Conducted for National Shooting Sports Foundation by Informed Decisions Group, Inc.
(440) 454-0399

NSSF® Report In-Store Shopper Research
An Application of Mobile Eye-Tracking and Post-Shop Surveys

IDC Consulting
An Informed Decisions Group, Inc. Company

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National SHOOTING SPORTS Foundation
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Background & Methodology
In accordance with its directive, National Shooting Sports Foundation (NSSF) contracted Informed Decisions Group, Inc. (IDG) to expand the services and research materials it provides to NSSF membership. This report will offer insight to a variety of NSSF member segments. In particular, it will provide NSSF manufacturer and retailer members with valuable behavioral insight that they can utilize to expand their understanding of customer shopping experiences.

For this project, IDG used its proprietary mobile eye-tracking technology to offer a different perspective on the shopping experience. Eye-tracking research has proven to be of great value to marketers. It has allowed them to gauge the visual attention given to their products and displays and has aided in improving their visual-marketing efforts. Recruited shoppers are fitted with eyeglasses equipped with a camera to track and record retina movement. Additional information provided in the methodology section.

As noted in the article, An Application of Eye-Tracking to Shopper Insights, published in Quirk's Marketing Research Review (http://www.quirks.com/articles/2013/20131211.aspx), the link of customers visual attention to purchase behavior was identified and measured to show that for each additional second of visual attention a product can attract at retail, its odds of purchase increase from 43 to 550 percent depending on the brand. Additionally, it was discovered that there is very little, if any, correlation between what shoppers say they looked at versus what they actually looked at, providing a substantiated benefit from measuring visual attention via eye-tracking versus more traditional methods.

In partnership with NSSF, Informed Decisions Group, Inc. designed an in-store research program to measure and optimize the customer shopping experience for a firearms retailer establishment using mobile eye-tracking measurements joined with post-shop survey data. The results of the research identified strengths and weaknesses from a visual and shopper perspective to optimize the retail environment. The report illustrates the results of the mobile eye-tracking in a couple of ways: 1) visually using heat maps where areas with more heat indicate more attention and 2) providing quantitative results that include; “Percent Noticed”, “Engagement” and “Share of Attention”.

SPECIAL OFFER FOR NSSF MEMBERS

Informed Decisions Group, Inc. has agreed to offer NSSF members a discount of 25% off initial research with them. NSSF members interested in additional information should contact IDG’s Susan Johnston at sjohnston@idg-consulting.com or (440) 454-0399.

About NSSF: The National Shooting Sports Foundation is the trade association for the firearms industry. Its mission is to promote, protect and preserve hunting and the shooting sports. Formed in 1961, NSSF has a membership of more than 10,000 manufacturers, distributors, firearms retailers, shooting ranges, sportsmen's organizations and publishers. For additional information visit www.nssf.org.

About IDG: A full-service behavioral insights firm focusing on shopper insights, customer behavior and consumer and market research. Founded in 2004, Informed Decisions Group, Inc. was created as an alternative to traditional marketing research. The originating team of IDG began their careers on both the client and vendor side of marketing research with companies including P&G, Moen Incorporated, Market Strategies International and Newell-Rubbermaid. For additional information visit www.idg-consulting.com.
Methodology

- Participants were recruited from a local focus group facility in Lexington, Ky., to shop at a firearms retailer while wearing IDG's mobile eye-tracking glasses.
  - When the participants were done shopping, they took a brief post-shopping survey on an iPad.
  - The survey focused on topics regarding shopping habits, preferences and retailer feedback.
- Each participant was recruited for 30 minutes of their time and was incented with $75.
- Participants were screened to ensure they considered themselves active hunters and/or target shooters. Additionally, each participant had to be very interested in firearms, scopes and/or binoculars.
  - Lastly, participants also had to meet standard non-compete and past-participation screening to ensure they and close family members were not employed in a similar outdoor sporting goods or marketing industry.
  - Participants were also screened to ensure they had not participated in a market research study within the past three months.
- Data collection was held on Thursday, Nov. 14, 2013, and Friday, Nov. 15, 2013, from 11am to 7:30pm. Data from a total of 30 participants was collected for mobile eye-tracking and post-shop surveys.
- Three participants were eliminated from the total pool of mobile eye-tracking data due to their accidentally moving the position of the mobile eye-tracking glasses' monocle while shopping and rendering the calibration ineffective.
- Participants shopped mostly for guns and ammunition and for about 20 minutes (on average). Their eye-movement was tracked and recorded while shopping so their visual attention could be quantitatively measured by analyzing their fixations (each time their eye movement stopped and focused on stimuli for at least 230 milliseconds).
Mobile Eye-Tracking Results
Ammunition: Rifle Shelves

Attention Summary – Heat Maps

The color of the Heat Map indicates cumulative density of gaze points on a scale from light green to deep red. Regions of the photo on which the subject glanced briefly (i.e. very few gaze points landed there) will appear with light green highlight, while regions of the photo on which the subject looked for cumulatively longer amounts of time (i.e. a relatively larger number of gaze points landed there) will appear highlighted in red.
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While shopping for rifle ammunition, 70% of the participants noticed Remington-branded ammo followed by HSM (67%), Hornady (63%), Federal (63%) and Federal Premium (63%).

Not only do these five brands attract the most attention from customers, which gives them a strong advantage and highly increased odds of sales given their breakthrough on the shelf, but these brands were also among the most engaging to shoppers.

Ideally, it is great to see an average engagement of 1 second, but, in this case, Remington is garnering 3.01 seconds of engagement from shoppers followed by Federal Premium with 2.63 seconds of engagement.

With each additional second of attention, a brand’s odds of being purchased increases. These brands stand at an advantage given the amount of attention they can attract from shoppers.

While some brands are able to break through the clutter of the shelf, in that they have a high percent of shoppers who noticed them, the true measure is their ability to retain shoppers’ attention and engage for a longer period of time.

When a brand can break through the clutter and be noticed by a high percent of shoppers, it has overcome the first and most difficult hurdle in the aisle: Getting noticed. To strengthen its engagement and better retain attention, communication and package verbiage optimization can create more appealing messages that have increased relevancy to shoppers.
While customers were shopping the ammunition on the pallet, fewer customers noticed each brand, as seen by the “% Noticed” as compared to the previous page’s results for the rifle ammo shelves. The highest percentage of shoppers who noticed a brand was 26% for Winchester and 26% for Estate followed by 22% for Rio and 22% for Remington.

These lower percentages for noticeability suggest that the pallet is not an effective area for ammo merchandising. This is most likely due to a non-intuitive organization where customers have to “hunt & peck” rather than knowing location of ammo based on an organizational structure. Furthermore, the lower percentages for noticeability are most likely also linked to an unsimplified assortment in that there are too many SKUs producing a visual stimuli overload and hindering shoppers from noticing much of what is available to them.

When shopping, customers tend to “chunk” their search process by smaller areas so they can more effectively discover what is available, evaluate their options by storing the brands in their consideration set into memory as they continue their search and then make a purchase decision. When SKU assortments hinder this “chunking” process, brands go unnoticed and sales suffer.

Many retailers have adopted a simplified assortment of fewer SKUs per merchandising area and separation based on the hierarchy of consideration by customers while shopping (e.g., first look for caliber, then look for brand, etc.)

<table>
<thead>
<tr>
<th>SKU Brand</th>
<th>% Noticed</th>
<th>Engagement (In Seconds)</th>
<th>Share of Attention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Winchester</td>
<td>26%</td>
<td>9.26</td>
<td>16%</td>
</tr>
<tr>
<td>Estate</td>
<td>26%</td>
<td>1.24</td>
<td>2%</td>
</tr>
<tr>
<td>Rio</td>
<td>22%</td>
<td>.36</td>
<td>1%</td>
</tr>
<tr>
<td>Remington</td>
<td>22%</td>
<td>2.14</td>
<td>4%</td>
</tr>
<tr>
<td>Kent</td>
<td>19%</td>
<td>.83</td>
<td>1%</td>
</tr>
<tr>
<td>Federal</td>
<td>19%</td>
<td>.77</td>
<td>1%</td>
</tr>
<tr>
<td>Winchester Blind Side</td>
<td>19%</td>
<td>.46</td>
<td>1%</td>
</tr>
<tr>
<td>Federal Black Cloud</td>
<td>11%</td>
<td>.33</td>
<td>1%</td>
</tr>
<tr>
<td>Heavy Metal</td>
<td>11%</td>
<td>.48</td>
<td>1%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Package Element</th>
<th>% Noticed</th>
<th>Engagement (In Seconds)</th>
<th>Share of Attention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kent &quot;Fasteel&quot; – Name</td>
<td>7%</td>
<td>.07</td>
<td>0%</td>
</tr>
<tr>
<td>Federal Black Cloud – Gauge</td>
<td>7%</td>
<td>.05</td>
<td>0%</td>
</tr>
<tr>
<td>Winchester – Gauge</td>
<td>4%</td>
<td>.33</td>
<td>1%</td>
</tr>
<tr>
<td>Remington – Gauge</td>
<td>4%</td>
<td>.40</td>
<td>1%</td>
</tr>
<tr>
<td>Federal – Gauge</td>
<td>4%</td>
<td>.29</td>
<td>0%</td>
</tr>
<tr>
<td>Kent – Gauge</td>
<td>4%</td>
<td>.16</td>
<td>0%</td>
</tr>
<tr>
<td>Heavy Metal – Gauge</td>
<td>4%</td>
<td>.02</td>
<td>0%</td>
</tr>
<tr>
<td>Kent Fast Lead</td>
<td>4%</td>
<td>.05</td>
<td>0%</td>
</tr>
<tr>
<td>Rio-Gauge</td>
<td>4%</td>
<td>.01</td>
<td>0%</td>
</tr>
</tbody>
</table>
Ammunition: Slugs

Attention Summary – Heat Maps

The color of the Heat Map indicates cumulative density of gaze points on a scale from light green to deep red. Regions of the photo on which the subject glanced briefly (i.e. very few gaze points landed there) will appear with light green highlight, while regions of the photo on which the subject looked for cumulatively longer amounts of time (i.e. a relatively larger number of gaze points landed there) will appear highlighted in red.
Ammunition - Slugs

- While shopping for slugs, shoppers noticed, on average, more brands than the palette and the rifle shelves, suggesting that the organization was more effective at separating the SKUs in a way that shoppers could better “chunk” their search and notice more of what was available.

- Though the percentages for noticeability were still not as high as on the rifle shelf, this suggests that there is still room for improvement based on using an organization that is more intuitive to how customers shop slugs (e.g., better separation by size, brand, etc.)

- The low level of engagement overall for all slug brands suggests that this may be a product category where shoppers do not need to take as much time in considering what they are going to buy, but rather find the size and brand they need or usually purchase and then buy it with little consideration of alternative brands.

- Given the insights from the previous bullet, this could be a product category where there is little perceived differentiation between alternatives, and an opportunity exists for the manufacturers to increase their share by creating points of differentiation to persuade customers into taking more time to evaluate the SKUs.

- From a retailer’s perspective, this lower level of engagement, overall, suggests that this could be a category where customers want to find their items fast and move on. This situations lends itself to a “find it fast” section for this category with a simplified assortment consisting of the best-selling items.
Ammunition: Endcap

Attention Summary – Heat Maps

The color of the Heat Map indicates cumulative density of gaze points on a scale from light green to deep red. Regions of the photo on which the subject glanced briefly (i.e. very few gaze points landed there) will appear with light green highlight, while regions of the photo on which the subject looked for cumulatively longer amounts of time (i.e. a relatively larger number of gaze points landed there) will appear highlighted in red.
The ammunition endcap proved to be rather successful in that most of the brands garnered a high percentage for noticeability and three of the brands were also able to retain the attention of shoppers rather well by having an average engagement time close to one second or slightly above.

Endcaps usually do not produce much engagement given that they are not usually a destination for shoppers, but rather perceived as a potential area of interest that they glance at on the way to their destination area.

Aguila and Blazer were the most successful brands at engaging the shoppers, and Remington UMC came in third.

This could be an area to consider for a “find it fast” section as mentioned on the previous page for slugs.

<table>
<thead>
<tr>
<th>SKU Brand</th>
<th>% Noticed</th>
<th>Engagement (In Seconds)</th>
<th>Share of Attention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aguila</td>
<td>48%</td>
<td>1.19</td>
<td>2%</td>
</tr>
<tr>
<td>HSM</td>
<td>44%</td>
<td>.49</td>
<td>1%</td>
</tr>
<tr>
<td>Blazer</td>
<td>37%</td>
<td>1.13</td>
<td>2%</td>
</tr>
<tr>
<td>Remington UMC</td>
<td>33%</td>
<td>.85</td>
<td>1%</td>
</tr>
<tr>
<td>American Eagle</td>
<td>30%</td>
<td>.30</td>
<td>1%</td>
</tr>
<tr>
<td>Blazer Brass</td>
<td>30%</td>
<td>.21</td>
<td>0%</td>
</tr>
<tr>
<td>HPR</td>
<td>22%</td>
<td>.12</td>
<td>0%</td>
</tr>
<tr>
<td>Winchester</td>
<td>22%</td>
<td>.41</td>
<td>1%</td>
</tr>
<tr>
<td>Remington</td>
<td>19%</td>
<td>.18</td>
<td>0%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Package Element</th>
<th>% Noticed</th>
<th>Engagement (In Seconds)</th>
<th>Share of Attention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remington – Gauge</td>
<td>7%</td>
<td>.05</td>
<td>0%</td>
</tr>
<tr>
<td>HPR – Gauge</td>
<td>7%</td>
<td>.03</td>
<td>0%</td>
</tr>
<tr>
<td>HSM – Gauge</td>
<td>4%</td>
<td>.01</td>
<td>0%</td>
</tr>
<tr>
<td>Blazer Brass – Gauge</td>
<td>4%</td>
<td>.01</td>
<td>0%</td>
</tr>
</tbody>
</table>
Handguns

Attention Summary – Heat Maps

The color of the Heat Map indicates cumulative density of gaze points on a scale from light green to deep red. Regions of the photo on which the subject glanced briefly (i.e. very few gaze points landed there) will appear with light green highlight, while regions of the photo on which the subject looked for cumulatively longer amounts of time (i.e. a relatively larger number of gaze points landed there) will appear highlighted in red.
One of the primary insights uncovered when customers shopped handguns is graphically called out on the previous page with the heat map. Looking at the attention pattern, it appears that peg-type display of handguns is hindering the ability for the guns in the middle to break through the clutter and attract attention.

This suggests that customers scan from the outsides of the display and that SKUs in the middle are not getting noticed due to the outside SKUs cannibalizing attention. This shows that the balance of visual stimuli could use correction.

Specifically given this display, it appears that a vertical organization divided into three sections that better separate the display would help customers “chunk” their visual search, and the items in the middle would not go unnoticed.

Additionally, the placement of the non-handguns as a “framing” around the handguns is most likely lending to this non-intuitive organization. Having them placed in a vertical row may draw more attention to them, for as they appear to be of ancillary importance given their location in the framing positioning.

In this display, S&W, Ruger, Beretta, Taurus, Sig Sauer and Glock are the most successful brands of handguns at breaking through the clutter and even more so at retaining attention and engaging shoppers. The remaining brands rather unable to engage shoppers and therefore have lower odds of being purchased.
Post-Shop Survey Results

Post-shopping survey questions tailored to client needs help explain customer shopping behavior and client knowledge. Useful for retailer or manufacturer.
Post-Shop Survey Results

- 66% of the participants shop at this retailer 4+ times per year while only 10% were not this retailer’s customers.
- After taking part in this research, all of the non-customers said they would be back to shop this retailer more often.
- Large selection (37%) and convenient location (27%) were the driving factors for why customers shopped at this retailer.

***Shop Frequency:***

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>10+ times per year</td>
<td>30%</td>
</tr>
<tr>
<td>7 - 9 times per year</td>
<td>13%</td>
</tr>
<tr>
<td>4 - 6 times per year</td>
<td>23%</td>
</tr>
<tr>
<td>1 - 3 times per year</td>
<td>23%</td>
</tr>
<tr>
<td>I don’t shop</td>
<td>10%</td>
</tr>
</tbody>
</table>

***Primary Reason to Shop:***

<table>
<thead>
<tr>
<th>Reason</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large selection</td>
<td>37%</td>
</tr>
<tr>
<td>Convenient location</td>
<td>27%</td>
</tr>
<tr>
<td>What I need is always in stock</td>
<td>13%</td>
</tr>
<tr>
<td>Low prices</td>
<td>7%</td>
</tr>
<tr>
<td>Ease of finding what I’m looking for</td>
<td>3%</td>
</tr>
</tbody>
</table>

Q5. How often do you shop at this retailer? Please select one. (N=30)
Q6. What is your primary reason for shopping at this retailer? Please select one. (N=30)
Most participants said that nothing needs to be improved at this retailer (20%) or that they would like lower prices (20%).

17% of the participants felt that this retailer needed to improve on items being in stock as well as the ease of finding what they are looking for (17%).

20% of the participants ended up purchasing something that day that they were not planning on.

Q7. Which one of the following would you most like this retailer to improve? Please select one. (N=30)
Q8. Did you purchase any hunting/shooting related item(s) today that you had not planned on purchasing? Please select one. (N=30)
Post-Shop Survey Results

- Of those who made an unplanned purchase, the factors that most triggered the purchase were the item(s) being on sale or having a lower price than they have seen and/or it was something they have always wanted.
- The most influential factor regarding product information to help with purchase decisions come from friends/family (73%) followed by manufacturer websites/e-newsletter (53%) and retail store staff (47%).

Why Made Unplanned Purchase:
Rank Order 1=Most Important / 5= Least Important

- On sale/lower price than I have seen: 2.8
- Always wanted one: 2.8
- New product I hadn’t seen before: 3.2
- No reason, just wanted it: 3.7
- When I saw it, I was reminded that I needed it: 4.2

*Influential Factors for Product Information

- Friends/family: 73%
- Manufacturer websites/e-newsletters: 53%
- Retail store staff: 47%
- Online blogs: 33%
- Print catalogs: 27%
- Print magazines: 23%
- Retailer websites/e-newsletters: 23%
- Television shows: 20%

Q9. Please rank the following reasons why you purchased the item(s) where 1 is the most important reason and 5 is the least important reason. (N=6)
Q10. Where do you get product information to help form your purchase decision? Please select all that apply. (N=30)
* Multiple mention; will not sum to 100%

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Post-Shop Survey Results

- Looking at the impact vs. what needs improvement, the only major gap that exists for this retailer is the availability of items in stock.
- “What I need is always in stock” has moderate impact on why shoppers choose to shop at a retailer, but at the same time this was also indicated as a top area that needs improvement.
These participants participate in a number of outdoor activities including target shooting (83%), fishing (77%) and hunting (73%).

When asked to specify a single outdoor activity in which they are most engaged, target shooting (37%) was the most popular activity followed by hunting (30%), then fishing (27%).

Q11. In which of the following outdoor activities do you participate? Please select all that apply. (N=30)

Q12. If you had to choose ONLY ONE, which outdoor activity would you say is your primary one? Please one. (N=30)

* Multiple mention; will not sum to 100%
Post-Shop Survey Results

- 37% of the shoppers regularly watch hunting and fishing shows.
- Of those who regularly watch these shows, the most watched are The Crush and Kentucky Afield.

Regularly Watch Hunting & Fishing Shows

![Yes and No Pie Chart]

- 37% Yes
- 63% No

Shows Most Watched

- The Crush
- Kentucky Afield
- Top-Shot
- History-Channel
- Bill-Jordan-Outdoors
- Bill-Dance
- Fish-TV
- Realtree
- Drury
- Outdoor-Channel
- Discovery-Channel
- Ron-RaglinFLW
- Impossible-Shots
- Bassmasters
- Bass-Pros
- Spirit-of-the-Wild

Q13. Do you regularly watch any hunting or fishing shows? Please select one. (N=30)
Q14. What hunting or fishing shows do you watch? (N=11)
Post-Shop Survey Results

- 50% of this retailer's customers remember seeing advertising for the retailer.
- Of those customers who remember seeing advertisements, the majority of them saw ads on TV (60%) followed by web searches (33%), newspapers (33%) and email (27%).

Q21. Do you recall seeing any advertising for this retailer? Please select one. (N=30)
Q22. Where do you remember seeing advertising for this retailer? Please select all that apply. (N=15)
* Multiple mention; may not sum to 100%
Post-Shop Survey Results

Q23. Do you shop online for Hunting, Fishing and Camping gear? Please select one. (N=30)

- Yes: 87%
- No: 13%

Q24. When shopping online, do you read product reviews to aid in your decision making process on purchasing a particular product? Please select one. (N=26)

- Yes: 96%
- No: 4%
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