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HOW DOES NON-PAID MEDIA IMPACT THE EFFECTIVENESS OF PAID ADS?

AN EXPLORATION WITH AT&T AND HOTELS.COM

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ABSTRACT

A wealth of studies has demonstrated how PR and advertising impact one another. This study compares Net Positive PR Impressions against advertising creative scores for Hotels.com and AT&T over nine-months. Results show the potential for PR to increase the value of media buys by impacting creative effectiveness.

INTRODUCTION AND BACKGROUND

Much has been written about the influence of advertising (paid media) on business outcomes[1] , and about the influence of PR (earned media) on business outcomes[2]. One fascinating study even compared the two disciplines side by side in a formal experiment to determine whether earned media had a credibility multiplier over paid media[3]. In addition, much has been written about the integrated impact both advertising and PR have on business outcomes.

Until now, however, it appears nothing has been written on how PR impacts advertising creative effectiveness. Since advertising creative is the main driver behind the success of multi-million media buys, PR has a bigger role to play than we ever knew. With the merging of traditional paid/non-paid media channels today, it is crucial to understand the inter-relationships between these media disciplines and how one can influence the other.

[1] *Market Mix Model results from major Health & Beauty Product illustrating correlations between ABX Index creative scores versus media spend on sales revenues. Courtesy of Bottom-Line Analytics.*

[2] *"Exploring the Link Between Share of Media Coverage and Business Outcomes," IPR Measurement Commission, 2007, Angela Jeffrey, APR; David Michaelson, Ph.D. and Don Stacks, Ph.D.*

[3] *"Exploring the Comparative Communications Effectiveness of Advertising and Public Relations: An Experimental Study of Initial Branding Advantage," IPR Measurement Commission, 2007, David Michaelson, Ph.D. and Don Stacks, Ph.D.*

A RICH HISTORY

In an extensive Literature Review of existing experimental studies on how both PR and advertising have been measured across the decades, we found the most relevant information in studies about how the two disciplines interacted. While case studies are certainly available isolating PR and outcomes, the advertising world has conducted many more cases showing PR's incredible power within integrated marketing communication theory. This work is exciting and relevant and will be summarized below. (It is worth mentioning here that none of the work described in this paper have any relationship to Advertising Value Equivalents (AVE's)[4].)

Our learnings from this Literature Review can be summarized in four main sections:

Measuring PR Impact – This three-paper series is a good example of measuring PR against outcomes. The first paper compares editorial volume, tonality and messages against various outcomes (Michaelson, Stacks, Jeffrey, 2006); the second shows how correlations improve when Share of Discussion is used (Michaelson, Stacks, Jeffrey, 2007); and the last looks at metrics that made the correlations clearest (Jeffrey, Jeffries-Fox, Rawlins, 2010).

Measuring Advertising Impact – An early study (Starch, 1923) shows it is possible to measure advertising with a high degree of accuracy through copy testing, which Wikipedia says, "determines ad effectiveness through consumer responses, feedback, and behavior." Starch found the average correlation between advertising copy test results and business results was r=.80. Much later, the Advertising Research Foundation Copy Research Validity Project (Haley, Baldinger,1991) confirmed that copy testing indeed worked as related to sales, but multiple measures must be used. Additional analytics tools such as market mix modeling enable advertisers to make further sense of how their work contributes to business results.

Measuring Greatest Impact – PR or Advertising – Over many decades, PR practitioners thought news had more impact than advertising – even to the extent of using multipliers. Quite a few studies have shown this is not the case including:

- The superiority of news over advertising cannot be attributed to an implied recommendation found in media content. (Hallahan, 1999)
- Publicity and advertising exerted similar impact on believability. (Jo, 2004)
- The editorial and advertisement were equally effective in promoting the product. (Michaelson & Stacks 2007)
- The content type (news editorials vs. advertising) did not impact attitudes and was in line with previous research. (Verčič, Verčič & Laco, 2008)
- Two newer studies disagree with these findings, however:
  - The credibility of publicity is much higher than advertising. (Kim, Yoon & Lee, 2010)
  - Earned media is more impactful than either paid or owned – per exposure. But paid has far more exposures, so paid media's influence dominates. (Lovett & Staelin, 2016)

Public Relations and Advertising: Measuring through Integration – By far, the greatest number of accessible studies looks at how PR and advertising work together toward a given end. The Integrated Marketing Communications (IMC) movement started in the 1980's is here to stay.

IMC is defined in Wikipedia as, *"a holistic planning process that focuses on integrating messages across communications disciplines, creative executions, media, timing and stakeholders. An integrated approach has emerged as the dominant approach used by companies to plan and execute their marketing communication programs and has been described as a paradigm shift."*

The support for the effectiveness of both PR and advertising is stunning in the papers cited below. While the studies all use different methodologies and test different theoretical models, all are rigorous and fully documented. The power of the data in favor of PR makes a reader question why the industry continues to question its relevance. Perhaps a greater need is to harness PR success through integrated partnering rather than as a competitive discipline.

- The news environment modulates the impact of advertising. (Jeffries-Fox, 1999)

- The effect of corporate credibility and endorser credibility influence ad effectiveness. (Goldsmith, Lafferty & Newell, 2000)

- Corporate-image advertising cannot inoculate against negative news. (Pashupati, Arpan & Nikolaev, 2002); don't advertise during negative news. (also, Jeffries-Fox, 1999)

- Ad effectiveness can be substantially improved by publicity around campaigns by increasing subsequent ad memory. (Jin, 2003)

- Citizens are more likely to rely on press spin than direct advertising in high-intensity political races. (Jasperson & Fan, 2004)

- While ads and news acted together, news was more important than ads in the Mexican Presidential Election of 2000. (Beltran, 2007)

- Negative news is magnified by advertising and decreases ROI on ad expenditures. Positive news bolsters ad results and expenditures. (Meijer & Kleinnijenhuis, 2007)

- Combining advertising with objective news about a new online brand generates higher intentions to purchase than does advertising alone. (Micu & Thorson, 2008)

- Advertising coupled with positive publicity induces confirmation effects whereas negative publicity combined with ads mostly produces contrast effects. Attitude-toward-the-brand was higher than ad-only or publicity-only. (Kim, Yoon & Lee, 2010)

- In times of positive publicity, firms may be able to generate greater positive effects from their advertising. Synergistic effects between publicity and advertising were found. (Stammerjohan, Wood, Chang & Thorson, 2013).

- Examining the relationship between existing corporate reputation, publicity, advertising activity and sales levels for major corporations, this study found that news coverage is indeed related to sales. (Spotts, Weinberger & Weinberger, 2014)

The above review provides the following background for our proposed study. First, the impact of PR on results has been shown in a variety of case studies within three related papers. Second, the impact of advertising is well-established with documentation as far back as the 1920s. Both PR and advertising can be linked to sales or other outcomes as determined.

Third, neither PR nor Advertising are more credible than the other across the board. However, the newest study (Lovett & Staelin, 2016) may say it best – that earned media is more impactful than either paid or owned - per-exposure; and paid has many more exposures, making it dominant.

Fourth, the Integrated Marketing Communications craze that started in the 80's has only intensified as a way for both PR and advertising managers to expand success, or failure, in each discipline by coming together. The list of integrated studies above show that positive news absolutely affects advertising success, and negative news can devastate it.

CHALLENGES AND OPPORTUNITIES FOR BUILDING ON THIS WORK

Our interest in measuring the integration and impact of earned media on paid media, and vice versa, started many years ago. The authors of this paper helped build an integrated measurement platform from 2008 to 2011 for a media monitoring and analysis organization. Early insights from these efforts showed similar findings to many of the studies above on how earned media increased or decreased the effectiveness of advertising depending upon its favorability and situation.

Most of the papers listed above were formal scientific studies testing precise theories and didn't appear to be funded. Therefore, a few limitations in testing methods may have obscured some of the results:

- Many of the relatively small survey audiences were mainly comprised of university students.

- Advertising and editorial creative materials were mainly mocked-up.

- Creative mock-ups could not be presented in real-world testing environments

- Larger studies measured advertising through only quantitative measures such as marketing budgets or audience measurements, missing the creative component altogether.

Today's technologies for measuring both PR and advertising solve many of these problems and will be discussed shortly. Most important, researchers must accurately access advertising creative, since research shows it accounts for about 60% of advertising effectiveness as opposed to media spend or audiences reached[5]. In 1923, Daniel Starch validated the idea of advertising copy testing and sales (Starch, 1923). More recently, Keith Weed, CMO of Unilever, discusses his devotion to the discipline of measuring creative:

> " *I've certainly got enough evidence, real hard evidence, showing the ads we've pretested perform better in the marketplace than ads we don't. It's inarguable proof.* "
>
> *(Advertising Age, September 10, 2012)*

> " *The biggest variable is the quality of the creative. Creative quality beats the media mix.* "
>
> *(Campaign Live, June 19, 2017)*

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[5] *A case study showing correlations between media spend and sales revenues, contrasted with creative scores and sales revenues, for a Health & Beauty Brand illustrates this point exactly. The study, by Michael Wolfe, CEO of Bottom-Line Analytics, is in Appendix B.*

Theoretical Framework for this Study

The theoretical framework for this study is closest to Integrated Marketing Communication (IMC). IMC was defined in 1989 by the American Association of Advertising Agencies (AAAA) as: "A concept of marketing communications planning that recognizes the added value of a comprehensive plan that evaluates the strategic roles of a variety of communication disciplines (e.g. general advertising, direct response, sales promotion and public relations) and combines these disciplines to provide clarity, consistency and maximum communication impact."

However, the literature for IMC did not originate from an intellectual or theoretical base. Rather, it has emerged from an applied or tactical level. (Schultz, Kerr, Ilchul & Charles, 2007).

This study is also a tactical effort to explore how favorable messaging in public relations might affect attitudes toward another IMC discipline, that of advertising creative. The method to be used is original, possible only through 2018 research technologies and sophistication. We hope the results contribute to the PR and IMC literature, and that they form the basis for more rigorous studies.

Benefits of the Study

This paper will provide new knowledge on findings in the fourth track above - Public Relations and Advertising: Measuring through Integration. Specifically, it will build on the work started by Bruce Jeffries-Fox (2002) that summarizes four detailed projects he had managed in the late 1990s as head of PR research for AT&T. The findings (paraphrased below) showed that the news environment impacted AT&T advertising as follows:

- In times of 'normal' news coverage, news and advertising work together, and incremental advertising has a positive impact on attitudes.
- In times of 'extremely positive' news coverage, incremental advertising may not have much positive impact.
- In times of 'extremely negative' news, incremental advertising may have a negative effect.
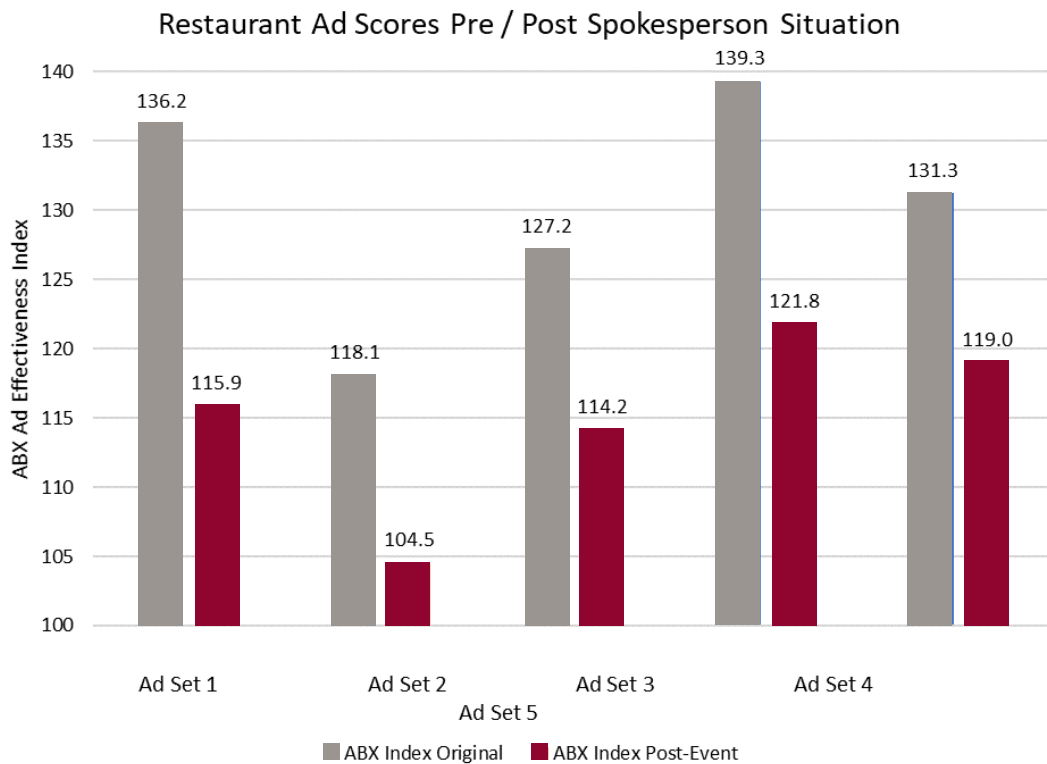
These findings suggest that if news coverage can substantially impact the huge investment a company makes in various forms of paid advertising, PR should be recognized as a more powerful contributor to the bottom line than it is today.

Pre-Research Catalyst: Anecdotal Case Study

As stated earlier, prior work on the impact of PR on advertising has been hampered somewhat by old technology and small budgets that required mocking-up testing materials. This study has technology advantages that enable more broad views of this interaction using real ad creative in more realistic test settings. The copy testing provider (ABX Advertising Benchmark Index) runs the largest global syndicated advertising effectiveness study in the world.

Before proposing a formal study, we used several anecdotal case studies as an initial basis to test that earned media has a significant impact on the effectiveness of advertising creative. All anecdotal studies showed changes in ad creative after the occurrence of earned media, one of which is shown below:

- <u>Anecdotal Restaurant Case shows power of Negative News</u> – A restaurant advertiser with high scores on creative across all media types had a problem with an advertising spokesperson who behaved poorly. As the news about this spokesperson broke and piled up, the restaurant's ad effectiveness scores decreased. The restaurant's Ad Effectiveness Index scores before the situation were well above the average of 100 (see gray bars below), which means the ads were likely to effect business outcomes. The Index scores following the situation dropped precipitously (see red bars below).

Restaurant Ad Scores Pre / Post Spokesperson Situation

Bar chart titled "Restaurant Ad Scores Pre / Post Spokesperson Situation" with y-axis labeled "ABX Ad Effectiveness Index" ranging from 100 to 140. Data for Ad Set 1 through Ad Set 5:

Ad Set	ABX Index Original	ABX Index Post-Event
Ad Set 1	136.2	115.9
Ad Set 2	118.1	104.5
Ad Set 3	127.2	114.2
Ad Set 4	139.3	121.8
Ad Set 5	131.3	119.0

While this anecdotal case study and other informal observations convinced us that the effect between PR and advertising was real, we wanted to know the following answers and more:

○ To what extent is there a threshold that earned media must attain to see a noticeable paid media impact?

○ To what extent is the effect consistent across industries; or, are some businesses more, or less, sensitive?

○ To what extent is the effect consistent across media types?

RESEARCH OBJECTIVES

We proposed this research as a next step in the process. Three objectives were set:

○ Ascertain if earned media changed advertising creative scores for two major corporations over a test period.

○ Watch for major positive or negative events in the earned media coverage that might further show the relationship between earned and paid media.

○ Work toward the eventual development of a predictive model.

METHODOLOGY

Two major corporations, AT&T and Hotels.com, agreed to participate in this study due to our mutual involvement with Southern Methodist University's Corporate Communications & Public Affairs Advisory Board in Dallas. Each corporation would submit pre-measured PR data, and we would provide advertising creative testing (copy testing). The testing period was set loosely, from three to nine months, in hopes of seeing major media events for each company.

PR measurement would include:

- Traditional media clips analyzed in-house by the corporation, or by its measurement supplier, for the three- to nine-month period. They would include all media types and exclude coverage generated by press releases:

  - Hotels.com would send a spreadsheet at the end of the nine-month period that included Key Media data with 109 article scores, measured by Metrica. The Hotels.com case study would look at the issue from a very targeted, micro point of view.

  - AT&T provided access to its Cision platform of measured clips, which averaged from 2,000 to 5,000 each month. For the nine-month period, more than 31,000 clips were included. The AT&T case would thus look at the issue from a macro point of view.

- Clips were analyzed by Favorability and Audience Impressions. Additional information (Message, Products, Regions, Headlines, etc.) were also provided in case deeper analysis was needed. The two corporations would also notify us if any major news event, positive or negative, were on the horizon.

- In the end, we elected to use "Net Positive Impressions" only, since no major media events or crises had occurred during the timeframe. We analyzed the data by the month, both in Net Positive Impressions and Net Positive Story Counts, (Positive + Neutral-Negative).

**Advertising Testing would be provided by ABX:**

To meet the needs for testing advertising creative in a real-world setting, we used the pro-bono services of Advertising Benchmark Index (ABX), which runs an online syndicated creative testing service in 18 industries with 140,000 ads benchmarked in TV, radio, newspaper, magazine, digital and more. ABX utilizes the following process:

- **Ad Selection** - ABX would select high-occurrence ads in-market for Hotels.com and AT&T at the start of the analysis period and repeated the evaluation of each ad at two-week intervals. ABX also chose additional ads using an automated random selection algorithm and grouped them for testing. So, each respondent saw a set of nine or ten ads along with the Hotels.com and AT&T ads. One TV spot was selected for Hotels.com. Two TV spots and one Online Display ad were selected for AT&T.

- **Consumer Respondent Sampling** - A representative and balanced sample of consumers would be randomly selected from among those qualified. A general population stratified random probability sampling design would use a blended sample. Participants double opt-in and are balanced by age within gender, and by geography. Additional demographic, segmentation, product use, social media and media consumption are collected. For this, a General Population audience of 18+ was used.

- **Interviewing Methodology** – An "ocular" survey system would be used that provides improved accuracy, higher interview satisfaction and better compliance, and generates 40% more data than traditional "text based" surveys. This single-solution, highly repeatable methodology would ensure that every respondent is presented with the same interviewing experience.

- **The ABX Index** – ABX measures creative in 14 KPIs that are grouped as follows for each ad, and are augmented with various demographic, category and media consumption breaks. The ABX Index is comprised of five of the 14 KPIs that have been found to correlate to business outcomes and enhance predictive analytics in market mix modeling. (Additional information on the ABX Index is in Appendex A.
  - Create Awareness (Brand Linkage)
  - Communicate a Message
  - View Favorably (Likable)
  - Influence Brand Reputation
  - Generate a Call to Action
  - While "Likability" measures are provided, ABX research shows that it does not improve predictive analytics, so it is not included in the ABX Index.

- **Data Delivery** – Since ABX taps into the largest online consumer panels, obtaining survey results is very fast. The data is analyzed and delivered in 24 hours. Fast delivery of results enables advertisers with poor-scoring ads to quickly pull them off the air until they can be remediated. Quick response is also critical for advertisers who experience PR crises and need to cut losses quickly.

Bringing it All Together

Ultimately, "Net Positive Impressions" for the PR coverage were collected for eventual comparison to the ABX Index scores in monthly increments. The simple diagram that follows illustrates the process.
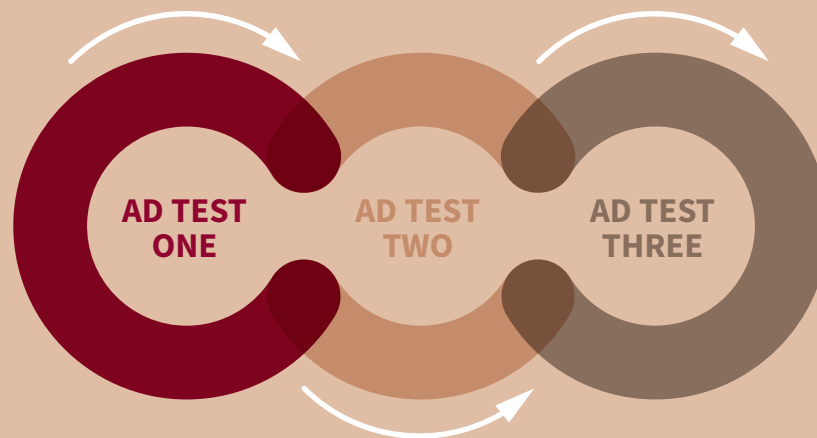
We hoped to see changes in the ABX Index for Hotels.com or AT&T of at least six points to reach ABX's +/- 95% Confidence Level. A six-point differential plus a high correlation between the earned and paid media datasets would indicate a relationship between the two. Results below will show that the Hotels.com study did show these results, but the AT&T study fell short.

RESULTS

The study was conducted over a nine-month period, with analysis following the end of PR data collection and advertising re-testing. We tested 26 ad repetitions with hundreds of survey respondents each. Those ads included:

- **Hotels.com – Image-Consumer** – 15-second TV Spot – 4 repetitions
- **AT&T - Wireless Image-Consumer** – 30-second TV – 8 repetitions
- **AT&T - Samsung Galaxy 6 –** 15-second TV – 7 repetitions
- **AT&T Next – Online Display** – 300 x 250 – 6 repetitions

Summary of Results

Interestingly, the data showed very high correlations (from r=.868 to r=.972) between Net Positive PR impressions and ABX Index scores for all four ads. However, the conclusions differed by company.

For Hotels.com, the ABX Index scores changed enough (6 points) to meet a 95% level of confidence[6].

For AT&T, the ABX scores did not change enough (4 points) to meet this level of confidence, though the PR impressions were highly synchronized with the index itself.   The research suggests the ABX Index is strongly linked with impressions, and future studies with shorter time periods, more targeted audiences and smaller clip volumes should yield more insights.

Hotels.com Results

Hotels.com introduced a new PR measurement technique this year. Rather than measuring every clip, the PR management team chose to score Key Media clips. As a result, only 109 high-impact clips were presented for correlation from January 2016 through September 2016. As outlined above, ABX took Positive + Neutral – Negative clip scores for each month and used Audience Impressions as the base.

One :15 TV ad was measured with scores varying over the months from an ABX Index of 85 to 91 – which is a large enough change to be statistically significant. The correlation was very high at a Pearson r=.87. High correlations and ad-score changes suggest PR may well have impacted ad effectiveness.

Net Positive Impressions vs ABX Ad index
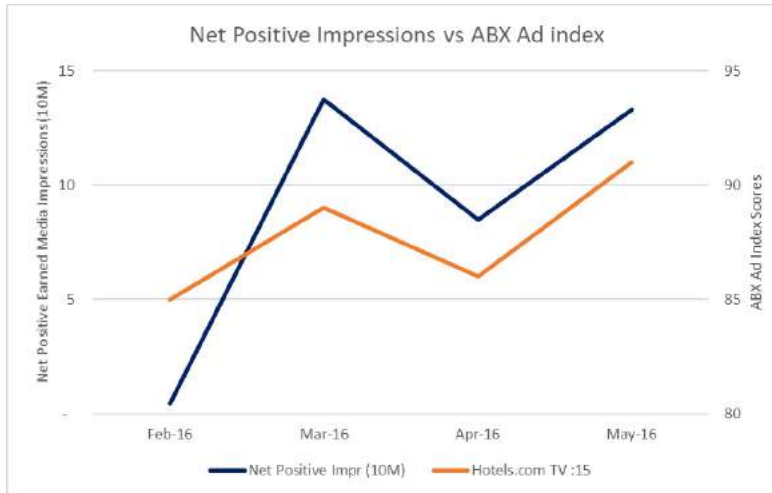
Hotels.com TV :15 - "Hi, I'm Captain Obvious"

Visual shows Captain Obvious, the mascot of Hotels.com, promoting the campaign of 2016 Presidential Race by running all over America. Captain Obvious: When I heard there is a race for President, I decided to run, and I'll be running all over America. So, follow me (here) …. Male v/o: Supported by Hotels.com. Logo, Tag Line.

(Click image to play spot)

Hotels.com	J-16	F-16	M-16	A-16	M-16
Net Positive PR Impressions (10M) +	64,002,948	4,584,680	137,526,512	84,997,398	132,876,080
ABX Index* for :15 ad		85	89	86	91

+ Net Positive PR Impressions (Positive + Neutral – Negative)

* ABX Index – an ad effectiveness score based on a set of KPIs that correlate with outcomes. An average score = 100. The higher the score, the more likely the ad will have an impact. Scores range from 0 to above 200 depending on excellence of creative.

Hotels.com	No Lag	1 Month Lead	2 Month Lead
Correlations between :15 TV ad and PR impressions	r=.868	r=-.297	r=.985

r= In statistics, the Pearson correlation coefficient is a measure of the linear correlation between two variables X and Y. In this case, the correlations are between PR impressions and advertising effectiveness scores for this TV spot.

Hotels.com (Hotels.com)

"Hi i'm captain obvious when i"

Visual shows Captain Obvious the mascot of Hotels.com promoting the campaign of 2016 Presidential Race by running all over America. Captain Obvious: When I heard heard there is a race for President I decided to run and I'll be running all over America. So follow me on URL or don't we live in democracy. Male v/o: Supported by Hotels.com. Logo, Tag Line.

🖵 **Television** (15s)

First Run:
2016-02-22

Top Category:
Travel & Tourism

Category:
Online Travel Agencies

Sub-Category:
Online Travel Related

ABX 84.6

Marker Key: C Avg. for Category   M Avg. for Medium

Category
90.9

Frequent	Regular
150.4	150.4
Occasional	Never
92.0	72.3

Medium
77.7

Frequent	Regular
78.5	75.9
Occasional	Never
73.1	42.5

Gender
Female **81.8**

Male **85.7**

Regions
West **83.6**
Midwest **81.3**
Northeast **77.1**
South **88.4**

KPI Breakouts

Category	KPI	Raw	ABX
Awareness	Awareness	85%	99.9
Message	Delivery	48%	76.3
	Clear	50%	75.9
	Understood	62%	84.2
Reputation	Reputation	11%	50.3
Relevance	Relevance	41%	79.5
Likeability	See Again	40%	89.0
	Like	32%	92.6
	Dislike	10%	105.9
Call to Action	Contact	4%	108.0
	Web	21%	135.5
	Look For	12%	65.6
	Purchase	3%	20.7
	Recommend	6%	54.4
	Talk	11%	84.0
	None	63%	113.9
	Any	37%	87.7

Marker Key: C Avg. for Category   M Avg. for Medium

© Advertising Benchmark Index 2017
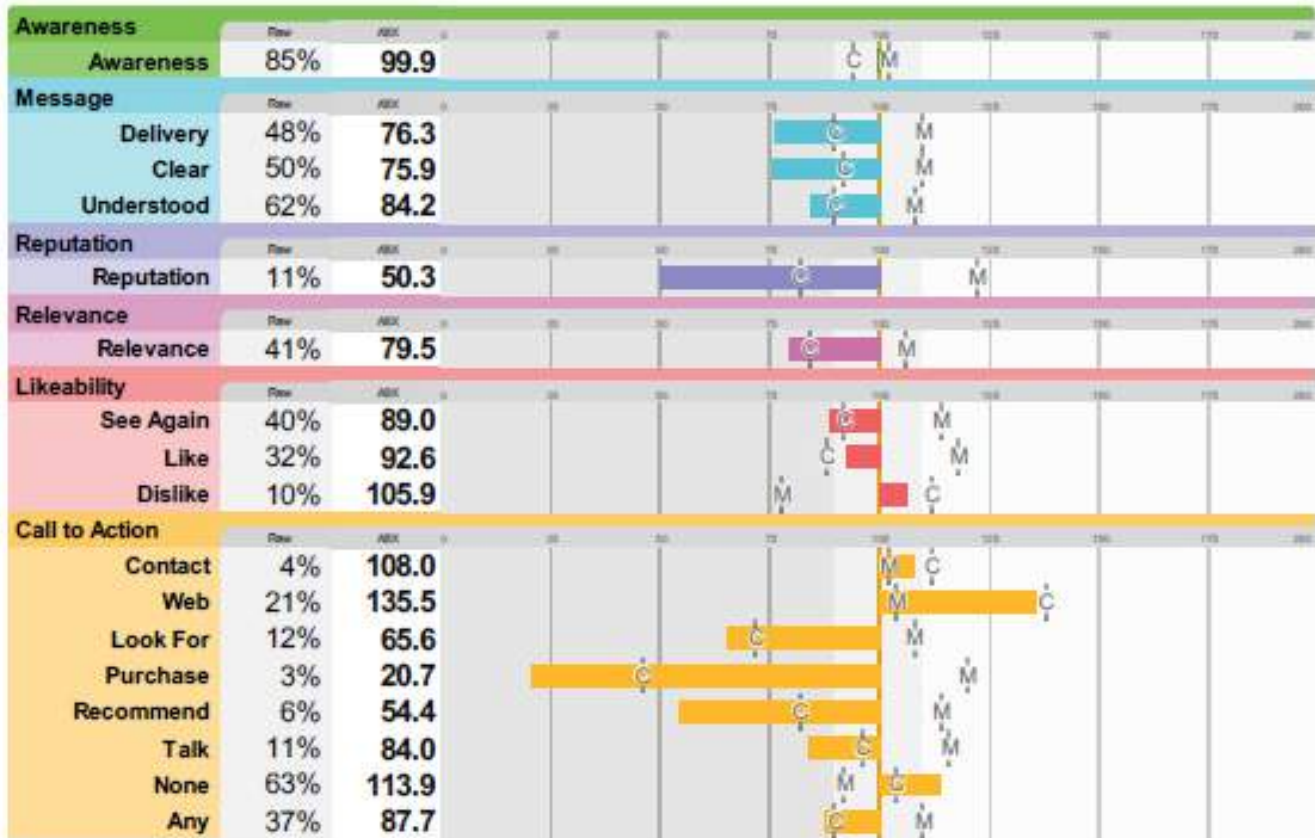
AT&T Results

AT&T furnished analytics for 31,976 clips from January through September 2016 for review. We combined Positive + Neutral clips and subtracted out Negative, for Audience Impressions/Unique Visitors and Article Counts . Scores were analyzed by monthly and bi-weekly activity. No significant differences appeared between the variations, so Monthly Impressions/Visitors were utilized. The decrease in PR scores between May and July was not the result of increased negative coverage, but was a drop in overall story volume.

The ABX Index scores for each ad showed strong correlations with Net Positive Impressions averaging a Pearson r=.945. However, the variation in the advertising scores was only 4 points over the nine months. Since the ABX Index 95% Confidence Interval is +/- 3 points, the 4-point spread wasn't high enough to be statistically significant to show PR had affected paid.

Still, a correlation of r=.945 between AT&T's Net Positive Impressions and ABX ad scores is too high to ignore. As you'll see in the following tables and charts, clearly there is some relationship between AT&T paid and non-paid media. Additional research is needed to understand it.

In the tables below, the ABX Index scores are based on a score of 100 as "average" in effectiveness.

### AT&T Monthly PR Impressions Vs. Ad Effectiveness Scores

AT&T	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16
Net Positive PR Impressions (10M) +	1388	1218	1375	969	476	428	596	861	455
ABX Index* for :15 TV ad		105	107	105	102	102	103	104	
ABX Index* for :30 TV ad	95	96	95	94	92	92	92	94	
ABX Index* for Online Display ad			97	97	93	93	94	95	

+ Net Positive PR Impressions (Positive + Neutral – Negative)

* ABX Index – an ad effectiveness score based on a set of KPIs that correlate with outcomes. An average score = 100. The higher the score, the more likely the ad will have an impact. Scores range from 0 to above 200 depending on excellence of creative.

AT&T	No Lag	1 Mo Lead	2 Mo Lead
Correlations Between :15 TV and PR Impressions	r=.972	r=.672	r=.284
As above for :30 TV	r=.933	r=.737	r=.217
As above for Online Display ad	r=.930	r=.649	r=-.858

r= In statistics, the Pearson correlation coefficient is a measure of the linear correlation between two variables X and Y. In this case, the correlations are between PR impressions and advertising effectiveness scores for this TV spot.

Net Positive Impressions vs ABX Ad Index
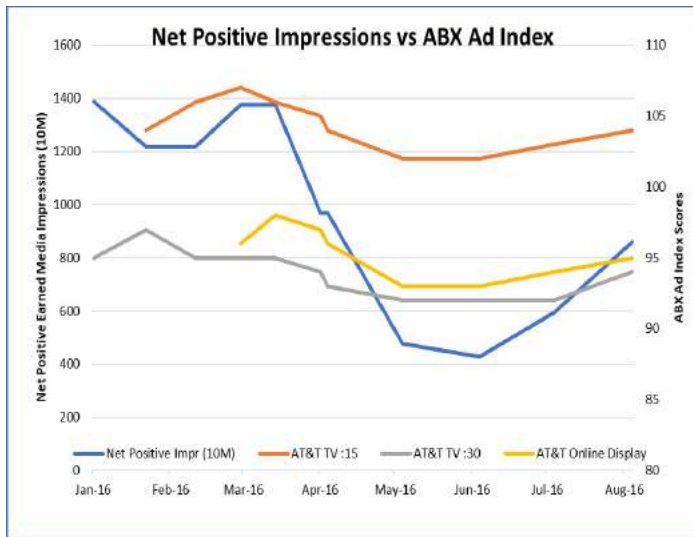
One could argue that PR did not have much effect on advertising scores given the very high volumes of unpaid media. However, in the chart below, one can see a similar trending between the ABX Index scores for all three AT&T ads against the Net Positive news coverage. However, with so many variables at play for a news volume of 31,000+ clips, this is not conclusive and warrants more exploration. Descriptive data for each ad is presented below.

AT&T TV :15 - "Out on the Town or in for the Night" – Samsung Galaxy 6

Text: People enjoying food at night on roadside. Product and offer is shown along with text. Male V.O: Out on the town or in for the night AT&T helps keep everyone connected. Right now, buy the Samsung Galaxy S6 and get one free. Buy1 at AT&T and get 1 free. Logo. URL.

(Click image to play spot)

AT&T Monthly PR Impressions Vs. Ad Effectiveness Scores

AT&T	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16
Net Positive PR Impressions (10M) +	1388	1218	1375	969	476	428	596	861	455
ABX Index* for :15 TV ad		105	107	105	102	102	103	104	

+ Net Positive PR Impressions (Positive + Neutral – Negative)
* ABX Index – an ad effectiveness score based on a set of KPIs that correlate with outcomes. An average score = 100.
The higher the score, the more likely the ad will have an impact. Scores range from 0 to above 200 depending on excellence of creative.

Correlations Between Impressions and Ad Scores Over 9 Months

AT&T	No Lag	1 Mo Lead	2 Mo Lead
Correlations Between :15 TV ad and PR Impressions	r=.972	r=.672	r=.284

r= In statistics, the Pearson correlation coefficient is a measure of the linear correlation between two variables X and Y. In this case, the correlations are between PR impressions and advertising effectiveness scores for this TV spot.

AT&T (Samsung Galaxy S6)

"Out on the town or in for the"

People enjoying food at night on roadside. Product and offer is shown along with text. Male V.O: Out on the town or in for the night AT&T helps keep everyone connected. connected. Right now buy the Samsung Galaxy S6 and get one free. Buy1 at AT&T and get 1 free. Logo. URL.

☐ **Television** (15s)

First Run:
2016-02-02

Top Category:
Telecom, Cable and Internet

Category:
Wireless Communications

Sub-Category:
Smartphone

ABX 103.5

Marker Key: C Avg. for Category   M Avg. for Medium

Category	Medium	Gender	Regions
107.2	**95.2**	Female **96.2**	West **100.3**
Frequent **116.4** / Regular **97.4**	Frequent **98.6** / Regular **100.0**		Midwest **107.1**
Occasional **110.6** / Never **48.2**	Occasional **84.9** / Never **42.5**	Male **108.8**	Northeast **86.0**
			South **108.5**

KPI Breakouts

KPI		Raw	ABX
Awareness	Awareness	93%	108.5
Message	Delivery	68%	109.2
	Clear	75%	112.8
	Understood	77%	105.1
Reputation	Reputation	21%	97.6
Relevance	Relevance	45%	87.2
Likeability	See Again	36%	78.8
	Like	32%	92.7
	Dislike	9%	98.9
Call to Action	Contact	6%	163.3
	Web	15%	97.3
	Look For	13%	69.1
	Purchase	9%	53.7
	Recommend	7%	60.4
	Talk	13%	99.6
	None	60%	109.1
	Any	40%	93.9

Marker Key: C Avg. for Category   M Avg. for Medium

AT&T TV :30 - "It Started with a Single Connection" - Wireless Image

Description: Visual shows gradual transition of network from the beginning to modern era. Male V/O: It started with a single connection and the network was born, it soon grew from luxury to necessity, so AT&T builds a network just for you. One, that connects your entertainment, friends, family, devices and homes. We grow as you grow. Always evolve it to work for you, how and where you need. This is your network. The network of AT&T. LOGO, Tag-Line.

(Click image to play spot)

AT&T Monthly PR Impressions Vs. Ad Effectiveness Scores

AT&T	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16
Net Positive PR Impressions (10M) +	1388	1218	1375	969	476	428	596	861	455
ABX Index* for :30 TV ad	95	96	95	94	92	92	92	94	

+ Net Positive PR Impressions (Positive + Neutral – Negative)

* ABX Index – an ad effectiveness score based on a set of KPIs that correlate with outcomes. An average score = 100. The higher the score, the more likely the ad will have an impact. Scores range from 0 to above 200 depending on excellence of creative.

Correlations Between Impressions and Ad Scores Over 9 Months

AT&T	No Lag	1 Mo Lead	2 Mo Lead
Correlations Between :30 TV Ad and PR Impressions	r=.930	r=.649	r=-.858

 r= In statistics, the Pearson correlation coefficient is a measure of the linear correlation between two variables X and Y. In this case, the correlations are between PR impressions and advertising effectiveness scores for this TV spot.

AT&T (Wireless Image-Consumer)

"It started with a single"

Visual shows gradual transition of network from the beginning to modern era. Male V/O: it started with a single connection and the network was born, it's in grue grue from the luxury to necessity so AT&T builds a network just for you. One, that connects your entertainment, friends, family, devises and homes. We grow as you grow. Always evolve it to work for you, how and where you need. This is your network. The network of AT&T. LOGO, Tag-Line.

🖥 **Television** (30s)

First Run:
2016-01-12

Top Category:
Telecom, Cable and Internet

Category:
Wireless Communications

Sub-Category:
Image

ABX **95.5**

Marker Key: C Avg. for Category   M Avg. for Medium
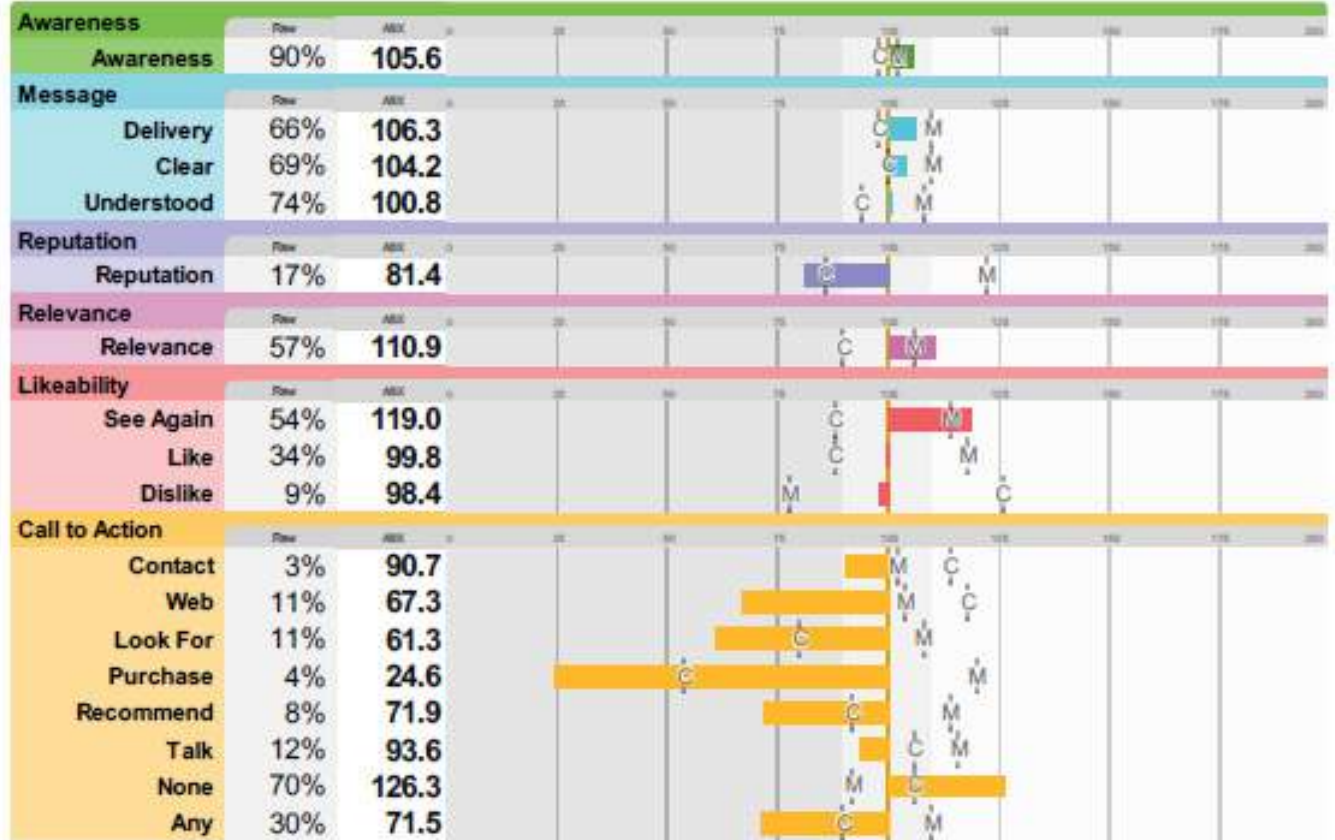
Category	Medium	Gender	Regions
98.8	**87.8**	Female **96.2**	West **106.8** Midwest **80.0** Northeast **85.3**
Frequent **116.6** Regular **92.9**	Frequent **94.9** Regular **75.9**	Male **92.6**	South **103.5**
Occasional **88.6** Never **77.1**	Occasional **63.7** Never **84.9**		

KPI Breakouts

		Raw	ABX
Awareness	Awareness	90%	105.6
Message	Delivery	66%	106.3
	Clear	69%	104.2
	Understood	74%	100.8
Reputation	Reputation	17%	81.4
Relevance	Relevance	57%	110.9
Likeability	See Again	54%	119.0
	Like	34%	99.8
	Dislike	9%	98.4
Call to Action	Contact	3%	90.7
	Web	11%	67.3
	Look For	11%	61.3
	Purchase	4%	24.6
	Recommend	8%	71.9
	Talk	12%	93.6
	None	70%	126.3
	Any	30%	71.5

Marker Key: C Avg. for Category   M Avg. for Medium

AT&T Online Display – "$0 Down with AT&T Next" – AT&T Next – 300 x 250

AT&T Monthly PR Impressions Vs. Ad Effectiveness Scores

AT&T	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16
Net Positive PR Impressions (10M) +	1388	1218	1375	969	476	428	596	861	455
ABX Index* for Online Display ad			97	97	93	93	94	95	

+ Net Positive PR Impressions (Positive + Neutral – Negative)

* ABX Index – an ad effectiveness score based on a set of KPIs that correlate with outcomes. An average score = 100. The higher the score, the more likely the ad will have an impact. Scores range from 0 to above 200 depending on excellence of creative.

Correlations Between Impressions and Ad Scores Over 9 Months

AT&T	No Lag	1 Mo Lead	2 Mo Lead
Correlations Between this Online Display ad and PR Impressions	r=.930	r=.649	r=-.858

r= In statistics, the Pearson correlation coefficient is a measure of the linear correlation between two variables X and Y.

In this case, the correlations are between PR impressions and advertising effectiveness scores for this TV spot.

ABX Advertising Benchmark Index

SAMSUNG Galaxy S7 "0 down" with AT&T Next

AT&T (Next)

"$0 down with at&t next"

$0 down

Online

First Run:
2016-03-09

Top Category:
Telecom, Cable and Internet

Category:
Wireless Communications

Sub-Category:
Wireless Service

ABX 96.0

Marker Key: **C** Avg. for Category **M** Avg. for Medium

Scale: 0 — 25 — 50 — 75 — 100 — 125 — 150 — 175 — 200

Category	Medium	Gender	Regions
99.4	**102.8**	Female **89.6**	West **89.3**
Frequent **109.0** Regular **105.3**	Frequent **111.8** Regular **103.2**		Midwest **89.7**
Occasional **74.0** Never **66.2**	Occasional **82.0** Never **66.5**	Male **100.7**	Northeast **89.7**
			South **103.6**

KPI Breakouts

	Raw	ABX
Awareness		
Awareness	94%	110.0
Message		
Delivery	59%	94.3
Clear	62%	92.8
Understood	69%	94.2
Reputation		
Reputation	18%	84.8
Relevance		
Relevance	44%	85.9
Likeability		
See Again	34%	74.3
Like	25%	71.4
Dislike	5%	49.5
Call to Action		
Contact	2%	54.0
Web	16%	101.6
Look For	14%	76.7
Purchase	9%	53.9
Recommend	6%	54.5
Talk	9%	73.5
None	66%	118.6
Any	34%	81.4
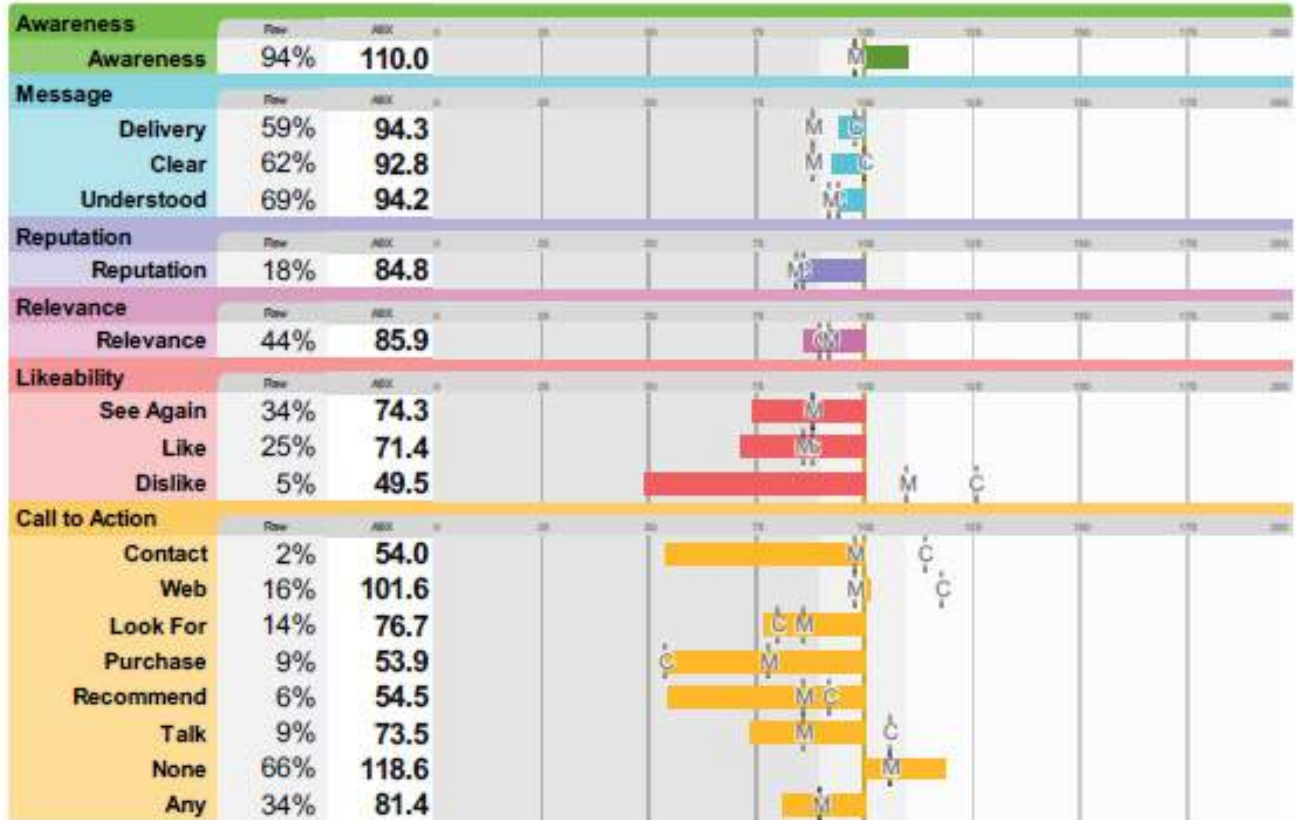
Marker Key: **C** Avg. for Category **M** Avg. for Medium

CONCLUSIONS

Toward an Understanding

The goal of this study has been to begin learning and understanding the relationship and outcome of earned media's impact on paid media. Both cases achieved this to some extent.

- The Hotels.com study mirrored the kinds of correlations we've seen again and again in anecdotal comparisons between non-paid media and paid. Much of the Hotels.com PR media focused on the topic of the TV spot, which was Captain Obvious Running for President. Seeing a high correlation between PR and ad scores in this case was not a surprise, and suggests great power in PR to increase the value of the paid media spend.

- The AT&T study showed a similar pattern between the PR media and the three ad scores, but the ad scores didn't change enough to know if they were impacted by PR. Why was that? Reasons may include:
  - The enormous volume of AT&T coverage (31,000+ clips) was about so many topics, products and messages, little likely overlapped with the advertising messages. In addition, a random sample of these clips would have been sufficient.
  - ABX tests on 140,000 ads shows that average scores for Purchase Intent and other Calls-to-Action are very low in Telecom (around 60%). It is harder to move the needle on creative scores in Telecom than in many other industries, so it's possible that PR IS contributing, but its impact isn't clear.
  - The AT&T PR Team suggested that future studies should be much more focused, like the Hotels.com study, with demographically-targeted earned and paid media over shorter periods of time. We agree with this suggestion.

As earned media continues to gain ground as a marketing tool and as paid media continues to move toward storytelling and content marketing, it is certain that earned and paid media will have even more interaction. This will make the measurement of cross-platform impact critical to understanding the full effect of advertising and marketing investments.

Our initial questions remain to be addressed by future research:
- The determination of what levels of news change are needed to generate measurable changes in ad effectiveness, and whether these changes are:
  - Is there a threshold that earned media must attain to see paid media impact?
  - Is this effect limited to specific industries?
  - Is it limited to specific product types or media types?

- The determination of a predictive model based on testing additional company earned/paid media across industries. Will the model be the same across industries, or will it be more nuanced? J. J. Klein, Chairman of ABX and former head of GfK Roper, posits the effect will be 80-90% the same across industries.

- The determination of the degree of impact News and Social Media can have on advertising creative effectiveness in both positive and negative situations, and what types of creative are best used in each case.

- The determination of how market mix models should be adjusted as the relationships between paid and non-paid media are better understood. Market mix models can help marketing and PR professionals know when to dial-up or dial-down major paid media expenses based on the news environment.

Potential Economic Impact of this Research

To get an economic sense of the impact of this research, one must look more closely at how advertising copy testing scores are used. Copy testing firms like ABX establish numerical indices to rate each ad.

- An ad that scores "Average" in effectiveness (ABX=100) should deliver expected outcome results for the media buy.
- Any ad that scores "Below Average" will deliver lower-than-expected outcome results and waste media spend.
- Any ad that scores "Above Average" should deliver higher-than-expected results and optimize its media spend.

While each advertising research firm uses its own proprietary indices, the measures themselves (comprised of recognition, recall, idea communication, persuasion, liking and engagement) have been validated over the years with the most well-known independent study being the Advertising Research Foundation's (ARF) Copy Research Validity Project (Haley, Baldinger,1991).

In a hypothetical example of an ad impacted positively by PR:
- A TV spot received an ABX Index score of 100 (Average).
- The TV spot had a $2 million ad buy against it
- The TV spot should deliver results commensurate with a $2 million media buy
- A positive PR campaign runs during this time and increases the ABX Index by 20%, up to 120
- Now, the $2 million ad buy delivers an extra $400,000 worth of impact on the media buy, which translates into higher outcomes, and PR can take credit for much of this.

Using the same hypothetical example, but this time with negative PR impact:
- A TV spot received an ABX Index score of 100 (Average).
- The TV spot had a $2 million ad buy against it
- The TV spot should deliver results commensurate with a $2 million media buy
- A news crisis hits during this time and decreases the ABX Index by 25% - down to 70
- Now, the $2 million ad buy loses $600,000 worth of impact, wasting the marketing budget.
- The marketing department should pull the ad off the air until the crisis dies down.

When this process can be seen by pre/post ad testing around a PR campaign, the value of PR takes on a new and exciting form. Since online testing now exists for advertising creative with 24/hour delivery of results at the lowest prices in history, the chance to test IMC using diverse types of earned, owned, paid and shared media, while seeing concrete results in a 'real world' testing environment, provides great opportunities for both PR and advertising scholars.

Since advertising budgets are many times the size of PR budgets, advertising teams are unlikely to think they need help from PR when planning new campaigns. So, it is incumbent on PR to initiate and build relationships with advertising/marketing that ensure teamwork in the future. Once advertising understands the power of PR to stretch advertising's media spend by impacting the effect of its creative, PR will be the sought-after party.

Limitations

From the beginning, we stated that this was an initial, exploratory study based on some anecdotal studies seen over many years by the researchers involved. While the smaller Hotels.com study produced the hoped-for results of higher ad scores following net positive media coverage, the large AT&T study showed limitations with the existing approach. Many new questions have emerged and are important to discuss for future research:

- Impact Flow – which media type comes first and impacts the other? This study used sequential ad tests before, during and after earned media events. Other scholars have used different sequences with varied results:
    - For technical brands online, news should come first and then advertising; for non-technical brands online, ads should run first and be followed by news (Micu, 2008).
    - Exposure sequence + publicity valence (Kim, Yoon & Lee, 2010).
    - Wait for negative news to subside before running any advertising (Meijer & Kleinnijenhuis, 2007).
    - Different types of crises affect ad perceptions in diverse ways (Kim & Choi, 2014).
    - Negative news followed by corporate image ads have a worse effect than corporate image ads followed by negative news (Pashupati, Arpan & Nikolaev, 2002).

- Other Factors or Variables – Other factors could easily have inserted themselves into a test model like this one, especially as the length of time was so long (9 months) and the number of clips (31,000+) were so great. Some of the other variables that have been studied by PR or advertising researchers include:
    - Brand Familiarity and Source Credibility both work with positive publicity toward greater ad credibility (Stammerjohan, Wood, Chang & Thorson, 2013).
    - The existing Reputation of the advertiser also plays a crucial role (Spotts, Weinberger & Weinberger, 2014).
    - Corporate Credibility and Celebrity Credibility both contribute to ad effectiveness (Goldsmith, Lafferty & Newell, 2000)

- Time Leads or Lags – this study contrasts No Lag, One Month Lag and Two Month Lag time periods for each ad. All tested ads had their highest correlations at No Lag. This should be explored further when more focused, tighter studies are undertaken.

This study was limited by researchers:
- Allowing the study to run too long.
- Not working closely enough with Hotels.com and AT&T to ascertain when major PR announcements were being made, or if crises were anticipated, and limiting test periods to being only around those peaks.
- Not limiting the publicity to coverage related to campaigns. While there is value in seeing how overall coverage affects ad creative, the information isn't as actionable as it would be if just campaign-related.
- Trying to see impact using too large a census of data.

Toward the Future

We also hope to explore many of these questions and improvements with the experience of this analysis to guide us. Based on the work to date, we advise either of the following methodological approaches.

Approach 1: Similar Methodology but Limited in Time and Target

- Each corporate partner would choose 2-3 ads that are focused on demographic groups that can be tracked in both advertising and earned media;
- ABX would work closer with the PR departments to determine major planned announcements
- Ads would be tested before and after the announcements, over a much tighter time frame (2-3 months max).
- The correlations approach would be repeated to see if a more targeted approach reduces variables and provides a clearer picture.

Approach 2: Forced Exposure Experiment

- Obtain 1-2 key news stories and 2-3 paid ads from each corporate partner
- Create two cells for each test: one survey cell would see only the test ads along with other paid media clutter from non-participants.
- The other survey cell would be identical except respondents would see both news stories and ads from the corporate partners and non-participants.
- Scores would be compared from the two cells to see if ads are scored higher when respondents are exposed to news.

We hope to continue this journey and invite interested corporate participants to join in for the next phase of exploration.

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ABX Advertising Measurement Methodology

The slides below illustrate the ABX KPIs and the ABX Index, which is comprised of only those KPIs proven to correlate well to outcomes through marketing mix models.
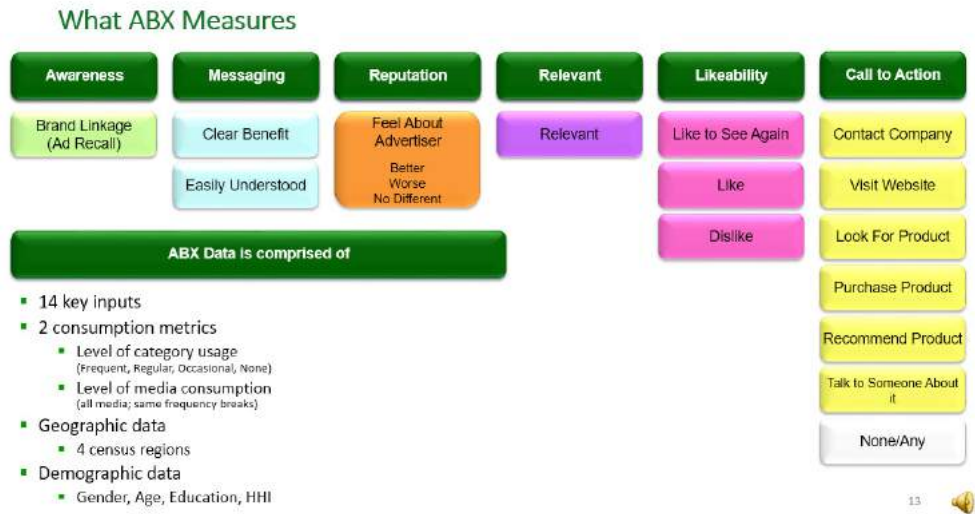

Appendix B

Case Study on Health & Beauty Brand

Market Mix Modeler Michael Wolfe, CEO of Bottom-Line Analytics, teamed up with ABX to compare the effects of media buys versus creative effectiveness on sales revenues for one of the world's largest cosmetic brands. ABX provided a robust set of creative scores for client ads across all media types over a period of 30 months, which were integrated into the model.

○ Results for Media Spend vs. Revenues – In the ideal world, media spend on an ad-by-ad basis would align perfectly with ad sales lift, but this is not the case in this study nor in the real world. As we see below, the correlation between the quantitative ad spend-per-spot and sales lift had a very low correlation of r2=.1138.
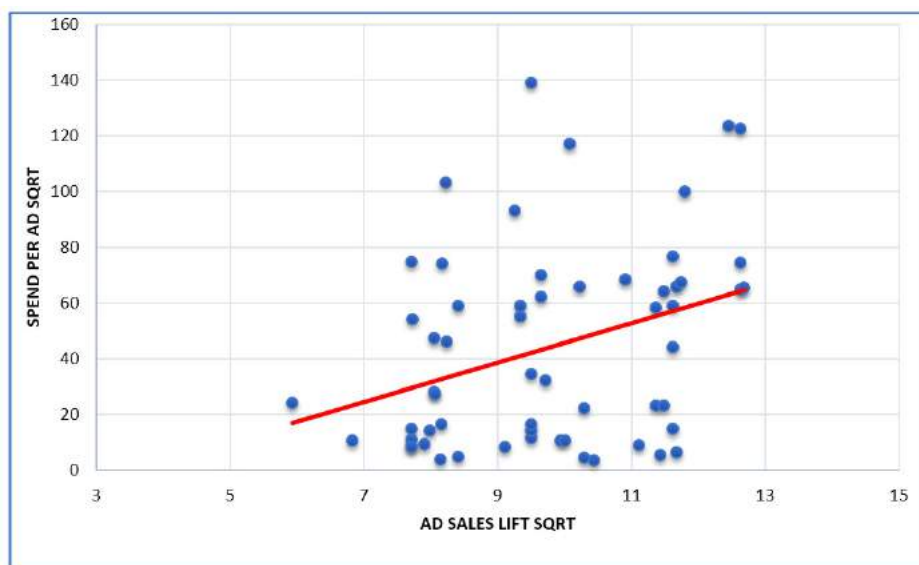
○ Results for Creative Scores and Revenues – Using the ABX Index as a qualitative measure of creative effectiveness, correlations now soar to $r^2=.0743$. If creative isn't good, media buys are virtually wasted. In the case study below, had the client used creative scores to allocate media budget, management could have generated an incremental +$21 million in revenue. Creative effectiveness drives sales whereas ad spend is a much weaker driver