main entrance of the store. While BOPIS customers may make additional in-store purchases during their visit, the primary purpose of BOPIS is to maximize convenience for the customer. If the pickup area is visible upon entering the store, then the retailer receives a "yes"; if the pickup area is not visible from the main entrance of the store, then the retailer receives a "no".

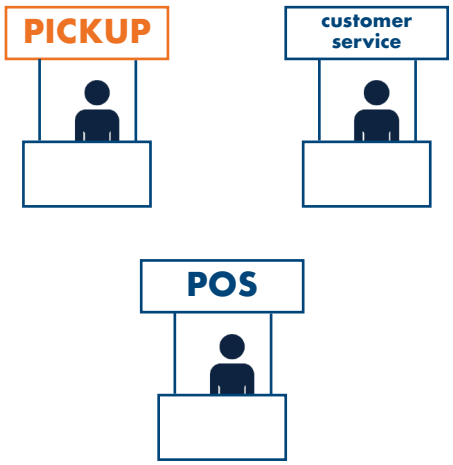


Example: A customer arrives at the Acme Retail store to pick up their online order, and upon entering the front entrance, they are able to clearly see the BOPIS desk immediately to the right. In this case, Acme Retail would receive a "yes" for positioning the BOPIS area so that it is visible from the front entrance.

Dedicated BOPIS Area

"Is there a dedicated pickup area for online orders, or is it combined with another department?"

This criterion addresses whether or not there is a dedicated, stand-alone pickup desk (or area) for online orders. Some retailers integrate their BOPIS operations with their returns or customer service areas, while other retailers designate independent areas within the store for online order pickup. Lines can become long and inefficient if BOPIS orders are serviced at the same place where returns are handled or customer service is located. Having a BOPIS-specific desk allows for a faster, easier pickup process for the customer. This is tested by visiting stores and observing whether or not there are dedicated BOPIS desks or areas. If there is a BOPIS-specific desk, the retailer receives a "yes"; if the BOPIS desk is shared with another department within the store, the retailer receives a "no".

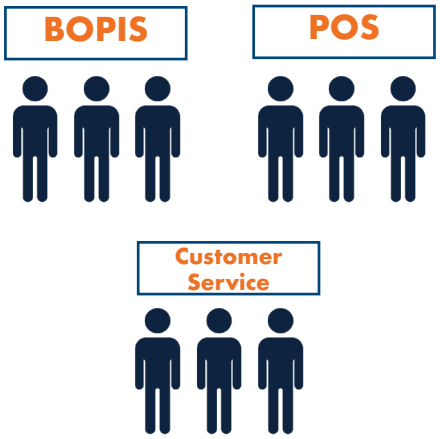


Example: A customer arrives at the Acme Retail store to pick up their online order, and upon approaching the pickup area, they realize that customer service and online order pickup share the same desk. Consequently, the customer has to join a line of other customers waiting to pick up their online orders or speak with customer service. In this case, Acme Retail would receive a "no" for not having a dedicated pickup area for online orders.

Designated BOPIS Staff

"Is there designated staff for BOPIS operations?"

This criterion determines whether or not there is dedicated staff for BOPIS operations. Employees preoccupied with checking out regular customers, handling returns, or providing customer service may not be able to assist BOPIS customers in a timely manner. In order to get customers in and out of the store as quickly as possible, it is ideal to have employees dedicated to servicing BOPIS orders. This is tested by visiting the store and observing employees stationed at BOPIS areas. If employees are solely responsible for servicing BOPIS orders, the retailer receives a "yes"; if employees have other responsibilities besides servicing BOPIS orders, the retailer receives a "no".



Example: A customer arrives at the Acme Retail store to pick up their online order, and upon approaching the pickup area, they are greeted by a store employee who is solely servicing BOPIS orders. After sharing their order information and personal identification, the employee retrieves the customer's online order in a timely fashion. In this case, Acme Retail would receive a "yes" for having dedicated staff for BOPIS operations.

Order Ready Upon Arrival

"Was the item ready for pickup upon arrival?"

This criterion is meant to determine if the retailer has the order available for the customer to pick up when they arrive at the pickup area. Most customers expect their BOPIS experience to be quick, so their order should be available at or around the pickup area so that the customer can get in and out of the store in a timely manner. If the customer's order is available at the pickup area, or if the order can be retrieved within 15 seconds*, then the retailer receives a "yes"; if the customer's order is not immediately available at the pickup area or cannot be retrieved within the 15-second timeframe, the retailer does not receive a positive score.

Example: A customer arrives at the Acme Retail store to pick up their online order. Upon arrival, the customer presents identification and receives their order within a 15 second timeframe. If the customer receives their order within the timeframe, ACME Retail would receive a "yes" for fulfilling the order in the appropriate timeframe.

**Secret Shoppers noticed that retailers who took longer than fifteen seconds to retrieve the order also took a significantly longer amount of time to complete the other areas of the pickup process.*

Time Taken to Collect

"How long does it take for customers to pick up their orders?"

This criterion is meant to determine how long it takes for a customer to pick up their online order. This is tested by recording how much time it takes to pick up an online order by starting a stopwatch upon entering the store and stopping the stopwatch upon exiting the store. The activities in between include finding the BOPIS area, initiating the pickup, retrieving the order, and completing the checkout process. The total time is reported for the retailer in seconds. Pickup times ranged between 45 seconds and 7 minutes; generally, if an employee retrieved the item within 15 seconds, the process was much faster.

Example: The stopwatch begins as a customer enters the Acme Retail store to retrieve their online order, and after spending 30 seconds trying to locate the BOPIS desk, they join the line for picking up an online order. 120 seconds later, the customer initiates the pickup process with the store employee at the BOPIS desk. 50 seconds later, the customer exits the store and stops the stopwatch. In this case, it took the customer 200 seconds to pick up their online order.

Industry Averages

From December 2019 to October 2020, a team from the RFID Lab evaluated twenty (20) national retailers using the BOPIS Retailer Scorecard. In order to conduct a baseline evaluation across the industry, the Online criteria were tested through the retailer's website via a browser instead of the retailer's mobile app because not all retailers support their own mobile app. Standard, cellular data was used to browse and search retailers' websites in order to avoid any advantages resulting from in-store Wi-Fi networks, and all orders were placed for same-day pickup.A variety of retailers were considered for the first round of evaluations: **Academy Sports + Outdoors, Ace Hardware, Advance Auto Parts, Belk, Best Buy, Dick's Sporting Goods, GameStop, Home Depot, Kohl's, Loft, Lowe's, lululemon, Michaels, Office Depot, Petco, PetSmart, Target, Ulta Beauty, Walmart, and World Market.**

Each retailer was evaluated independently, and the results were aggregated into an industry-wide scorecard. These averages were then used as industry benchmarks, allowing each retailer to be compared against the rest of the retail industry. For criteria where percentages are reported, read as, "30% of retailers provide an Online Inventory Count" or "11% of retailers provide Multiple Pickup Methods."

Industry Averages as of 10/16/2020

Online Classification

Online Inventory Count	35%
Limits Placed on Online Orders	75%
Accuracy of Online Inventory Count	13%
Search by Store	95%
Search by BOPIS	85%
Number of Clicks until Checkout	5.5
Presence of Multiple Search Methods	65%
Online Inventory = In-Store Inventory	70%
In-Store Inventory = Online Inventory	72%

Communication Classification

Number of Order Related Emails	2.95
Receipt in Confirmation Email	100%
Pickup Instructions	50%
"Order Ready" Notification	100%
Order Ready in Relevant Timeframe	90%

Pickup Classification

Multiple Pickup Methods	85%
Pickup at Any Hour	85%
BOPIS-Specific Parking Spots	10%
Signage for Pickup Area	35%
Proximity of Pickup Area to Entrance	80%
Dedicated BOPIS Area	30%
Designated BOPIS Staff	20%
Order Ready Upon Arrival	75%
Time Taken to Collect	02.47 min

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About the RFID Lab

The Auburn University RFID Lab is a research center that focuses on the business case and technical implementation of emerging technologies in the retail, aerospace, pharmaceutical, and manufacturing industries. Since its inception in 2005, the RFID Lab has conducted a series of seminal business value studies that have led to the adoption of RFID and IoT other technologies. Sponsors of the RFID Lab include: Amazon, Avery Dennison, Boeing, Checkpoint, Delta Air Lines, FedEx, GS1 US, Intel, Hanes Brands, Mojix, Nike, NXP, Sensormatic, SML, Target, Home Depot, Walmart, and Zebra Technologies. If you would like to connect with the Auburn University RFID Lab, please contact Justin Patton at rfidlab@auburn.edu or 334-734-4034.