As far back as the 1960’s, POPAI’s constituents had the insight to know that they needed to understand the buying behaviors of shoppers in order to affect their purchase decisions through point of purchase displays. Since then, every decade POPAI has conducted a study that tells the story of how shoppers shop. This is the story of today’s shopper.

Understanding the needs, purchasing behavior, and changing lifestyles of today’s shopper is critical in being able to deliver on their immediate and future needs. While it’s true that a shopper’s decisions are no longer limited to in-store, POPAI’s 2012 Shopper Engagement Study finds that now more than ever shoppers are making an overwhelming number of their purchasing decisions in-store. In fact, the in-store decision rate has climbed from 70% in 1995 to 76% in 2012. With today’s shopper being increasingly mobile, social and in control what exactly has changed to push the in-store decision rate to an all time high?

There’s no denying that the shoppers’ path to purchase is considerably different today than it was for the shopper of yesteryear. With the advent of smartphones, shopping apps, mobile coupons, and myriad other innovations, how can it not be? Yet, when we look at the data from POPAI’s series of long running shopper research projects aimed at providing new information on how shoppers behave when they are in different types of stores deciding which categories and brands to buy we see that it all comes down to one thing – in-store marketing.

POPAI has a long history of fielding research around the effectiveness of displays and measuring the in-store decision rate, which creates quite the compelling case for investing in the in-store environment. Comprised of three key components, the in-store decision rate factors in generally planned purchases, brand substitution, and unplanned purchases to determine the true number of decisions being made at the shelf. Moreover, the data shows us that an important part of the marketing mix is the use of materials and devices that stimulate sales where the action is – the point of purchase. Often the decision-making process of shoppers does not occur until they actually see a product in the store. Therefore, the way a product is displayed in a store and is supported by in-store marketing materials can often be instrumental in leveraging sales.

In this report you will find a top line summary of how shoppers are interacting with the in-store environment and how in-store marketing is playing a crucial role in today’s shopper journey.
UNDERSTANDING TODAY’S SHOPPER
A Look At The Unique Shopper Profiles

When shoppers walk into a supermarket, they do not just reveal where they like to buy their food but also a whole host of lifestyle values, from what they read and watch to what they like doing in their spare time. But as POPAI’s Shopper Engagement Study proves, today it is increasingly difficult for retailers and brand manufacturers to shoe-horn their customers into one specific group.

Our predictive shopper profiles contain insights on what shoppers like – based on their stated preferences, their browsing habits, and the products that they actually purchase or abandon in their shopping trips.

Shoppers are clustered into segments to understand the attributes and characteristics that are most important to individuals as they decide where to shop. Shoppers were asked to rate their level of agreement with a broad set of lifestyle and shopping characteristics on a five-point scale. Using factor analysis we are able to create shopper groups based on these lifestyle and shopping statements. These factor groupings form the basis of the creation of shopper segments, which can be analyzed for shopping behavior patterns, price sensitivity, retailer preferences, retailer loyalty, demographic differences, and opportunities for conversion.

These segments have unique attitudes and behaviors as they relate to their shopping patterns and retailer selection. So what shopper profiles have emerged with regards to today’s shoppers? The study revealed four basic profiles in shoppers’ paths to purchase across all the supermarkets we conducted the study in.

### TIME STRESSED
I need to get in and get out.

- Shopper who feels pressured from not having enough time and seems to be always in a hurry.
- Adding to the time pressures are perceived budgetary constraints although this group is not low income.
  - Skews younger (18-44) and full time employed
  - Doesn’t use circulars or coupons
  - Describes self as easily tempted
  - Likely to be shopping with children
  - Least consistent use of written list
  - Second highest percent basket purchased on impulse (70%)
  - Highest total basket average ($67)

### EXPLORER
I want to be inspired.

- A shopper who enjoys seeing what new products are available, browsing the store in general and getting inspiration for meals while shopping.
  - Skews older (55+) and lower income (<45K)
  - Heavy use of circulars to drive retailer choice
  - High receptivity to stores with quality private label products as well as perceived variety of product types and package sizes
  - The most satisfied shopper on overall satisfaction
  - Describes self as controlled and restrained
  - Most accurate in predicting total spend
  - Fewest number of trips per week
  - Shortest time in store

### TRIP PLANNER
My trip is always organized.

- A shopper whose goal is to get the shopping trip over with and executed according to plan.
  - Skews male and older (55+)
  - Low circular use
  - Most retailer loyal
  - Most consistent use of written list
  - Not interested in bargain hunting
  - Describes self as controlled and restrained
  - Most accurate in predicting total spend
  - Lowest percent impulse basket (67%)
  - Fewest number of trips per week
  - Shortest time in store

### BARGAIN HUNTER
I’m looking for a good deal.

- A shopper defined by the willingness to shop around for the lowest price.
  - Least retailer loyal
  - Highest circular use
  - Highest coupon use
  - Most likely to use pre store media to plan trip
  - The least satisfied shopper on overall satisfaction
  - Skews “taking care of the household”
  - Most likely to NOT purchase an item (s)he planned to buy pre store
  - Lowest total basket average ($54)
Anatomy Of The In-Store Decision
Where Shoppers Are Making Purchasing Decisions

In order to understand today’s shopper and better serve their needs, marketers have to first understand how and where shoppers are making a majority of their purchase decisions. To this end, POPAI has developed the in-store decision rate, which dates back to 1965. Purchases are broken down into four different categories and the in-store decision rate is one of the most reliable measures because it is based upon a pre and post shopping interviews – what the shopper anticipates to purchase versus what they actually purchase.

The four categories that purchases are classified into are:

<table>
<thead>
<tr>
<th>SPECIFICALLY PLANNED</th>
<th>Generally Planned</th>
<th>Unplanned</th>
<th>Substitutes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchases the shopper specifically identified by name in a pre-shopping interview and bought.</td>
<td>Purchases that were referred to generically in a pre-shopping interview, but not bought by brand.</td>
<td>Purchases that were not mentioned in the pre-shopping interview and bought on impulse.</td>
<td>Purchases that were specifically identified by name in a pre-shopping interview, but actual purchase reflected a substitute of brand or product.</td>
</tr>
</tbody>
</table>

The in-store decision rate is calculated by taking the sum of the purchases that fall under Generally Planned, Unplanned, and Substitutes categories. Today the in-store decision rate has reached an all time high of 76%. Shoppers are specifically planning less and deciding more at the shelf, suggesting today’s shopper is more flexible than ever. Notably, unplanned decisions are down suggesting more pre-store planning at the category level is being conducted. And when shoppers did make an impulse purchase most claimed that the purchase stemmed from remembering that they needed or wanted an item once in the store with taking advantage of a sale as the second most cited reason for making an unplanned purchase.

![Image of pie charts showing the in-store decision rates over the decades.](image-url)
On Display And In The Basket
The Efficacy Of In-Store Displays

Thousands of brands fill the shelves of today’s supermarket. A major part of this research was to audit the stores where interviewing was being conducted on that date. A number of details were recorded about each in-store display that was discovered. Some of these details included: type of display, location within the store, and the product that it was for.

On average, 150 pieces of P.O.P. were observed in each store. Half of surveyed shoppers indicated that they recalled at least one display seen during their shopping trip with endcap and free standing displays being recalled most frequently. Additionally, 13% of all eye-fixations recorded were drawn to in-store displays. At first glance this may not seem like a significant number, but in the field of eye-tracking and neuroscience it is quite high.

More than 1 in 6 purchases are made when a display with that brand is present in store.

In 1995, 47% of displays were placed in secondary locations. By 2012, this number has risen to 60% as retailers have embraced the notion of cross promoting items and locating displays away from the home aisle.

KING OF THE AISLE
A look at the display types dominating in-store

<table>
<thead>
<tr>
<th>Display Type</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Floor Stands</td>
<td>51%</td>
</tr>
<tr>
<td>End Caps</td>
<td>35%</td>
</tr>
<tr>
<td>Power Wing/ Sidekick</td>
<td>3%</td>
</tr>
<tr>
<td>Inline/Gondola</td>
<td>2%</td>
</tr>
</tbody>
</table>

ALL EYES ON THE DISPLAY
A look at the Fixation Rates of shoppers

- End Caps: 44%
- Power Wing: 34%
- In Line: 12%
- Floor Stands: 10%

LOCATION, LOCATION, LOCATION
A look at where displays are popping up in the supermarket

<table>
<thead>
<tr>
<th>Location</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>End of Aisle</td>
<td>42%</td>
</tr>
<tr>
<td>In Aisle</td>
<td>28%</td>
</tr>
<tr>
<td>Perimeter</td>
<td>23%</td>
</tr>
<tr>
<td>Front End</td>
<td>7%</td>
</tr>
</tbody>
</table>
THE METHODOLOGY
A New And Innovative Approach

POPAI’s Shopper Engagement Study is an update to the 1995 Consumer Buying Habits Study. The Shopper Engagement Study is comprised of two concurrently executed research modules. The Core Methodology included pre and post shopping interview formats with 2400 shoppers. The Secondary Module incorporates portable electroencephalography (EEG) equipment, worn by respondents while they shop. This is combined with eye tracking to tie shoppers’ physiological responses to exactly what they are looking at, eliminating such issues as recall and denial.

POPAI fielded its most recent study beginning in the fall of 2011 and concluding in March 2012, which was fully funded by the association. In-store intercept interviews were conducted with 2400 shoppers across the four broad U.S. census regions. In addition, a subset of 210 shoppers were recruited to participate in the EEG/Eye-tracking portion of the study.

CORE METHODOLOGY
SAMPLE
A total sample of 2400 supermarket shoppers was interviewed for the core methodology. The study was executed across the four (4) broad US geographic census regions. The number of interviews conducted per region closely reflected a census balanced sample.

The study was conducted across twelve major supermarket banners. These outlets were large, high-volume stores selected from leading chains and were evenly divided among the four (4) geographic census regions.

SHOPPER INTERCEPT INTERVIEWS
Supermarket shoppers were randomly intercepted and screened at the entrance of each store location for being at least 18 years of age and on a routine stock up or fill in trip. These interviews were conducted across all day parts and all days of the week.

The 10-minute entry interview gathered information on:
- Planned purchases (unaided category and brand planning)
- Any pre-store path-to-purchase activities shopper engaged in for planned purchases and in general
- Amount budgeted/expect to spend for planned items and total basket
- General shopping behaviors in channel
- Demographics and profiling information

Upon completion of the entry interview, shoppers were asked to return to the researchers after they completed their shopping trip for a 15-20 minute post-shopping interview. A $25 store gift card incentive was provided to each shopper who returned and completed the post-shop interview. Shoppers also agreed to have information on all of their purchased products recorded. The record of all purchases for each shopper was obtained through electronic capture of register receipts.

After completing their shopping trip and checking out the ethnographer then conducted the exit interview and recorded products and brands purchased from shopper’s entire basket.

The exit interview gathered information on:
- Products purchased (category and brand level information)
- Coupon, circular, mobile phone use, etc. used in purchase decisions
- Recall/awareness of displays for product purchases
- Attitudes and perceptions towards retail environment and specific categories. Each shopper was probed on at least three high volume categories - e.g. salty snacks, CSD, etc – so that expanded category specific insights could be provided.
- Total amount spent and by category.
- Method of payment

STORE AUDIT
Each day an audit of specific display types throughout the store was conducted prior to the start of interviewing. The purpose of the store audit was to record and identify the display materials for which to measure impact on decision-making and emotional response. The audit included photos of each display logged as well as coding of the following information:

Display Type:
- Floorstands
- Endcaps
- Powerwings/sidekicks
- In-line/gondola/full-line merchandisers (specialty)
- In-store media
- Digital signage

Location of each display:
- End of aisle (front or back)
- Perimeter/racetrack
- In-aisle
- Front end

Placement of display:
- Primary
- Secondary

Other variables:
- Category and brand the display is advertising
- Static vs. motion
- Product on it vs. no product
- Whether it is interactive
- Whether it has video or audio
THE METHODOLOGY
A New And Innovative Approach

SECONDARY METHODOLOGY
As an overlay to the core methodology, POPAI utilized mobile eye-tracking and EEG on a sub-set of shoppers to understand the following:

- Degree to which displays (as defined earlier) make it into shoppers’ line of sight.
- Identify the display types and locations that generate the most impressions and greatest activation.
- Amount/percentage of time spent engaging with these displays (by audit variables such as display type, location, and placement).
- Degree to which these displays are noticed, stopped at, interacted with and drive purchases.
- What is the emotional response (valence) to these displays?
- What is the shopper’s track or path throughout the store?
- What are the search patterns and navigational strategies shoppers use to find and select products? How much time is spent considering these categories?

SAMPLE
Traditional primary research methods measure introspective opinions. They rely on techniques such as surveys or facilitated focus groups. These measures require a large sample size in order to ensure valid results.

The individual responses analyzed with the secondary methodology exhibit low variability within a specified demographic. In order for us to achieve the linkage between the core methodology and secondary methodology the sub-set of eye-tracked shoppers came from the pool of in-store interviews conducted in the core methodology. Shoppers were not forced to view any specific displays so as to not create bias.

A sample of 210 study participants evenly spread across the four (4) census regions yielded stable and valid results.

ELECTROENCEPHALOGRAM DATA
The primary research tool utilized in the secondary methodology of the study was high-density Electroencephalogram (EEG) data. When groups of neurons are activated in the brain, a small electrical charge is generated, resulting in an electrical field. EEG is a method that is used to measure these fields by placing electrodes on a person’s scalp. The measured signals are then amplified for analysis.

These electrical fields were interpreted and projected onto a high-resolution, three-dimensional representation of a brain. The result is the ability to determine what areas of the brain are activated at specific moments.

Utilizing a standard mobile EEG framework, the testing procedures followed advanced neuroscience-based acquisition and analysis protocol. By running one participant at a time the study was able to maintain absolute quality of EEG data to ensure effective and valid results with statistical confidence.

SYNCHRONIZED EYE-TRACKING
The use of eye-tracking data is common in market research studies. However, adding a real-time interpretation of the brains response to a specific instant in a recording, to interpret why a subject is looking at a target, is not. Correlating EEG and eye-tracking data allows for a time-locked analysis of how shopper interaction plays into the perception of the presented material. By utilizing traditional methods of market research as well as brain response tied to eye-tracking we were able to relate unparalleled accuracy in actual shopper experience.

With eye-tracking and statistical analysis combined with the EEG recording, we were able to evaluate how much effortful processing is necessary for an individual to interpret what he/she sees. With Sands Research proprietary brain imaging software, we measured activity in the orbital frontal lobe and displayed those results second by second in real time. Additionally, results of what percentage of the total study population viewed and which part of the design presentation achieved the largest response. This was achieved by marking when the participant fixates on a specific product or component with a unique event code. This allows for analysis to sort and group responses based on that unique event code.

PARAMETERS AND PROCEDURES
Utilizing a neuromarketing analysis framework the responses of all 210 participants was directly recorded combining EEG and eye-tracking in a real world environment and in real-time. The in-depth study included 64 channels of EEG data along with eye-tracking. While the eye-tracking data can provide interesting insights, its inclusion with EEG data allows the brain activity to be synchronized with specific objects of interest that the participant is fixating on.

The testing parameters and procedures for the retail EEG/Eye-tracking were as follows:

- The sample consisted of 210 participants within the market segments of interest.
- Individuals were recruited to participate in the study. Participants were staggered at 45 or 60-minute intervals to reduce flow congestion.
- Two acquisition teams were deployed into the field into separate markets simultaneously.

Participants were prepped using the following planned sequence:
1. Pre-testing
2. EEG and Eye-tracking prep
3. Recording EEG & Eye-tracking data across 20+ categories
4. Removal of equipment
5. Post questioning sequence
6. Issued incentive

SIGNIFICANCE OF METHODOLOGY
This research project is the first of its kind in both size and breadth to be conducted utilizing such a wide range of data gathering techniques. The triangulation of data and insights sourced from one sample of shoppers in a live retail environment has never been achieved before to this degree, which will be especially relevant in a sea of emerging shopper insights research from a myriad of sources. There is little doubt that the results from the study will prove to be a solid framework through which future shopper market research should be conducted to get a more accurate and complete picture of shopping patterns and behaviors.