

BENCHMARKS FOR OUT OF HOME MEDIA

GENERATING INSIGHTS FROM
AN ANALYSIS OF BEST-IN-CLASS
CASE STUDIES

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Benchmarks for Out of Home Media

Executive Summary

According to 2018 figures, Out of Home (OOH) media comprises 4% of overall media spending in the U.S. or \$8.0 billion.¹ Spending in the category increased by 4.5% from 2017 to 2018 at a time when other traditional media growth remained flat or declined. A large portion of OOH's continued growth has been attributed to the industry's embracing of digital technology - both within the medium and across mobile and online platforms. Digital billboards enable enhanced daypart and contextual advertising opportunities as well as the ability to alter messaging in near real-time. With consumers increasingly on-the-go and armed with their smartphones, OOH media also encourages online search, social media engagement, and app downloads. In fact, a Nielsen study finds OOH media is second only to television for prompting consumers to search online after seeing an advertisement.²



OOH media continues to be an important part of media plans and is becoming the lead medium in many campaigns, especially those with brand activations.^{3,4} Brand activations are experiential marketing activities intended to generate consumer awareness and engagement with the brand in a real-life marketing environment, which is increasingly more difficult to do in today's very digital world.

It's well understood by most brands that OOH advertising is effective in generating consumer awareness, changing attitudes, and influencing behavior. A multitude of practitioner and agency research advocates this very fact. However, much of this research is often narrow in scope and frequently limited to small sample sizes, to one OOH media format, or to select key performance indicators (KPIs).

The purpose of this study is to expand the scope of current OOH research and to generate benchmark statistics for the memory, attitudinal, and behavioral KPIs for OOH media campaigns. To accomplish this, 141 case studies from the Out of Home Advertising Association of America (OAAA) library were analyzed producing nine benchmarks and other campaign outcome data points. Additional best practices for campaign planning and evaluation are provided.

Methods and Definitions

This study analyzed 141 cases from the OAAA's case study library. The selected cases were comprised of 93 cases from all of the Out of Home Media Plan Awards contest from 2008 through 2017 and 48 of the highest scoring cases with respect to strategy and effectiveness from the OAAA's local case study library from 2016 through 2018.⁵

Cases studies were analyzed for the expressed purpose of generating benchmarks for the most frequently reported KPIs for OOH media campaigns. Additional insights were produced based on a comparison of a case study's stated objectives compared to its reported KPIs.

Case studies included in the analysis differed greatly with respect to the number and size of markets where OOH media was placed, the type of OOH media used, the type of industries advertised, and the stated campaign objectives and campaign length. With these differences in mind, calculated benchmarks produced by this report should only be used as a general guide for media planning.

Definition: Campaign Objectives

Benchmarks produced by this study are derived from the stated communication objectives and KPIs reported in each case study. Communication objectives typically fall within three areas of desired consumer response: cognitive, affective, and behavioral.

Cognitive objectives are intended to increase consumer memory or knowledge. This may include ad, brand, or product recall or recognition. It also includes increasing consumer understanding about product features and attributes, educating consumers on how a product works, informing consumers what a brand stands for, and so on.

Affective objectives are intended to change consumer attitudes and beliefs about the product/brand, such as affinity toward product/brand, intention to visit a store, or viewing the product/brand along a desired trait continuum such as innovativeness, relevance, etc.

Behavioral objectives are intended to drive consumer action. This includes product purchase or event attendance, which are product or brand choice behaviors typically associated with the *terminal* point in a consumer's decision journey. Campaign objectives can also include *intermediate* communication behaviors, which are incremental steps consumers frequently take before product or brand choice is made. These

intermediate communication behaviors include talking to others about the product or brand, following the brand on social media, visiting a store, or searching for the product or brand online to name just a few.

Descriptive Statistics

To better understand benchmark data presented in this analysis, case studies are first described in terms of type of OOH media formats, media planning characteristics, stated campaign objectives, and industry.

As a category, billboards were used in 81% of campaigns analyzed in this report, street furniture in 39%, transit in 50%, and place-based in 25% (see Table 1). Campaigns were predominantly from Top 25 markets (68%) and included an average of 3.0 markets. The average campaign length was 12.4 weeks with average weekly impressions of 4.4 million (see Table 2).

Fifty-six percent of campaigns contained a cognitive objective, 21% contained an affective objective, and 65% contained a behavioral objective. The average number of stated objectives per campaign was 1.6 (see Table 3).

Table 4 lists all the industries associated with the 141 case studies. Entertainment, retail apparel, professional services, and CPG (food and beverage) comprised 47% of all case studies.

Table 1 - Out of Home Media Formats¹

Billboards		Street Furniture	
Bulletins	79 (56.0%)	Bus Shelters	44 (31.2%)
Digital Billboards	61 (43.3%)	Urban Furniture	36 (25.5%)
Posters	32 (22.7%)		
Wall Murals	30 (21.3%)		
Transit		Place-based	
Airport/Rail	55 (39.0%)	Cinema	15 (10.6%)
Bus	37 (26.2%)	Airborne	3 (2.1%)
Taxi	16 (11.3%)	Resort	1 (0.7%)
Mobile Billboards	9 (6.4%)	Stadium	1 (0.7%)
		Interior Place-based	4 (2.8%)
		Storescapes	6 (4.3%)
		Shopping Malls	10 (7.1%)
		Gas Stations	2 (1.4%)
		Brand Activations	9 (6.4%)
		Other	2 (1.4%)
Other Media Format Statistics			
Average number of formats used in a campaign			3.1
Campaigns with a mobile component			18 (12.8%)
Campaigns with brand ambassadors / street teams			10 (7.1%)

1. 141 total cases. Counts (percentages) do not add up to 141 (100%) as many companies reported using more than one OOH media format in a campaign.

Table 2 - Media Planning

Campaigns by Markets ¹		Campaign Length ²	
Average number of markets in a campaign	3.0	Average length (weeks)	12.4
Covering top 25 markets	95 (67.9%)	Media Weight ³	
Covering markets 26+	31 (22.1%)	Average OOH impressions / week	4,388,070
Covering a mix of top 25 and 26+ markets	14 (10.0%)	Average mobile impressions / week	23,190

1. 140 cases reported specific markets. Market delineation is based on The Nielsen Company's 2018 DMA ranking.

2. 137 cases reported campaign length.

3. 35 cases reported OOH impressions and campaign length, and 4 cases reported mobile impressions and campaign length.

Table 3 - Stated Campaign Objectives¹

Cognitive		Affective		Behavioral
Product awareness	57 (40.4%)	Purchase intent	3 (2.1%)	<u>Terminal Behaviors</u>
Product knowledge	26 (18.4%)	Attitude change	26 (18.4%)	Sales 36 (25.5%)
				Enrollment/applications 8 (5.7%)
				Ratings 7 (5.0%)
				Attendance 6 (4.3%)
				<u>Intermediate Behaviors</u>
				Buzz/Word-of-Mouth 25 (17.7%)
				Store visits 12 (8.5%)
				Website traffic 8 (5.7%)
				Brand activation engagement 6 (4.3%)
				Inquiry 4 (2.8%)
				Product trial 2 (1.4%)
				Social media engagement 1 (0.7%)
				App download 1 (0.7%)

1. Counts (percentages) do not add up to 141 (100%) as many companies reported having more than one objective in a campaign. The average number of stated objectives per campaign is 1.6.

Table 4 - Industries¹

Industry Categories					
Air Travel	6 (4.3%)	CPG – Health & Beauty	1 (0.7%)	Media	1 (0.7%)
Amusement	6 (4.3%)	Education	5 (3.5%)	Professional services	15 (10.6%)
Apps	2 (1.4%)	Entertainment	23 (16.3%)	PSA	4 (2.8%)
Automotive	4 (2.8%)	Fitness Center	3 (2.1%)	QSR	5 (3.5%)
Banking	4 (2.8%)	Government Services	4 (2.8%)	Restaurants	2 (1.4%)
Beer	2 (1.4%)	Grocery	3 (2.1%)	Retail Apparel	16 (11.3%)
Consumer electronics	7 (5.0%)	Healthcare	2 (1.4%)	Telecommunications	3 (2.1%)
CPG – Detergents	1 (0.7%)	Hotels	1 (0.7%)	Tourism	5 (3.5%)
CPG – Food & Beverage	12 (8.5%)				

1. 140 cases reported the industry.

Results

Industry Benchmarks

The primary objective of this research is to establish industry benchmarks for the KPIs for OOH media campaigns. Across campaigns having the same KPI, data is averaged using the arithmetic mean. Outliers are removed using the interquartile range method.⁶

Some KPI data can be expensive and difficult to collect leading to small samples and few data points from which to draw meaningful conclusions. While averages can be calculated from any sample size having more than one data point, the error in identifying the true average of a sample (called standard error) is large for small samples. Standard error decreases as the sample size increases. While 141 cases were included in this study, not all cases reported the same KPI thereby making some benchmarks more vulnerable to standard error.

When interpreting the averages of small samples, like some benchmarks in this study, it's important to not only review the number of observations used to derive the benchmark but also its standard error. A more recognizable and accessible form of standard error is known as "margin of error", which is frequently reported in poll research. For this benchmark study, the reported margin of error indicates that the true average for a KPI could be plus or minus the margin of error on either side of the calculated and reported average. Relative to the unit of measure and range of the sample, smaller margins of error are preferred.

With the understanding that more observations are desired and to facilitate a more expeditious comprehension of the calculated averages, benchmarks are organized into two groups: those having fewer than five observations and those with five or more observations. Those with five or more observations can be viewed as more reliable predictors of campaign outcomes and more helpful in determining the true added value of including OOH media in advertising campaigns (see Table 5). Those with less than five observations are reported only to satiate curiosity and should not be used to definitively inform media planning (see Table 6).

As a KPI, earned media impressions are listed separately from Tables 5 and 6 as case study authors quantified mentions of OOH campaigns in the press quite differently from case to case (see Table 7).

Table 5 - Campaign KPI Benchmarks

Cognitive Measure	Min	Max	Observations	Benchmark ¹	Margin of Error
Product Recall	4.0%	81.0%	9	32.6%	± 17.4%
Affective Measure	Min	Max	Observations	Benchmark ¹	Margin of Error
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Behavioral Measure	Min	Max	Observations	Benchmark ¹	Margin of Error
Sales ²	3.0%	100.0%	34	23.8%	± 8.1%
Brand activation impressions / week ³	417	62,500	9	15,916	± 16,154
Store visits ²	2.0%	129.0%	8	33.7%	± 38.3%
CTR	0.17%	5.32%	6	1.66%	± 2.07%
Likes/shares/post / week ³	13	22,487	6	7,504	± 11,224
Social media views / week ³	121,250	19,007,500	6	5,121,886	± 8,141,503
Website visits ²	15.0%	62.0%	6	34.8%	± 18.0%
Enrollment ²	8.0%	240.0%	5	71.9%	± 124.9%

1. Benchmarks represent the added value, or percent increase, of including OOH media in a campaign. Benchmarks are calculated for KPIs having 5 or more observations.

2. Percent change KPI, e.g., the average increase in sales is 23.8%.

3. Numerical KPI, e.g., the average number of brand activation impressions per week is 15,916.

Table 6 - Other Campaign KPI Averages

Cognitive Measure	Min	Max	Observations	Average ¹
Ad Recall	15.0%	49.0%	3	35.7%
Affective Measure	Min	Max	Observations	Average ¹
Affinity ²	4.0%	25.0%	3	15.7%
Behavioral Measure	Min	Max	Observations	Average ¹
Attendance ²	10.0%	20.0%	4	16.3%
Website visits / week ³	1,500	62,500	4	45,573
Ratings ²	14.0%	133.0%	3	65.0%
Orders ²	13.0%	20.0%	3	17.7%
ROI	104.0%	250.0%	3	156.0%
Text messages / week ³	71	131	2	101
Social media followers / week ³	32	1,250	2	641
Donations ²	4.0%	13.0%	2	8.25%
Applications ²	34.0%	380.0%	2	207.0%
Inquiries ²	20.0%	21.0%	2	20.5%
Sales Leads ²	15.0%	81.0%	2	48.0%

1. Average are calculated for KPIs having 2 to 4 observations. Actual campaign results are reported for KPIs with only 1 observation.

2. Percent change KPI, e.g., the average increase in event attendance is 16.3%.

3. Numerical KPI, e.g., the average number of visits to a website is 45,573.

Table 7 - Earned Media as a Benchmark

Press Mention	Min	Max	Observations	Average
Earned media impressions / week	17.3 MM	535 MM	4	155.3 MM
Earned media outlets, number of	1	2	3	1.25
Earned media value (U.S. \$)	\$152,000	\$700,000	2	\$426,000
Earned media ¹ (only stated as receiving it)	---	---	32	22.7%
Earned media ² (reporting it in any form)	---	---	42	29.8%

1. Some campaigns only reported having received earned media impressions without quantifying those impressions, such as the actual number of earned impressions, the number of media outlets reporting the story, or the value of earned impressions, i.e., 32 of the 141 campaigns in this study (22.7%) reported receiving earned media impressions but did not quantify impressions.

2. The average number of campaigns reporting earned media impressions in any form whether quantified or unquantified, i.e., 42 of the 141 campaigns in this study (29.8%) reported receiving earned media impressions in any form.

Industry Benchmarks

General Discussion

With 86% of campaigns reporting a behavioral KPI, it was the most frequently reported outcome measure. This is not entirely surprising given that 65% of campaigns had a stated objective that was behavioral in origin. Despite being frequently stated as an objective, cognitive and affective KPIs were not reported and are therefore underrepresented in this study's benchmark analysis. The deficiency of cognitive and affective KPIs may be related to the time and expense associated with obtaining consumer product knowledge or attitudinal responses, which are typically collected through survey instruments. It may also be tied to the relative ease in collecting some behavioral outcomes that are captured through existing reports firms use during the normal course of business.

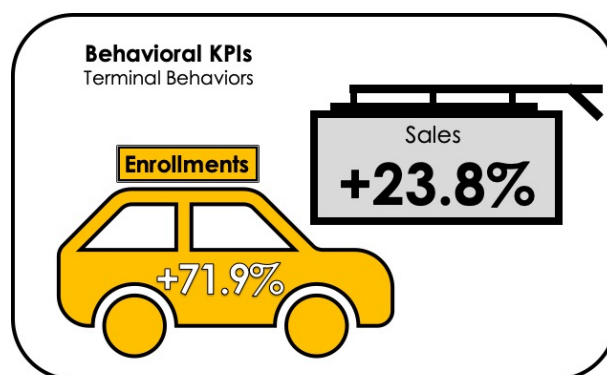
Cognitive KPIs

Across nine observations, the average **product recall** for best-in-class case studies is 32.6%. For perspective, 78% of the observations came from Top 25 markets but the represented industries were not skewed toward a particular vertical. The average campaign reporting product recall covered 3.3 markets, spanned 17 weeks, and included four OOH media formats. Two campaigns utilized a brand activation.



Terminal Behavioral KPIs

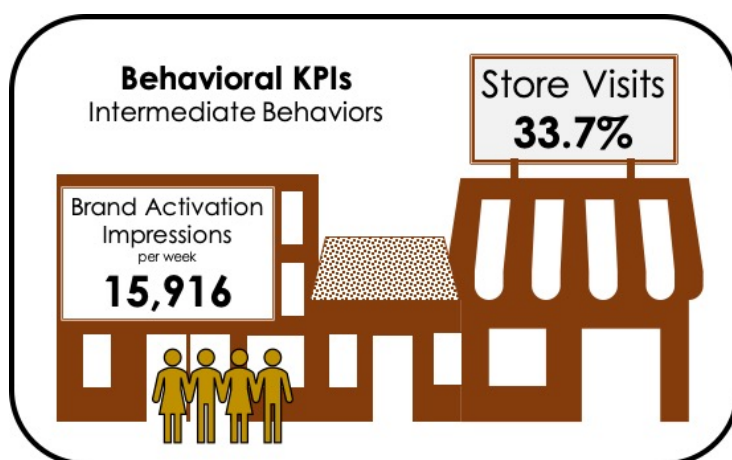
With 34 (26%) campaigns reporting **sales** as a KPI, this measure provides the most robust results. The average increase in sales attributed to OOH is 23.8%. Retail apparel and CPG (food and beverage) collectively comprised 35% of the industries reporting sales figures. A majority of the observations were from the Top 25 markets (64%) followed by 30% for 26+ markets and 6% for a mix of the Top 25 and 26+ market groups. The average campaign was 13 weeks in length spanning 2.8 markets with three OOH media formats. Twenty-one percent included a mobile component and four utilized street teams.



The average increase in **enrollments** attributed to OOH is 71.9% with 60% of the observations coming from the education industry. Campaigns averaged 11 weeks in duration, three OOH media formats, and three markets, which were evenly divided between Top 25 and 26+ market groups.

Intermediate Behavioral KPIs

The average increase in **store visits** is 33.7% with 100% of the observations originating from the Top 25 market group and 88% having a mobile component. Included industries skew slightly toward retail apparel and electronics. Campaigns averaged 3.3 markets, 17 weeks in duration, and four OOH media formats.



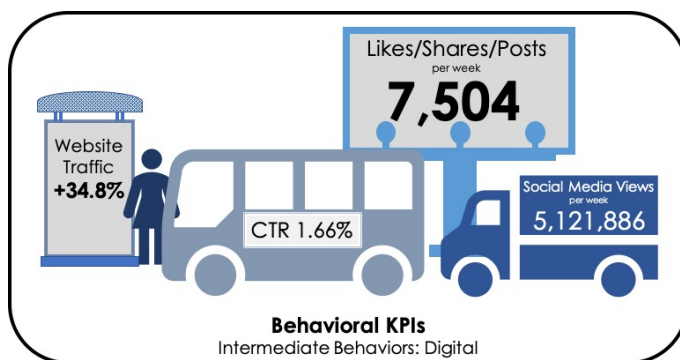
OOH campaigns with a brand activation component reported an average of 15,916 **impressions** per week. Observations were not skewed toward any particular industry, but 78% were in the Top 25 market group. Campaigns averaged 2.8 markets, seven weeks in duration, and three OOH media formats. Only one campaign included a street team.

The final group of lower order behavioral KPIs are focused on digital outcome measures where OOH media encouraged online or mobile engagement. The average **click-through-rate (CTR)** is 1.66% across six observations, which compares with an industry average of 0.60% for mobile display advertisements.⁷ Campaigns reporting CTR were not weighted toward any particular industry and were equally split between the Top 25 and 26+ market groups. Campaigns averaged 1.3 markets, eight weeks in duration, and two OOH media formats. All campaigns had a mobile component.

Across six observations, the average number of social media engagement, **likes/shares/posts**, attributed to OOH media is 7,504 per week. Campaigns were not weighted toward any particular industry, but all were in the Top 25 market group. Campaigns averaged 1.5 markets, five weeks in duration, and three OOH media formats.

The average number of **social media views** from six OOH campaigns is 5.1 million per week, of which 50% were from CPG (food and beverage) companies and 83% from the Top 25 market group. Campaigns averaged 1.6 markets, six weeks in duration, and three OOH media formats. Only one campaign included a mobile component.

Finally, the average increase in **website traffic** for the six campaigns reporting this metric is 34.8%. Campaigns were not weighted toward any particular industry and were equally split between Top 25 and 26+ market groups. Campaigns averaged 1.7 markets, eight weeks in duration, and three OOH media formats.



Best Practices

During the campaign planning process, establishing the objective for most campaigns is fairly straight forward. It typically originates from a current problem or a new opportunity to grow a brand. However, determining the best method to measure and articulate the objective can be more challenging than identifying a problem or opportunity. Based on the analysis of the 141 cases included in this study, several best practices were identified that can help managers improve campaign planning and evaluation:

1. Match campaign objectives with an appropriate KPI;
2. Keep the geographic unit of analysis consistent between the markets where OOH media is placed and where success is measured; and
3. Use concrete language in the objective so it is clear how success is to be measured.

Match Campaign Objectives with Appropriate KPIs

A difficult task with any campaign is determining the appropriate method to measure success. While it is often easily communicated that a campaign's objective is to increase awareness, change attitudes, or increase social media engagement, it is frequently less clear how to exactly measure these objectives. Table 8 is offered as a partial list of preferred KPIs categorized by and linked to the most common communication objectives. KPIs are additionally organized by direct and indirect measures. Direct KPIs are the preferred method to measure the success of campaign objectives. Indirect KPIs are acceptable alternative methods to measure some campaign objectives when other direct methods are too difficult or expensive to collect. However, direct KPIs should be preferred whenever possible.

Here's an example of a case study from this research report where campaign objectives were measured with appropriate KPIs. A national hotel chain in one market used bulletins and transit advertising to increase brand awareness (cognitive) and its premium category perception (affective). The hotel utilized a survey to assess the percent of respondents recalling the ad (cognitive) and percent of respondents who viewed the hotel as a "relaxing place to stay", a "renewing place", and a "place where guests can reach their full potential" (all affective measures).

Table 8 - KPIs by Objective

	Cognitive ¹	Affective ²	Intermediate Behaviors ³	Terminal Behaviors ⁴
DIRECT⁵	<u>Awareness</u> - Recall (ad, product, or brand) - Recognition (ad, product, or brand) <u>Knowledge</u> - Recall (product/brand features or attributes) - Recognition (product/brand features or attributes)	<u>Attitude Change</u> - Affinity (product, brand) - Preference - Attitudes - Beliefs - Perceptions - Relevance <u>Intention</u> - Purchase consideration - Purchase intent - Visit intent - Seek information - Recommend	- Store visits - Product trial - Website, online -Visits -Page views -Dwell time -CTR -Search queries - Social media engagement -Followers -Likes/shares/posts - App download - Submissions - Customer inquiry -Calls, emails - Word of mouth (WOM) -Person-to-person -Electronic -Press mentions - Product reviews - Brand activation -Attendance: impressions, dwell time -Customer data: email addresses, etc. -Customer acquisition: sales, sign-ups, etc.	- Sales -Orders, revenue, units, customers, accounts -Enrollments, applications -Market share -ROI - Audience -Ratings, share, tune-in -Attendance, visitors
INDIRECT⁶	<u>Awareness</u> - Impressions - Digital triggers/plays - Press mentions <u>Knowledge</u> - Use of product feature - Ad recall		- Brand activation -Buzz: earned media, word-of-mouth -Engagement: likes/shares/posts, with the activation, with street teams, etc.	

1. Cognitive objectives are associated with consumer memory or knowledge about a product or brand.

2. Affective objectives are associated with changing consumer attitudes and beliefs about a product or brand.

3. Intermediate communication behavioral objectives are possible incremental steps consumers take along the consumer decision journey before a product or brand choice is made.

4. Terminal communication behavioral objectives are the end result in the consumer decision journey typically associated with product purchase, event attendance, or broadcast ratings.

5. Direct KPIs are the preferred method to measure some campaign objectives.

6. Indirect KPIs are acceptable alternatives methods to measure some campaign objectives when other direct methods are too difficult or expensive to collect.

Keep Geographic Unit of Analysis Consistent

Given that OOH media is purchased on a market-by-market basis, it's important to report KPIs for OOH campaigns at the same market level for where OOH media is placed. Failure to do so can misattribute the success of OOH media during campaign evaluation.

For example, consider an OOH media campaign designed to promote a new national television show on a major network. OOH media is purchased in Los Angeles and New York City. To measure campaign success, TV program ratings for Los Angeles and New York City should be used rather than national ratings. An OOH media campaign placed in a few markets, like Los Angeles and New York City, cannot claim success for national viewership.

Use Concrete Language

Considering that a company or agency manager charged with measuring campaign success is not always the one who wrote the objective, it's important to use concrete language when articulating the objective. Using ambiguous language may lead to the wrong KPI being used to measure campaign success.

There are a few marketing terms and phrases that are susceptible to ambiguous meanings when included in campaign objectives. The phrase *"connect with the audience"* is one these. It can be unclear to the reader whether this means the campaign goal is to emotionally connect with consumers, which is an affective objective, or to physically connect with consumers, which is a behavioral objective. Physically connecting with consumers is likely accomplished through a brand activation and success can be measured using people counts like impressions. Emotionally connecting with consumers can be accomplished with either a brand activation or through any number of traditional OOH media formats. Regardless of the execution used to induce an emotional connection, emotive measurement necessitates asking consumers in a survey about their level of emotional involvement along a Likert or semantic differential scale.

Another ambiguous phrase often included in objectives is to *"create excitement"*. It can be unclear to the reader whether the campaign goal is to generate buzz, which is either a behavioral response (word-of-mouth) or a measure of awareness (press mentions). Alternatively, excitement could be viewed as an attitudinal measure for how consumers view the brand along some emotional dimension, which is an affective response.

Conclusion

Through an analysis of 141 case studies from OAAA's best-in-class OOH media library, nine key benchmarks were produced. Unfortunately, not all of the three campaign objective categories were well represented. Only one cognitive measure had a large enough sample size to produce meaningful results, and no affective benchmarks could be reported. However, eight behavioral KPIs were available for analysis. The overabundance of behavioral KPIs may be related to them being more directly observable and it not typically requiring a survey to capture results.

Of the eight reported behavioral benchmarks, half were related to online KPIs perhaps owing to OOH media's ability and OOH marketers' willingness to embrace mobile and digital technologies. Indeed, 43% of campaigns included digital billboards, 13% included a mobile advertising component tied to OOH media placement, and 17% incorporated consumer interaction with OOH media using their mobile phone or social media. Consumer interactivity with OOH media included QR codes, Snapchat filters, live tweets to billboards, and content sent from OOH media to the consumer's phone or email. All campaigns having consumer interactivity were from the more national Out of Home Media Plan Award winner group than the local case study library group, and none were earlier than 2011. If cases earlier than 2011 and the local case study group are removed the sample, then 36% of all OOH media campaigns included consumer interactivity using their mobile phone or social media.

Another possible reason for the dominance of online KPIs, such as CTR, website visits, and social media engagement, are that these metrics are easily tracked over time and when tied to particular markets, these KPIs are easily linked to OOH media on a market-by-market basis.

A few other behavioral KPIs were frequently found in the best-in-class case study sample. Sales, and to a lesser extent enrollment, are terminal points in the consumer decision journey and are generally common KPIs for most businesses. Store visits is another important KPI for businesses with brick and mortar locations. Collectively, these KPIs are relatively easy for businesses to track and obtain, which ensured the sample sizes for these KPIs were large enough to produce meaningful benchmarks.

Product recall was the only cognitive objective to have a sufficient sample size to produce a benchmark, suggesting that it appears to be an important KPI for businesses. This assertion is based on the observation that a number of

campaigns reported product recall despite it requiring costly and time-consuming survey collection. Further accentuating the importance of product recall is that no product knowledge or attitudinal KPIs were reported in the analyzed case studies even though these items were frequent campaign objectives and their data collection utilizes the same survey method required for product recall.

Outside of the benchmarks produced by this report, several best practices for campaign planning and evaluation were identified. First, KPIs should be correctly linked with campaign objectives to ensure campaign success is appropriately measured. Table 8 provides a general list of KPIs organized by objective. Second, KPIs for OOH should be tied to only the markets where OOH media has been purchased. In other words, national success cannot be directly linked with the few markets where OOH media has been placed. Finally, concrete language should be used when writing objectives. Ambiguous language can lead to the wrong KPI being used to measure success.

In the end, this report provides strong evidence that OOH media is effective in generating consumer awareness and influencing behavior. While it is understood by most advertisers and media planners that OOH media is effective in changing attitudes, more case studies reporting this KPI are needed to demonstrate its utility in OOH media campaigns.

Notes

¹ Out of Home Advertising Association of America (2019). *OOH Market Share*. Retrieved March 15, 2019 from <https://oaaa.org/AboutOOH/Factsamp;Figures/OOHMarketShare.aspx>.

² Williams, D. (2017). *Ads driving online activity*. The Nielsen Company.

³ Roux, A.T. (2016). "Practitioners' view of the role of OOH advertising in media in IMC campaigns," *Management*, 21(2), 181-205.

⁴ Anand, B. and Saha, M. (2014). "Activation versus traditional OOH," *Outdoor Asia*, 5(7), 40-41.

⁵ Chi-square tests between the Media Plan of the Year group and the Local Case Study group showed that the two groups did not differ in terms of the type of OOH media included in the campaign, the type of objective for the campaign, and the overall quality of the case study (i.e., the degree to which the campaign's stated objective was measured by an appropriate KPI). Therefore, it is appropriate to combine the two case study groups into one group for analysis.

⁶ The interquartile range method is a commonly used rule in statistics to determine if a data point is an outlier. A data point is considered an outlier if it is more than 1.5 times above the third quartile or 1.5 times below the first quartile. Assume the following series of numbers: 5, 7, 10, 15, 19, 21, 21, 22, 22, 23, 23, 23, 23, 23, 24, 24, 24, 24, 25. To calculate, a series of numbers are ordered from least to greatest where the middle point is called the median, or 23 in the above example. The first quartile is the middle point between the first number and the median, or 19. The third quartile is the middle point between the median and the last number, or 24. The

interquartile range is calculated by subtracting the first quartile median from the third quartile median, or 5 in this example ($24 - 19 = 5$). If a data point is 1.5 times the interquartile range below the first quartile or 1.5 times the interquartile range above the third quartile, it is considered an outlier. So, any data point below 11.5 is an outlier ($19 - 1.5 \times 5 = 11.5$) or any data point above 31.5 is an outlier ($24 + 1.5 \times 5 = 31.5$). In this example, data points 5, 7, and 10 are outliers.

⁷ Donnelly, G. (2019, January 17). "Google ads mobile benchmarks for your industry," WordStream. Retrieved March 21, 2019 from <https://www.wordstream.com/blog/ws/2018/08/13/google-ads-mobile-benchmarks>.