OOH Effectiveness: Sales & Brand Metric ROI Analysis
Automotive Category Summary

December 2023
Automotive
- Ad Spend Trends
- Optimizing Sales RROAS
- Optimizing Brand Metric ROAS
Vivvix Automotive Spend by Year

OOH increased in 2022 but is not back to 2019 (pre covid) levels

Vivvix $bn spend by channel by year

<table>
<thead>
<tr>
<th>Year</th>
<th>TV</th>
<th>OOH</th>
<th>Radio</th>
<th>Digital Display</th>
</tr>
</thead>
<tbody>
<tr>
<td>2022</td>
<td></td>
<td>0.14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2021</td>
<td></td>
<td>0.09</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2020</td>
<td></td>
<td>0.08</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2019</td>
<td></td>
<td>0.19</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td></td>
<td>0.21</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2017</td>
<td></td>
<td>0.25</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Vivvix % spend by channel by year

<table>
<thead>
<tr>
<th>Year</th>
<th>TV</th>
<th>OOH</th>
<th>Radio</th>
<th>Digital Display</th>
</tr>
</thead>
<tbody>
<tr>
<td>2022</td>
<td></td>
<td></td>
<td>2.0%</td>
<td></td>
</tr>
<tr>
<td>2021</td>
<td></td>
<td></td>
<td>1.2%</td>
<td></td>
</tr>
<tr>
<td>2020</td>
<td></td>
<td></td>
<td>1.2%</td>
<td></td>
</tr>
<tr>
<td>2019</td>
<td></td>
<td></td>
<td>2.3%</td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td></td>
<td></td>
<td>2.2%</td>
<td></td>
</tr>
<tr>
<td>2017</td>
<td></td>
<td></td>
<td>2.4%</td>
<td></td>
</tr>
</tbody>
</table>

OOH includes cinema. Vivvix has a 39% uplift applied to OOH (as OAAA estimates Vivvix only captures 72% of total OOH spend)
SMI Automotive Spend by Year

SMI shows higher OOH spends in 2022 than 2019 (unlike Vivvix)

SMI $bn spend by channel by year

SMI % spend by channel by year
Automotive: Optimizing Sales RROAS using MMM Sales Curves

Increasing OOH allocation up to 5% and downweighting TV to 70% increases ROI by 5%

Sales response curves to identify optimal spend levels

Using the response curves to optimize current spend levels

Recommendations and Results

- Decrease TV to 70% and upweight OOH to up to 5%, Digital to up to 24%
- Extra $69.23m revenue generated using the same budget
- ROAS increases from 6.25 to 6.57
- +5% RROAS increase

Scenario based on average brand 2022, Vivvix spend
Constraints applied: Minimum 1% Print allocation
Automotive: Optimizing Sales RROAS for Small, Medium and Large brands

Optimization recommends incremental increases to OOH allocation for all brands regardless of size.

**Vivvix average 2022 brand spend**

**Constraints applied:** Minimum 1% Print allocation

### Large Brands
- **Spend range:** $317-$827m
- Increase OOH from 1% up to 4%
- 2% improvement in RROAS

### Medium Brands
- **Spend range:** $83-$245m
- Increase OOH from 0.35% up to 6%
- 10% improvement in RROAS

### Small Brands
- **Spend range:** $0-$78m
- Increase OOH from 3% up to 13%
- 15% improvement in RROAS

**Current vs Optimized Budget Allocation by Brand Size**

- **TV**
- **OOH**
- **Print**
- **Radio**
- **Digital**
Automotive: Optimizing Key Brand Metrics

Optimization recommends incremental increases to OOH allocation to improve brand metric scores

Vivvix average 2022 brand spend

Constraints applied: Min 1% Print allocation

Current OOH 1%

Brand Awareness
Increase OOH from 1% up to 19%
19% improvement in ROAS (Brand awareness points per $m)

Consideration
Increase OOH from 1% up to 14%
11% improvement in ROAS (Consideration points per $m)

Purchase Intent
Increase OOH from 1% up to 13%
19% improvement in ROAS (Purchase Intent points per $m)
Automotive Category Summary
To optimize sales ROAS and Brand metrics, OOH allocations should be incrementally increased across all measures.

Vivvix Automotive spends, mix – current and trend

Automotive best action for OOH (and where from)

<table>
<thead>
<tr>
<th></th>
<th>Automotive – Current mix</th>
<th>Brand Awareness - Optimized</th>
<th>Consideration - Optimized</th>
<th>Purchase Intent - Optimized</th>
<th>Sales - Optimized</th>
</tr>
</thead>
<tbody>
<tr>
<td>TV</td>
<td>72%</td>
<td>48%</td>
<td>54%</td>
<td>46%</td>
<td>70%</td>
</tr>
<tr>
<td>OOH</td>
<td>1%</td>
<td>19%</td>
<td>14%</td>
<td>13%</td>
<td>5%</td>
</tr>
<tr>
<td>Print</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>Radio</td>
<td>2%</td>
<td>18%</td>
<td>18%</td>
<td>27%</td>
<td>0%</td>
</tr>
<tr>
<td>Digital</td>
<td>23%</td>
<td>15%</td>
<td>14%</td>
<td>14%</td>
<td>24%</td>
</tr>
</tbody>
</table>

OOH is currently only at 1% of an average budget for an Automotive brand.

The analysis recommends incremental increases to OOH of up to 5% and 19% to optimize sales and brand metrics.

The increased allocation for OOH should come from TV, Digital and Print. Radio should be increased for Brand metrics, and TV increased for Sales effects.

OOH includes cinema, Vivvix has a 39% uplift applied to OOH (as OAAA estimate Vivvix only captures 72% of total OOH spend)

Constraints
applied: Min 1% Print allocation
Appendix

The Benchmarketing OOH Media Effectiveness analysis was sponsored by
The Foundation for Outdoor Advertising Research and Education (FOARE), a 501 (c) (3) not for profit, charitable organization.
Benchmarketing is a UK-based strategic marketing effectiveness consultancy and part of the Omnicom Media Group.
Methodology: Optimizing Sales Revenue ROAS
Harnessing the power of multiple MMMs to create response curves which demonstrate RROA at different spend levels

1.) Gather multiple brand MMM results – combine to create average response curves by media channel for each category

2.) Use those response curves to estimate the impact (Revenue ROAS) for the ‘average brand’ spend by channel in a category

3.) Then, taking that same ‘average brand spend’ – run an optimisation using the curves, which optimise diminishing returns to give us an optimal Revenue ROAS

We have access to hundreds of brand MMMs (market mix models of sales vs media activity by channel). We have anonymised and aggregated results from USA brand MMMs to provide category level response curves.

For each category we have created response curves by media channel. These response curves allow us to optimise investment across media channels, both theoretically and practically, applying realistic constraints as to the maximum usage of each channel.

We can show the average and maximum spend levels generally achieved in the category to guide the safe zone for optimisation.

ROAS – return on advertising spend. To be clear we report Revenue ROAS, not profit ROI.
Methodology: Optimizing Brand Metrics

Pooled modelling of key brand metrics to create response curves to run optimisations

1.) Gather **data** by brand on **key brand metrics** (YouGov BrandIndex) and **media spends** by channel (Vivvix).

2.) Create a **large dataset** to allow for ‘pooled modelling’. Data is collated for all brands available within a category. Data is monthly - over the period 2019-2022.

3.) **Econometric models** are then built for each of three key brand metrics using the pooled dataset:
   - Brand Awareness, Consideration, Purchase Intent

4.) **Response curves** are also reported by the models, and from those response curves we are able to **optimise total media spend** by **channel** for each of our three **key brand metrics**.
### OOH’s Four Media Categories

SMI attributes OOH spends into these categories plus an ‘Other’ category

(Other = spend that could not be definitively assigned to one of the four primary categories)

#### Number of Out of Home Displays

<table>
<thead>
<tr>
<th>BILLBOARDS</th>
<th>STREET FURNITURE</th>
<th>TRANSIT</th>
<th>PLACE-BASED</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Billboards</strong></td>
<td><strong>Street Furniture</strong></td>
<td><strong>Transit</strong></td>
<td></td>
</tr>
<tr>
<td>Bulletins 173,985</td>
<td><strong>Bus Shelters</strong> 64,838</td>
<td><strong>Airport</strong> 27,970</td>
<td><strong>Arenas/Stadiums</strong> 1,338</td>
</tr>
<tr>
<td>Digital Billboards 11,500</td>
<td><strong>Urban Street Furniture</strong> 57,866</td>
<td><strong>Digital Airport</strong> 3,150</td>
<td><strong>Cinema</strong> 34,800</td>
</tr>
<tr>
<td>Posters 145,000</td>
<td><strong>Bus Benches</strong></td>
<td><strong>Buses</strong> 1,354,842</td>
<td><strong>Digital Place-Based</strong> 750,000</td>
</tr>
<tr>
<td>Junior Posters 19,000</td>
<td><strong>Bike Kiosks</strong></td>
<td><strong>Rail/Subway</strong> 356,773</td>
<td><strong>Interior Exterior Printed</strong> 550,406</td>
</tr>
<tr>
<td>Wall Murals 2,310</td>
<td><strong>Newstands</strong></td>
<td><strong>Digital Rail/Subway/Transit</strong> 16,466</td>
<td><strong>Gas Stations</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Outdoor Kiosks</strong></td>
<td><strong>Mobile Billboards</strong> 4,515</td>
<td><strong>Convenience Stores</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Urban Panels</strong></td>
<td><strong>Taxis</strong> 21,000</td>
<td><strong>Restaurants/Bars</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Digital Street Furniture</strong> 10,815</td>
<td><strong>Digital Taxis/Rideshare</strong> 71,400</td>
<td><strong>Medical Point of Care</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Bus Shelters</strong></td>
<td><strong>Vehicle Wraps</strong> 441,000</td>
<td><strong>Office Buildings/Elevators</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Newstands</strong></td>
<td></td>
<td><strong>Grocery Stores</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Outdoor Kiosks</strong></td>
<td></td>
<td><strong>Shopping Malls</strong> 24,255</td>
</tr>
<tr>
<td></td>
<td><strong>Urban Panels</strong></td>
<td></td>
<td><strong>Digital Shopping Malls</strong> 12,507</td>
</tr>
</tbody>
</table>

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**Note:** Sections underlined indicate primary focus areas. The table above provides a detailed breakdown of the number of displays in each category.