A SPECIAL THANK YOU TO THE SHOP! RESEARCH COUNCIL for their contributions to the editorial and research of this white paper.

It is certainly not news that retail has been in a state of flux and the coming year will not be business as usual for retailers and brands. New challenges and changes will continue, and adaptability will be essential.

Part of that adaptability will be to understand how these changes in retail have affected the way consumers shop. With guidance from the Research Council, Shop! Environments Association has pulled together this white paper to discuss the various research metrics and techniques used to help understand the shopper during their path to purchase.

Note, in a post-COVID retail world, techniques will evolve and change, but the premise and purpose will always be the same—better understanding of your shopper will help inform strategic decisions to allow businesses to shape their personalized retail destiny.

This white paper is the second in a two-part series on shopper insights to help to build the ultimate shopping experience. In part one, The Brick-and-Mortar Retail Advantage: Why Shoppers Keep Coming Back to the Physical Store we looked at what drove people to shop in general and, more specifically, at brick and mortar stores.

In this white paper, we will look at how retailers and brands can use various research metrics and techniques to better understand the shopper during the four phases of the path to purchase. The metrics and techniques listed in the following pages are just a tip of an amazingly deep ice burg. We hope these will inspire you to ask questions and dig deeper into knowing your shopper.

Our goal at Shop! is to provide retailers and brands with information and insights to help them adapt to changes in shopper habits. We have identified Continuous Adaptation as one of six important trends impacting the future of retail. Inside this paper you will find case studies that illustrate how using research to understand the shopper can help create a more impactful retail environment.

If you have any questions about this or other Shop! white papers, feel free to reach out to me (tdittman@shopassociation.org) or Madeline Baumgartner, Director of Education & Research, at mbaumgartner@shopassociation.org.

Todd Dittman
Shop! Executive Director
INTRODUCTION

WE LEARNED IN THE SHOP! WHITE PAPER, *The Brick-and-Mortar Retail Advantage*, that consumers are likely to be in different shopping modes depending on why they are shopping and what they are shopping for:

- **Going Shopping** is about embarking on an enjoyable shopping expedition, exploring options, and looking for interesting and exciting opportunities and new news.
- **Doing the Shopping** is typically about buying things they have to buy (such as groceries), and wanting to minimize the time, effort and money they need to spend on this activity.

However, while it is an important factor that needs to be considered, the shopping mode is obviously only one determinant of purchasing behavior. The store is often filled with engaged consumers in the “going shopping mode,” already thinking about and pre-disposed to making purchases—a marketer’s dream come true. However, many shoppers are just doing shopping and will need more incentive to purchase non-planned items.

The shopper today is different than a couple of years ago and will be different from the shopper next year. Understanding the current shopper needs, context, mindset, and behavior during the path to purchase will be come more critical for brands and retailers in the coming year.

Research should be the first step in developing any retail innovation, design, remodel, or in-store marketing materials. Research yields insights into shopper behavior, and reveals the strengths and weaknesses in a brand or store’s customer experience. The key to understanding the shopper is knowing which metric to track at each phase along the path to purchase.

Not only is it important to define the key metrics, it is also important to use the right tool to track that metric. Research data should be another tool in the decision making process. And shopper research is just one piece of the overall brand marketing puzzle.

Since the early 1960s, marketers and their partners have had the insight to know that they need to understand the behaviors and preferences of shoppers in order to affect their purchase decisions throughout the path to purchase. Shop! has broken down that path into continuous cycle of four phases: Pre-Store, To-Store, In-Store and Post-Store.

**Pre-Store** *(explore, attraction, action)*

The pre-store phase is mainly characterized by exploration, attraction, and action. This phase can be websites, leaflets delivered to the consumers doorstep, or the consumers’ mobile phone. It is important in this phase is to understand what attracts the consumer and triggers their purchase behavior.

**To-Store** *(information on the move, interest, visit)*

The to-store phase covers the actual trip to the store. It is important to understand what attracts the consumer’s attention while they are on the go and the physical paths they take to the store.

**In-Store** *(conversation, temptation, inspiration)*

When the shopper is in the store, they most likely have an intention to buy. At this phase, it is important to understand how to give inspiration and create conversion by using the retail environment and in-store marketing materials.

**Post-Store** *(relation, share, experience)*

In this final phase, it is important to understand what shoppers think after shopping and go back home. Do they have a good feeling about your store? Are they satisfied with the product? If so, are they sharing it with others? And most importantly, how do you maintain the relation with the shopper?

In the following pages, you will see many research metrics and techniques that are applicable to multiple phases along the path to purchase. The key to determining the technique to use is based on the metric needed to answer the key business questions. As retailers and brands embrace continuous adaptation to meet the evolving needs of their customers, they must be willing to experiment with new ideas. An informed, research-based approach to decision making helps companies successfully reinvent themselves and deliver improved experiences to their customers. As with any retail and research projects, metrics and techniques need to be agreed upon between key parties during the planning stage. And as retail changes, so too must research metrics and techniques.
PRE-STORE

THE PRE-STORE PHASE is focused on understanding how the consumer prepares to shop. It is characterized by exploration, attraction, and action.

UNDERSTANDING THE ONLINE EXPLORER

When consumers go online to explore, they are receptive to unexpected messages and open to new news, suggestions and engagement opportunities. For example, they may be visiting ‘their’ social media site to check if anything has happened since their last visit—has anyone responded to their post, do they have any more ‘likes’, has anyone left them a message? Or they may go online to explore what’s happening in the world of fashion, potential holiday destinations, party ideas, or something they are interested in and can get excited about. Understanding how a person browses and shops online allows the marketer to capture the attention and influence the shopper. This also gives insight into who that shopper is, what their preferences are, and hopefully what inspires them to take action.

Google Analytics measure how people engage with your business online via your website, app and other online and offline touchpoints.

Source: Google

59% of shoppers surveyed RESEARCH ONLINE before buying to make best possible choice

Source: Google

PREPARING FOR SHOPPING

Knowing what tools shoppers use to plan their trips and what influencers or offers are most persuasive is also important. In order to influence the shopper decisions, marketers and store designers need to understand how the consumer prepares for their shopping trip and select retail locations.

Know that in the Pre-Store stage shoppers are often subconsciously collecting purchase decision information. They are open to offers because they generally purchase 70% of the items they plan to purchase. Because of these actions, marketers need to be able to plan for stock levels, ignite purchase influencers, offer purchase incentives and above all know which tool to use to do so.

TRACKING ONLINE BEHAVIOR

One way of understanding the shopper pre-store is to track their online habits. With over half of the shoppers using the internet to research products before going in-store, marketers can take advantage of tools that allow for social listening.

Other companies will even track the consumer’s online journey, discover what they share, what they talk about, what they buy (when they buy online or use a credit card that can be tracked) and in some instances will even use the GPS on the shopper’s mobile phone to track where they are. This rich background allows marketers to serve consumers ads and other promotions that are more likely to be relevant.

Marketers can use the Google Analytic suite of tools at a minimum, but to understand shoppers more fully they should be using a clickstream data source.

POS SALES DATA

In many research projects, observational research starts with a review of prior sales data. This information cannot help to gauge retail productivity and the quality of the shopping experience. However, sales data only reflects “realized demand”, the cases when shoppers have found the products they desired and made a purchase. Sales statistics do not yield insight into the dynamics of the shopping process or the pain points that cause some shoppers to abandon their...
purchases. Note, POS data is often reviewed during the Post-Store phase as well.

More sophisticated retailers are using advanced analytics and building proprietary algorithms to map the online shopper journey and test the uptick of various push offers to support their “suggestive marketing/promotional strategies” deployed during an online shopper engagement.

Beyond merely looking at straight-line POS data, others are taking a more heavy-handed data science approach to this incorporating multi-dimensional data sets and analytics to shed greater meaning to what POS data may reveal; the analogy is that looking strictly at POS data is like looking in the rear view mirror of what happened but the fundamental “WHY” it happened understanding is missing and the reliability of it as an accurate indicator of future behavior is suspect. So, things like basket analysis, correlations with customer data from panels or longitudinal studies are modelled with POS data to get to a deeper understanding of shopper needs and this inform such things as category management decisions, price and promotional strategies, and customer engagement strategies.

ATTITUDE, AWARENESS, & USAGE (AAU) STUDY
An AAU study is used to form the underpinnings to building a segmented understanding of shopper attitudes, behavioral drivers, met/unmet needs, degree of strength/entrenchment of shopper behaviors, trip missions, shopper mindset/mindshare vis-à-vis competitive landscape, etc. While effective in setting the groundwork to understanding the shopper at the pre-shop stage, an AAU can inform strategies at all stages during the pre-to-in-store-post shop experience.

AAU can also help inform the “To-Store” stage by outlining circumstantial understanding around different trip scenarios that may shed insight into how to influence different shopper segments. Things such as distance willing to travel, time of day, direct vs indirect visit, anticipated trip type, etc. can inform this such as media planning, day-part strategies, weekday/ weekend incentives, etc.

ETHNOGRAPHY
Typically, ethnography involves studying a person or small group of people in their own environment (i.e., their home, in-store, at work) depending on the purpose of the research. See the 2014 POPAI Mass Merchant Study on page 14 for more on in-store research. The ethnographer’s overall goal is to get a deep understanding of the subject at hand. Perhaps the researcher wants to understand how the subject uses a specific product, how they do a specific task, or a general understanding of a day in the life of a particular demographic group. Ethnography is also used to see how shoppers interact with store environments and in-store marketing materials. See Shop-Along Market Research on page 14 for in-store ethnography research.

FOCUS GROUPS
These group sessions are an excellent way to test marketing materials/ messaging, products, packaging, and store concepts. Generally held in a dedicated focus group facility, there are growing opportunities to conduct these groups online with the help of focus group software or via mobile phones via Apps.

Focus groups generally consists of an informal discussion of a particular topic with a small number of selected participants. The number depends on the topic and the complexity of the concepts being discussed. A trained moderator leads the discussion without influencing to ensure that all the subject areas are discussed and the views of all the participants are as clear as possible.
VIRTUAL REALITY (VR) is a computer generated artificial environment. Virtual market research is the latest advanced survey technology providing the respondent with sensory stimuli about the product or service being researched.

SIMULATION is a model composed of mathematical and logical relationships designed to represent an actual system and indicate how the real system would react in various circumstances.

VIRTUAL AND SIMULATED ENVIRONMENTS
After a virtual store has been rendered, tests can be conducted much more quickly (in days) compared to field studies (which can take months or years). VR allows for confidentiality during testing, whereas an in-store pilot study could potentially expose a retailer’s ideas to its competitors.

Brands and retailers often turn to virtual and simulated environments to understand how people might shop a new retail environment, shelf setup, or a display/fixture. This allows for rapid learning and interaction of store layout, shelving, merchandising, etc. It can significantly reduce cost and save time in learning. Doing the study in a simulated environment alleviates the need to test in store and thus keep secret any planned changes. Other benefits to using virtual simulated Artificial Intelligence (AI) driven test environments include:

<table>
<thead>
<tr>
<th>Accuracy</th>
<th>Cost</th>
<th>Speed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Al-enabled shelf scores provide a highly optimized cluster or store specific assortment and arrangement that has been validated by shoppers.</td>
<td>Digital prototyping is much more cost effective than physical sets and traditional shopper testing, all planning activities happen in a virtual environment that can be built, reconstructed and manipulated at any time substantially reducing costs.</td>
<td>Real-time predictive analytics and shopper validation reduce the time and cost of traditional research or in market testing</td>
</tr>
</tbody>
</table>

MOBILE MARKET RESEARCH
Mobile Market Research is where participants take part and answer surveys or interview questions via a mobile device. This can be done at any time during the path to purchase and there are numerous types of research that can be conducted via mobile app. These include, but are not limited to:

- **QUANTITATIVE RESEARCH**
  Participants complete surveys and allow applications on their mobile device to gather information about them or their environment, referred to as passive data collection.

- **MIXED-MODE QUANTITATIVE STUDIES**
  Some participants complete surveys via a PC while others use a mobile device.

- **QUALITATIVE RESEARCH**
  The mobile device either facilitates communication (e.g. taking part in an online focus group from a tablet), or facilitates data collection (e.g. collecting photos and recordings), or a combination of the two.

- **RESEARCH COMMUNITIES**
  The mobile device is a key method of communication or participation. Mobile provides maximum flexibility, easy access and quick response times as an added benefit.

- **FACE-TO-FACE RESEARCH**
  Where the interviewers are using mobile devices to collect data, sometimes referred to as mCAPI (CAPI utilising a mobile device).

Source: InContext

Source: Shop!
Say good-bye to traditional health and wellness stores, and hello to the modern-day, high-tech apothecary—complete with CBD products, nutritional supplements, and the latest in interactive health support and education. The Vitamin Shoppe is one retailer on the leading edge of this paradigm shift with the launch of its new brand strategy and concept store in Edgewater, N.J.

Designed by brand experience agency, ChangeUp, the strategy is simple: make The Vitamin Shoppe a specialty retail brand as the foundation for two main goals:

- Strengthen the brand by crafting a new brand promise, codifying fundamental values, and empowering in-store staff (“Health Enthusiasts”) to be the coach that customers want
- Transform The Vitamin Shoppe Brand Experience with a new store concept – “Modern Apothecary”

The team utilized shopper research to validate the prototype design and assess the attitudes and perceptions of its design. The validation included a series of visual representations of critical components and touchpoints of the new Vitamin Shoppe brand experience and how it delivered on the new brand promise.

The outcomes of the research provided the confidence that the concept would deliver the new brand, an updated experience, and improve store performance. The team discovered that:

- Frequent Shoppers tended to prefer human interaction, while Infrequent Shoppers favored shopping more independently
- Frequent Shoppers showed interest in the new design but expressed wariness of change
- The proposed new design appealed strongly to Infrequent Shoppers, who perceived it as modern, easy to navigate, innovative, and inviting
- Infrequent shoppers had increased purchase intent for the new concept

The RESEARCH RESULTS CODIFIED KEY ACTIONS:

- Empower Health Enthusiasts to help each shopper personalize their own solutions, which has led to increase Units Per Transaction (UPT) by 6% since reopening versus pre-period and 9% better than the chain for the same period
- Reinforce the brand (and private label products) without overselling, a critical tactic to converting or winning back infrequent shoppers. This led to a 300-500 basis point lift in percent of total overall sales within the new store for private label brands.

“We’re learning from our Edgewater prototype,” Sharon Leite, CEO of The Vitamin Shoppe has commented. “The average ticket and UPT are higher than average for our existing stores. …The Vitamin Shoppe has always talked about being a specialty retailer, but we really never acted like one. Until now.”

The biggest key lesson learned is to always check-in with the consumer in any strategy and design process; they are surprisingly insightful and can provide the confidence needed to take (bold) action. Invite them to share their perspective (early and often) and allow them to co-create the solution with you.

MATERIALS USED:

Overall Materials Used: White laminate, wood laminate, white and black paint, wood LVT flooring, and brass and black details.

Merchandising Fixturing: A variety of new feature fixtures were introduced to showcase products in a unique way that distinguishes from competitors. For example, nesting tables showed collections or curated regimens of products together and display for education.

Materials & Finishes: The Modern Apothecary theme established a palette that included natural and earthy materials, such as wood and black and bronze metal, and soft, warm colors. Each design element lends itself to a little bit of an old-world execution to showcase new items. Details were at eye level, like leather straps with brass snaps attaching to metal frameworks.

Lighting: Lighting played a large role in the success of the design concept. The intentional lighting strategy lowered the lights for ambiance and used illuminated glass shelves to create focus on featured items. We focused with spots to hit the face of products and called attention to the back counter of the store through a secondary level of lighting—adding a sparkle.

RESEARCH DETAILS:

- 10-15 minute, online, quantitative survey
- Respondents first evaluated the blinded concept, then the Vitamin Shoppe branded concept
- 1,428 respondents (1,005 current customers and 423 infrequent customers)
TO-STORE

THIS PHASE COVERS the actual trip to the store. It is about understanding shopper behaviors and motivators while in transit. As previously mentioned, the AAU study can provide some insight on different trip scenarios undertaken by shoppers.

GEOTRACKING

Geotracking during the To-Store phase focuses on the flow of customers to/from the store, parking lot, and/or inside the mall. Knowing the shoppers’ typical routes and movement patterns serves as a basis for understanding what, if anything, attracts the shopper to the store. By understanding a customer’s route to the store, marketers can place advertising for the store and/or products along the route.

There are a number of methods used for geotracking. The simplest one is physical observation, when the observer records the number of people moving around the exterior of the store. Industrial cameras can also be used for such observations. The recordings of which are evaluated either by the researcher or by software.

Mobile phone tracking is also another option. Foot traffic data can be provided through mobile phones and various vendors. These types of services allow marketers to understand where people go and how long they dwell. Using the proximity information on geographic location, shoppers can be targeted with specific ads, offers, etc. It is also possible to tie this information with POS/Panel data on purchase and ‘close-the-loop’ as they say. This is becoming an increasingly important part of the mix and way of understanding some of the pre-store behaviors. This is different to beacons and phone tracking that are in-store.
IN-STORE

BY WATCHING SHOPPER BEHAVIOR in-store, researchers can measure potential demand in terms of customer traffic and product interest, the time and effort expended shopping, and purchase outcomes. This research also informs store design/store experience decisions as it will shed insight into how shoppers navigate and engage with the store, how effective displays and communications are, the presence of choke points or negative friction in the in-store customer journey, etc.

The first few minutes of a shopping trip sets the tone. During this moment, the shopper is mentally mapping out the trip. The store perimeter offers the most opportunity for discovery, enticing shoppers down the aisles with endcap displays. Knowing the mindset of the shopper, trip type, and habits affect product selection.

IN-STORE METRICS
The in-store experience is critical to converting consumer demand to purchase. Therefore, an important goal of retailers, store designers, and marketers, is to create an environment that is easy to shop, provides an engaging and enjoyable shopping experience, and ultimately drives product sales. Research conducted in the field (i.e. a store), a laboratory, or even a virtual reality simulation, yields insights that help retailers understand their shoppers’ purchasing behavior and preferences. Thus, studies can help retail teams determine which package design, product assortment, merchandising, signage, store layout, or other retail environment element will most effectively appeal to a store’s customers.

AT THE STORE LEVEL
By observing shoppers within the retail environment, the research team can collect data to inform the following shopper behavior metrics:

### Shopper navigation
What are the shopping paths commonly taken by shoppers inside the store? What elements of the store layout direct shoppers’ journey through a department, aisle, or category, and draw shoppers’ attention?

### Foot traffic
How many shoppers walk by a specific area in the store? What percentage penetrate each department, aisle, and product category? These data help companies understand the effect that new store layouts and signage have on shopping trends; it can also help marketers decide where to place promotional materials.

### Zone performance
How well does an area of the store perform with shoppers (e.g. time spent, categories/products considered, purchased). This information helps marketers understand shopper behaviors from a holistic store view down to a specific product display.

Source: Shop!

AT THE SHELF & DISPLAY LEVEL
In-aisle narrows down into specific tasks, mental maps, navigation cues while increasing shopper foot speed. We learned that signs, adjacent product placement, colors, and shapes can all influence at this level.

Retailers have control over where products are sold and considerable influence over a number of touchpoints within retail. Location is key to delivering the element of surprise, targeted solutions sets, increased brand visibility and intersecting shopper traffic patterns.

Packaging and display merchandising are first impressions. Make it simple to open, functional, and planet-friendly, designed with transparency in labeling.

There are a number of metrics for understanding how the shopper interacts with a shelf, fixture or display in the store.

| **NOTING** | Do shoppers see the display? Is the display effectively attracting their attention? |
| **STOPPING** | Does the display stop shoppers who are walking by? |
| **ENGAGING** | Do shoppers read the display? Handle the products? Read the packaging? |
| **DRAW RATE** | Of the total store traffic, what percentage of people stop at a display or shelf? |
| **DWELL TIME** | How much time do shoppers spend at a display (or in an aisle, or at a shelf/fixture)? The longer shoppers linger at a display, the more likely they will purchase. |
| **ABANDONMENT** | What percentage of shoppers walk away from a product or display after engaging with it? If shoppers are picking up a product, reading the package, and then placing the product back down on the shelf instead of purchasing it, the brand should conduct further research to identify the reasons for abandonment. |
| **DISPLAY EFFECTIVENESS** | How many shoppers purchase from a display? |

Source: Shop!
IN-STORE TECHNIQUES

GEOTRACKING
Geotracking is also used in-store to monitor the flow of customers, their typical routes, movement or standing by certain goods. This knowledge serves as a basis for the optimal arrangement of the sales area, for example, to deploy product categories, subcategories or POP media, or to remove shopping barriers and improve orientation in the store. The benefit of properly implemented outputs can represent more convenient and faster purchasing, and thus increase sales.

Using geotracking, we can find answers to the questions whether the given POP display is in the right place within the store, what percentage and what type of visitors came into contact with it, whether the sales area is adapted to the logic of natural movement of shoppers, whether there was a change after remodeling the store, how much time people spend in specific places and where queues are being eventually formed, etc.

There are a number of methods used for geotracking. The simplest one is physical observation, when the observer records the number of people moving within the sales area. Much of the data the retail team requires can be obtained by simply observing the store environment. From the sales floor-or behind a one-way mirror-an observer can discreetly count the numbers of shoppers who stop at a display and who walk past it, measure the dwell time of each encounter, code demographic characteristics (e.g., the gender, age group, and ethnicity of the shopper), and record the data by hand or with a mobile device. Visual observation is unobtrusive and causes minimal disruption of shoppers’ activities.

Industrial cameras can also be used for such observations, the recordings of which are evaluated either by the researcher or by software.

With active cameras, it is possible to use technology to observe the number of people or the amount and duration of their eye contact with the measured stimulus. Some can determine basic demographic data. The camera can also be built into POP applications, which recognize the customer’s mood and select the content accordingly.

Another possibility is the use of thermal imaging cameras capturing body heat as infrared radiation when people pass under the counter. The movement can also be monitored via radio frequency waves using RFID chips, which can be placed around the sales area, on a shopping cart or handed over to selected customers.

PROXIMITY MARKETING uses the Internet of Things (IoT, the transmission of information among devices via the Internet) to deliver messages that are customized based on shoppers’ locations.

Some researchers are tapping into stores’ existing video surveillance systems or installing custom hardware to study shopper behavior. This unobtrusive method of observation allows stakeholders to observe all elements of the in-store shopping experience, including store traffic patterns, dwell time, display/fixture effectiveness, and product preference. Retailers can obtain instant snapshots of store performance and find out which products and areas engage shoppers. Best of all, these systems collect data 24/7, creating large datasets that allow retailers to model and predict in-store shopper behavior.

The example below shows how cameras were used throughout a store to see how many people visit the various zones within the store. In this situation, zones Z1, Z2, and Z4 were the most appropriate to place communication materials, while zone Z3, with the least shoppers would be least appropriate.

MOBILE PHONE TRACKING
Mobile phone tracking uses the signals emitted by customers’ smartphones to track their shopping behavior. As shoppers move about the store, these signals are monitored during wireless communication with nearby devices and networks. (“Active monitoring,” is typically performed by the service with which the device is communicating, such as the cellular provider or Wi-Fi hotspot to which the device is connected. “Passive monitoring” intercepts signals from the device as it communicates with or searches for other devices and networks.)

This method allows retailers to understand traffic patterns, dwell time and shopper preferences in or near locations of interest in the store. The researchers can ascertain the volume of visitors to their store, the frequency at which visitors return, and their in-store behavior. Observation can also be complemented with inquiries before and after the purchase. The movement can also be monitored via mobile phones via Wi-Fi, GPS or iBeacons, which communicate with smartphones via Bluetooth.

45% of grocery shoppers prefer accessing promotional offers via text message while shopping.
Source: Shop! and 2017 HelloWorld study
RFID

RFID chips are another technology that can be used to track shoppers’ locations and paths within the store. RFID chips can be embedded into customer loyalty cards or attached to shopping carts and baskets to identify shoppers and record when they come into close proximity with beacons installed near specific products, displays, or departments in the store.

NEUROPHYSIOLOGICAL AND BIOMETRIC METHODS

Observational research can be augmented with biometric measures to capture shoppers’ cognitive, emotional, and physiological responses to stimuli in the shopping environment. Electroencephalography (EEG) technology measures brain activity to determine a test subject’s cognitive and emotional state in response to a POP display design, product package, price tag, or other element of the shopping experience. EEG is often used in combination with other biometric measurements, such as heart rate, breathing frequency, muscle tension, skin surface temperature, and skin conductance (caused by sweating), to identify those elements of the shopping experience that excite the research participant. It should be noted that these methods are intrusive, and they may affect shoppers’ behavior.

EYE TRACKING

Eye tracking methodology measures the visual attention of shoppers as they navigate the store aisles, identify relevant products, and make their selections. It is different from the methods described above in that it requires shoppers to be intercepted, thus intruding upon the shopping trip. The amount of data captured in these studies is limited by the number of shoppers who agree to participate and by the availability of equipment. Participating shoppers wear a pair of glasses with embedded cameras that record video of the shopping trip and eye fixations. In analyzing the video footage from multiple shoppers’ trips, the research team can monitor the in-store portion of the path-to-purchase from the shopper’s perspective.

MOBILE EYE TRACKING CONSIDERATIONS SETS

<table>
<thead>
<tr>
<th>NOTICE</th>
<th>EVALUATE</th>
<th>SELECT</th>
<th>BUY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activity</td>
<td>A quick glance with subliminal recognition of colors &amp; shapes</td>
<td>Look closer at sections packs and brands</td>
<td>Pick up packages and check them out closer</td>
</tr>
<tr>
<td>Insight</td>
<td>Shoppers start at left &amp; right ends of categories &amp; work to center</td>
<td>Process of pruning down consideration set begins here</td>
<td>Shoppers read labels and other pack information</td>
</tr>
<tr>
<td>Consideration Set</td>
<td>Products noticed enter the wide consideration set</td>
<td>Products examined more closely are in intermediate consideration set</td>
<td>All products picked up are in narrow consideration set</td>
</tr>
</tbody>
</table>

HEAT MAPPING

Heat maps are used to visually represent the patterns of shopper traffic and category engagement obtained through observation. Heat maps can be used to show shoppers’ penetration of different departments and product categories within the store, as well as shoppers’ attention to shelf displays and specific product packages. Not only do heat maps identify exactly what is drawing the attention of the shoppers on the shelf or on the sales floor, but they reveal the products and areas that shoppers overlook.
CASE STUDY: USING SHOPPER RESEARCH TO DEVELOP A HYPER LOCALIZED STORE CONCEPT

Retail Channel: Toy Store
Product Category: Games/Toys
Agency: Knowinstore
Location: Czech Republic

PROJECT DESCRIPTION
Analysis of customer behavior at point of sale in real time. What is happening during the customer journey in the Czech toy chain. Research location: Selected store in a demographically representative shopping mall located in the wider center of Prague
Length of measurement: Approximately 4 months
Project objectives: Find store trends and points of interest

BUYING
The research team paired the collected data from the above modules with the POS data of the store.

KEY LEARNINGS
1. Occupancy Levels: The biggest problem of the store was store occupancy, with the higher occupation of the store, sales decrease. Thanks to the measured trends of the store the retailer knows when it is possible to see the phenomena. As soon as the occupancy is highest, it is necessary to clean out of the store in the shortest possible time and to take advantage of the lost business opportunity. The retailer can do this by properly scheduling employees and opening additional checkouts.

PROJECT RESULT
Successful mapping and analysis of traffic trends in the role on collected data such as:
- Traffic (visitation), store occupancy vs. transaction
- Lost business opportunities
- Outdoor traffic, Visitation before changes in the surroundings:
  - Shopping Mall actions (marketing action for support their leaseholds), effectiveness of local actions and client actions
- Optimal visit time
- Queue monitoring

METHODS AND TECHNOLOGIES USED
Research method: KNOWDATA/PYGMALIOS ANALYTICS
Traffic: Wifi, People Counting (Xovis video sensors)
Accurate measurement of traffic, population, customer loyalty
Demographics: Demographic cameras to determine shopper demographic trends
Browsing: RTLS (Real Time Location System), tags in baskets were used to determine the exact locations of usage of shopping area by customers.
Queue: Video sensors (Xovis) were located above the checkout zone for queue tracking for better employee planning

2. Staffing: According to the monitoring of the store in the shopping mall is important focused on the most exposed period Friday to Sunday. This trend was continually followed through the measurement, which included Christmas. Focus on how many employees are needed, whether the retailer can use temporary workers, when to deploy them, how to plan their activities.

3. Timing: Focus on what people should buy and when (more expensive products in the morning, cheaper in the afternoon).

4. Marketing Events: Focus marketing events (e.g., Black Friday, suitable Shopping Mall events, premieres of films etc.) taking into account the season and the possibilities of exhibiting selected products, secondary exposure.

5. Tying it all together: The results are then analyzed to better understand the behavior of the customer. The Team was able to identify possible ways how to improve the feedback not only by the design of the stores, by changes of the layout of the store (layout of particular shelves), by the assortment, but also by the service and service itself. An important factor is also higher profit (not only from the sale of goods, but also savings in terms of better operating efficiency).
IN-STORE INTERVIEWS

INTERCEPT INTERVIEW
The intercept interview is a self-report measure of shoppers’ perceptions, attitudes, and purchase intentions. Shoppers are approached (or “intercepted”) in high-traffic locations such as grocery stores or shopping malls. The main part of the interview can take place either on the store floor or in another location. Intercept interviews can help marketers understand shoppers’ product preferences and gauge in-store marketing campaign effectiveness. Intercept interviews are generally used to:

• Understand customers’ shopping goals and their perceptions of, and attitudes towards, the in-store experience.
• Assess how shoppers make their purchase decisions and identify and understand impulsive shopping triggers and decision heuristics.
• Evaluate how the number and characteristics of in-store displays impact shoppers’ product awareness, brand perceptions, and in-store decision-making; and
• Explore differences in customer segments based on shoppers’ demographic characteristics, the benefits desired, personality, and/or shopping trip type.

Intercept interviews may be conducted in two stages, with questionnaires that both precede and follow the shopping trip.

PRE-SHOP INTERVIEW
Prior to entering the store, shoppers may be asked a set of qualifying questions to ensure that they have the desired demographic characteristics, shopping experience, and/or product category usage. Shoppers who have recently participated in a study, or who work in marketing, advertising, or retailing, may be excluded from participation.

Shoppers are often asked to provide information about their planned shopping trip. These questions might include asking about:

• Planned purchases (unaided category, product, and brand purchase intentions).
• Planning activities engaged in prior to visiting the store (e.g., creating a shopping list, clipping coupons, using a mobile app, searching online).
• The amount of money budgeted and estimated spending for planned purchases and the total shopping trip; and
• General shopping behaviors in the retail channel.

Upon completion of the pre-shop interview, shoppers then continue on their regular shopping trip without any additional intrusion from the researchers.

POST-SHOP INTERVIEW
After shoppers purchase their products, they return to the research station where their receipts are digitally scanned, and then they participate in a second interview about their experience. The questions are designed to collect the following shopper information:

• Planned and unplanned purchases, and shopping motivations.
• Attitudes towards and perceptions of the retail environment and the service experience;
• Attitudes towards and perceptions of specific departments and product categories;
• Awareness of (or ability to recall) displays for product purchases;
• Total amount of money spent; and
• Satisfaction with the shopping experience and loyalty to the store.

During the post-shop interview, respondents might be asked additional demographic questions about household income, level of education, ethnicity, marital status, and number of children (and their ages) in the household.
The data from the scanned receipts and the pre- and post-shop interviews are analyzed, and the shoppers’ decisions are classified into the following categories:

- **Specifically planned**: Purchases the shopper specifically identified by name in a pre-shopping interview
- **Generally planned**: Purchases referred to generically in the pre-planning interview, but not by brand
- **Unplanned**: Purchases not mentioned in the pre-shopping interview and bought on impulse
- **Substitutes**: Purchases that were specifically identified by name in the pre-shopping interview, but were not made during the trip, because the shopper ultimately chose a different brand or product.

**EMPLOYEE INTERVIEWS**

Sometimes it is also beneficial to interview a store’s employees, since they are “on the front lines” and regularly interact with shoppers. For example, they know which products shoppers request (including items that the store does not carry), and they respond to questions and comments about product price, performance, reliability, and service. Employee interviews can ask for ratings of the quality of the customer experience, as the retail staff are likely to know the in-store pain points that make shopping difficult for customers.

**SHOP-ALONG MARKET RESEARCH**

This type of ethnography research is one-on-one, in-depth interview observes actual shopping behavior rather than behavior that is recalled and reported after shopping. This method by SIS International™ is used to gain immediate, real-time feedback when and where they consider a purchase. Areas of discussion revolve around:

- **The product**: displays, shelving, signage, packaging, labeling, pricing and branding.
- **The physical retail establishment**: layout, lighting, maneuverability, and cleanliness.
- **Personnel**: availability and helpfulness of staff, salespeople, and/or customer service.

---

**2014 POPAI MASS MERCHANT STUDY**

**LED BY SMARTREVENUE, Shopper-Sense, and Eye Faster,** the 2014 POPAI Mass Merchant Study began fielding in September 2013 and was completed by the first week of November 2013. The study used a core methodology of pre- and post-shop interviews as well as a display audit. In addition to the pre- and post-shop interviews, a subset of shoppers wore eye tracking equipment to provide an unobstructed view of the shopper journey.

A total sample of 2,991 Mass Merchant shoppers, all identified being 18 years or older, were intercepted prior to their shopping trip and asked to participate in store research. The study was executed across four broad U.S. geographic census regions, and the number of interviews conducted in each region closely reflected the census balance. The fielding took place in three major Mass Merchant retail chains.

Shoppers were randomly intercepted at the entrance of each store and asked to participate in store research. The interviews were conducted Thursday-Sunday in each chain. Upon completion of the pre-shop interview, shoppers were then free to continue on their regular shopping trip without any intrusion from the ethnographers. After shoppers purchased their products they returned to the ethnographer station where their receipt was digitally scanned, and the second interview began.

POPAI calculated the in-store decision rate by taking the sum of all purchases in the Generally Planned, Unplanned, and Substitute categories. In the 2012 Study, the in-store decision rate climbed to a high of 76%. The 2014 results show the in-store decision rate continues to climb to 82%. Despite this increase in the in-store decision rate, it is important to note the difference in channel, which is likely an influence.

**IN STORE DECISION RATES**

For more information on the Shopper Engagement Series, please visit Shopper Engagement Study Reports.
CASE STUDY: USING SHOPPER RESEARCH TO CREATE A HYPER LOCALIZED STORE CONCEPT INSIDE A MALL

Retailer: LIDL STROMOVKA
Retail Segment: Grocery
Location: Czech Republic
Agency: WELLEN

BACKGROUND & OBJECTIVES
The LIDL retail chain is known for its highly standardized store concept, mainly located in stand-alone greenfield locations. Recently, however, LIDL has focused on the development of new formats that allow it to expand into areas with a lack of available real estate. At the end of 2019, the first LIDL store was opened in Stromovka, a new shopping center in Prague’s Letná district. The challenge was to adapt the standard store format to overcome the limitations of the mall property such as the distance from the main entrance and the lack of frontage for communicating special offers. The objective of the local adaptation was twofold: firstly, to seamlessly incorporate the store into the shopping center design, and secondly to reflect the sociodemographics of local consumers, their interests and shopping needs.

CASE STUDY: USING SHOPPER RESEARCH TO CREATE A HYPER LOCALIZED STORE CONCEPT INSIDE A MALL

Prague 7 is a blend of Czechs and foreigners who prioritize a healthy and ecological lifestyle and modern technology. They often spend their free time in Stromovka Park, the inspiration for the naming and visual style of the shopping center, and the local adaptation of the LIDL store concept. Key elements of the concept include natural motifs and materials, design elements that make a visual reference to the park, modern technologies, plus a product assortment attractive to local customers. These elements are brought to life in a unique entrance zone, decorative store elements, and daily offers communicated via digital screens.

EVOLUTION: CONCEPT TO IMPLEMENTATION
The communication strategy and subsequent visual design language were developed based on primary research. Personal interview surveys were conducted pre-opening within a two-kilometer radius of the project location. All interviews were conducted on the same day. In addition to gender and status (working, living), the survey included questions related to media consumption, parking, environmental and other attitudes, as well as expectations for the upcoming project. The primary objective of the research was to gauge respondents’ perceptions of the project. We verified our hypotheses regarding the behavior and opinions of a sample of prospective customers. Based on the research outcomes, a design and communication approach was developed, which corresponds to the unique values and characteristics of the district.

EXPLANATION OF SUCCESS
The adaptation of the LIDL store for the Stromovka location allowed for both the integration of the store with the visual concept of the mall and the socio-demographics of the local catchment area. It adapts to the locations’ needs and expectations, be it ecological design or modern technological solutions.

DESCRIPTION OF ACHIEVEMENTS
The store design was well received by customers and is one of the most highly trafficked properties in the Stromovka Shopping Centre. Based on its success, LIDL plans to expand the format to other locations in the future.
CASE STUDY: USING SHOPPER RESEARCH TO MEASURE POP EFFECTIVENESS

Retailer: Albert and Hruška stores
Location: Czech Republic
Agency: Nielsen and DAGO, s.r.o.

On average, 82% of the decision regarding product we are going to buy is made spontaneously in the store or even in front of the shelf (Source: POPAI 2014 Mass Merchant Shopper Engagement Study). That shows the importance of the right product placement on the shelf. On the shelf, POP materials can be easily measured. Companies can also measure the secondary placements anywhere in the store or test different exposures. At Nielsen, they measure campaign by A/B sales data analysis, even months after the campaign execution—thus no need to install any sensors or cameras, the analysis is just about the sales data.

The key is to pair the control stores, where the campaign will not run and test shops, where the campaign will be executed. Each test store will be paired with one unique control store, based on similarity on sales trend and promotional calendar. Pairing can be based both on the last few weeks or long-term development. In the evaluation, control stores allow for forecasting of sales in the test stores in POS campaign period and subtract it from real sales. The outcome is the quantified benefit of the POP campaign. This is done on a larger sample of store pairs, so the results are robust. That allows companies to evaluate both, the brand impact and the products. And makes for easy comparisons regarding how the campaign affected the competitor’s sales or how the sales behave after the campaign (usually, there is a slight drop from baseline sales).

The research can be enhanced with consumer interviews and observations. Thanks to this, companies will not only get the "WHAT", but also the "WHY" behind the POS effect on sales.

THE RESEARCH PROJECT
Kofola is one of the top beverage players on the Czech market, with a unique herbal variant of cola drink. In August 2018, Kofola along with Dago agency exhibited a single pallet with robot Karel on part of hypermarket stores. What was the benefit of secondary exposure in sales? By pairing stores with a similar trend in brand sales, stores with Karel versus stores without secondary exposure were compared.

The Kofola campaign with Robot Karel focused on supporting new flavors takes place also in an in-store environment. After Globus stores, the research took place in Ahold stores and selected Hruška stores.

In this display, the client gave more space to the creative part of the campaign compared to the past.

This year’s hero of the Kofola campaign, Robot Karel, went to stores after TV spots, social networks and other channels. In the one-pallet display, Karel was used as its dominant element that can be easily connected by customers with the story of looking for a cyber-love from other parts of the campaign.

“Compared to the previous years, the display puts less emphasis on the number of exposed products. The entire half is devoted to a creative concept to achieve visualization of the brand within the campaign,” explained Jana Riegerová, the Trade Marketing Manager Senior Retail CS from Kofola. The displays were placed in Globus stores and were also placed in Ahold stores and in selected Hruška stores.

DISPLAY CONSTRUCTION
The display was created entirely from cardboard with several interesting features. It is double-sided, so that it can stand alone in space. Its specialty is that it does not include any palette. The display with Robot Karel is a monolith, which was completely assembled and transported to place and stuff with products. This procedure was chosen due to the complexity of the display. The construction without any palette made it possible to create round corners and use them for branding. Thus, the brand was visible from angles that are otherwise unusable. The visual attractiveness of the cardboard design increased with 3D elements and their layering. For example the wheel on the robot’s head and other industrial-looking parts. “This is a solution similar to the Rajec cardboard display, which succeeded at POPAI Euro Awards. Higher proportion of the image part of the whole composition of this display also increases its attractiveness, which is the reason why some stores tend to leave them in their stores even after finishing the promotion action. We will be delighted, if this is partially achieved also with Robot Karel,” added Jana Riegerová from Kofola.

Over the last two years, the team monitored the usage of more attractive displays, which should support sales as well as provide unique experience when meeting such presented brand. This is often the case when clients wish for more complete services: assembling it in production, transporting it to the store and stuffing it with products. As the emphasis on creativity and visual attractiveness continues to grow, the team expects an increase of number of projects realized in this manner in the future.
POST-STORE

IN THIS FINAL PHASE, it is important to understand what shoppers think after shopping and go back home.

RESEARCH PANELS
Another source of shopper insight is the research panel, which is a large group of respondents (consumers, shoppers, or households) who have agreed to periodically complete surveys on specific topics (e.g. shopping, purchasing, media consumption, lifestyle activities), usually for an incentive. Panels can be used to track shoppers’ purchasing activities over time, their evaluation of retail stores and the shopping experience, and their satisfaction with the products and services offered. This analysis can be conducted across all shoppers and for specific demographic and psychographic segments.

Psychographic data describes a population by psychological traits, such as attitudes, values, emotions, and interests. This information obtained by specialized surveys helps to explain the patterns of shopping behavior observed earlier. With these insights, the research team can identify the pain points in the shopper’s journey and the reasons for poor sales performance.

SOCIAL MEDIA MONITORING
Social Media Monitoring is a great way to understand shopper’s sentiment and monitor a brand’s reputation, and to understand customer’s sentiment about your product or service. This is a two-part process. The first keeps track of mentions and conversations related to a product or brand via social media. The second is the analysis of these interactions and the development of actionable responses, to help make improvements to meet the needs of customers. This is done to find the root causes for conversations and implement changes to improve strategies for the long run.

CUSTOMER SATISFACTION (CSAT) SURVEYS
are used to understand your customer’s satisfaction levels with your organization’s products, services, or experiences.

Source: Qualtrics

RATINGS AND REVIEWS
These are critical today, given the impact pre-store to your first data point of 59% researching online—ratings & reviews have a significant impact on what shoppers do from there, so capturing them post-store is important. Reviews can be found on brand and retailer websites, along with other sites including but not limited to Yelp, Google, Yahoo!, and Influenster. And let’s not forget social media (i.e., Facebook, Twitter, Foursquare).

CUSTOMER SATISFACTION RESEARCH
Companies use regular CSAT surveys to monitor and understand customer needs, satisfaction, and problems with products and/or services. Companies need to understand what makes an experience enjoyable so they can recreate that experience in the future. Companies also need to understand shopper pain points in order to eliminate them.

CUSTOMER SATISFACTION

<table>
<thead>
<tr>
<th>POSITIVE experience</th>
<th>NEGATIVE experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 person tells 9</td>
<td>1 person tells 16</td>
</tr>
</tbody>
</table>

HIGH CUSTOMER SATISFACTION PREDICTS:
- Customer and client retention
- Loyalty
- Product repurchase

Source: Qualtrics
KEY TAKEAWAYS

AS RETAILERS AND BRANDS EMBRACE continuous adaptation to meet the evolving needs of their customers, they must be willing to experiment with new ideas. An informed, research-based approach to decision making helps retailers and brands more successfully reinvent themselves and deliver improved experiences to their customers. The in-store experience is critical to converting consumer demand to purchase. Therefore, an important goal of retailers, store designers, and marketers, is to create an environment that is easy to shop, provides an engaging and enjoyable shopping experience, and ultimately drives product sales. Understanding the experience a shopper has before, during, and after a purchase is extremely important to the success of a product, marketing campaign, and store design.

Research to understand the shopper throughout their path to purchase can be conducted in the field (i.e. a store, at home), a laboratory, or even a virtual reality simulation. This yields insights that help retailers understand their shoppers’ purchasing behavior and preferences. Thus, studies can help retail teams determine which package design, product assortment, merchandising, signage, store layout, or other retail environment element will most effectively appeal to a store’s customers. The research process can be divided into four steps: observe, diagnose, innovate, and test.

OBSERVE
The first step in a research project is to evaluate the customer journey with observational research. By watching shopper behavior, the research team can measure potential demand in terms of customer traffic and product interest, the time and effort expended shopping, and purchase outcomes.

In many research projects, observational research starts with a review of prior sales data. This information can help to gauge retail productivity and the quality of the shopping experience. However, sales data only reflect "realized demand": the cases when shoppers have found the products they desired and made a purchase. Sales statistics do not yield insight into the dynamics of the shopping process or the pain points that cause some shoppers to abandon their purchases.

DIAGNOSE
From the completed observational research, the retail team will have identified who shops, how they shop, and what they buy. The next step is to determine what is driving this behavior. What were the shoppers’ goals? What were they looking for? Did they find it? Were they satisfied? Will they go back to the store in the future?
This information can be collected directly from shoppers using in-store interviews or surveys, either in combination with observational research or as a separate step in the research process. By talking to shoppers, researchers can assess the strengths and weaknesses of the customer experience and identify opportunities for improvement.

**INNOVATE**

In the Innovation phase, the retail team generates ideas to solve the problem that has been diagnosed. To help with the creative problem solving, the team might consult best practice case studies and previous research studies and explore/simulate new solutions.

For a product that is not being selected by shoppers, a different shelf set (how the product is placed on the shelf) can help shoppers find the product more quickly and easily. Or, a new package design might help the product stand out from the competing products on the shelf. Beyond the shelf, newly-designed and properly-placed signage-and other marketing materials-can help attract shoppers’ attention to products, brands, and categories. A new store layout might make purchases more convenient and faster, and it could encourage shoppers to explore areas of the store that they frequently ignored.

The most successful innovators are those retailers who are willing to take risks. However, because of the risk, any decision to move forward should be informed by research and implemented via a well-crafted plan. The planning of the solution should involve employees from many different departments within the retail client’s organization.

Brainstorming should not be limited to senior-level staff only; the team should welcome the perspective of employees across several generations. An external retail consultant can guide a company through the creative process and “break the mold” of organizational norms. The team might also consult experience design experts who work in other fields. A survey of international best retail practices may also provide inspiration.

Once the team identifies the best ideas for improving shoppability, several details need to be planned:

- Who will build and design the solution?
- Where will it be implemented for testing: at a single store or several stores?
- What will be the duration of the experiment?
- What are the benchmarks for success?

**TEST**

In the Test phase, the retail team implements the solution and tracks its performance over time. The methods used to measure the solution’s performance might closely resemble the research methods that were used to observe shoppers’ behavior prior to the experiment.

For many observational studies, testing can be carried out in one store—or a sample of stores—without shoppers’ realizing that they are participating in a pilot. For those studies with more intrusive methods, the research team must arrange for a test location. When conducted in the field, research studies can be lengthy and disruptive to store operations.

After the test data is analyzed, the research team and the retail client evaluate the experiment’s success. The successful solution will likely be fine-tuned based on feedback collected from shoppers before it is rolled out to the retailer’s stores.

Finally, the research team should continue to monitor the implemented solution’s performance over time. If the performance begins to decline at some point in the future, then the retailer should investigate the reasons. Thus, begins the Observation phase; research should be thought of as a cycle rather than a process.

You can learn more about shopper research in Chapters 1.1 and 1.2 of the *Shop! MaRC Exam Prep, 2019 Edition*. To read the chapter or to learn more about the MaRC Program, please visit shopassociation.org/marc/
About Shop!
Shop! Environments Association (shopassociation.org) is the global trade association dedicated to enhancing retail environments and experiences. Shop! represents more than 1,200 member companies and affiliates worldwide from 25 countries. The association brings value to the global retail marketplace through our industry leadership, research programs, industry certification, education and networking events. Shop! produces Retail Environments Online, offering business-focused content to retailers, brands, designers and suppliers throughout the industry.

SOURCES:
2017 Shop! ROI Standards: In-Store Marketing Materials
Daniel Jesensky, managing partner, DAGO, s.r.o.
Eye Faster, www.eyefaster.com
https://blog.hubspot.com/service/social-listening-tools accessed 03/30/2020
Kelly Sakalas, Director, Public Relations, ChangeUp
Knowinstore
NIelsen CZ
POPAI 2014 Mass Merchant Shopper Engagement Study
Shop! Benelux
Shop! MaRC Exam Prep, 2019 Edition
Wellen CZ