EVALUATING TV EFFECTIVENESS IN A CHANGED MEDIA LANDSCAPE

MarketShare

BACKGROUND

Television is a transformed medium in a rapidly evolving media landscape

In a multi-screen, multi-channel, Internet-of-things world, television is a transformed medium in a rapidly evolving media landscape. Consumers have more choices than ever before of where to find the news, information, entertainment and other content they want. And marketers face an increasingly daunting task of where to invest their marketing dollars – both online and offline – to maximize sales and achieve the best ROI.

With the advent of programmatic buying and other digitally-enabled technologies, marketers are shifting more investments to mobile and other digital channels due to their perceived efficiency. The decision of where to invest across different media, however, requires a more complex analysis than most marketers realize and must take into account a wide range of online, offline and non-media factors that create complex synergies and interactions between different media in an effective marketing plan.

In this new environment, how has the effectiveness of TV advertising changed—and how should marketers consider television in the context of the broader marketing mix?

Turner Broadcasting Company and Horizon Media engaged MarketShare – the global leader in advanced marketing analytics technology – to address this question through an analysis of the direct and indirect impact of TV marketing on sales, and television's role in a marketer's strategic budget allocation.

"From my standpoint, the most effective and efficient way to reach consumers is still TV. It is still the best giant megaphone available to marketers and a great way to reach a lot of people at once." **—Marc Seguin, CMO of Popchips (Digiday, 4/20/2015)**

EXECUTIVE SUMMARY

MarketShare evaluated data from thousands of marketing optimization models across a variety of industries that include Financial Services, Automotive, Telecommunications, Hospitality, Consumer Packaged Goods and Retail. The analysis included proprietary data generated from hundreds of studies of actual company marketing spend and business outcomes (not panel data) and informed "real-world" experience from extensive marketing analytics work in each of these sectors.

In addition, we examined decades of research and applied marketing science, and utilized MarketShare Benchmark, our planning and allocation software application that uses proprietary data to compare a company's marketing allocations against its industry peers and to run what-if scenarios.

These findings show that television provides a direct and meaningful sales lift not only by increasing awareness and consideration, but also by increasing the effectiveness of other marketing vehicles further down the purchase funnel.

From this analysis, across the industries examined, television's effectiveness appears to be undiminished over the five year period examined from 2010-2014. Our results show that television remains a highly effective marketing vehicle and a significant component of the optimal marketing mix across the range of industries MarketShare analyzed.

These findings show that television provides a direct and meaningful sales lift not only by increasing awareness and consideration, but also by increasing the effectiveness of other marketing vehicles further down the purchase funnel. Specifically:

1. Across the industries examined, **TV has the highest relative efficiency in achieving KPIs**, when compared to other media drivers such as digital and other offline such as print and radio;
2. In spite of the changes in consumer habits over the last few years, **TV's effectiveness at driving advertiser KPIs has not diminished;**
3. **Marketers can use advanced analytic techniques to optimize TV spend more effectively.** Our analysis indicates that marketers should not limit rapid-analytics driven optimization to digital marketing alone. Leveraging high frequency data to gain quick insights on performance to reallocate resources by TV type, network, creative, and day part can impact results materially;
4. **Premium online video from broadcast and cable TV networks is disrupting the digital media mix.** Despite lower impression volumes, premium video content is clearly more effective than user generated and short-form content.

KEY FINDINGS DETAIL

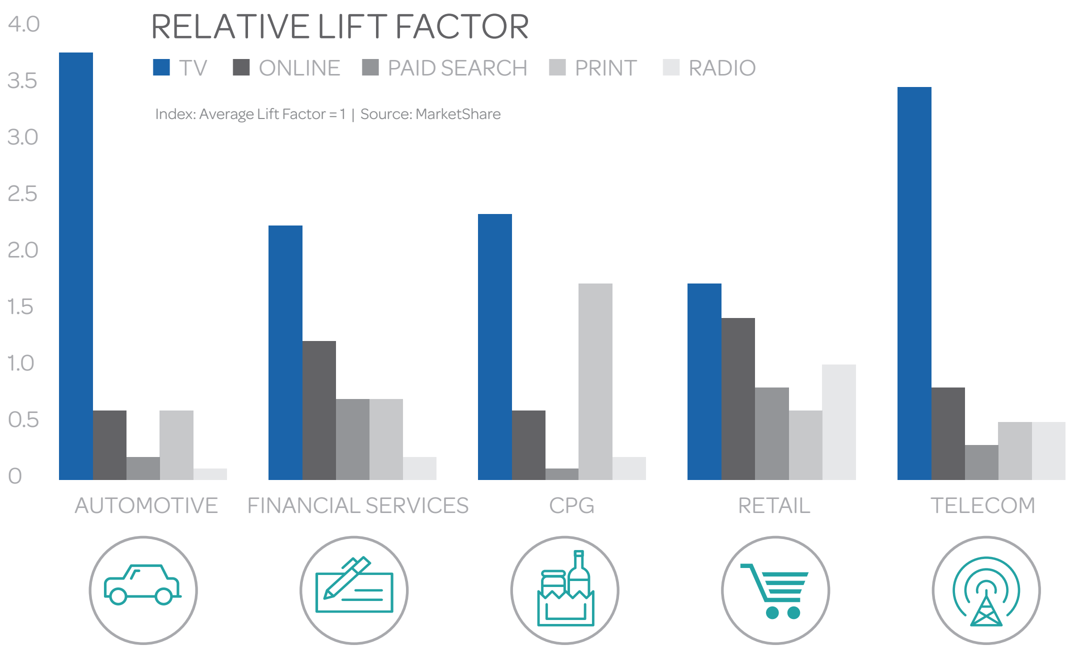
TV is consistently more effective at impacting KPIs such as sales and new accounts than are paid search, print, or online.

What follows are our findings addressing all four of the questions above. For more detail about methodology and technology applied, please continue to the Appendix.

1 **Across a broad range of industries, TV has the highest relative efficiency in achieving KPIs at similar spending levels when compared to other media outlets.** To better understand the role TV plays in an optimal marketing media mix, we used MarketShare's Benchmark application to capture the relative lift (impact) of TV, online display, paid search, print and direct marketing advertising across the automotive, financial services, consumer packaged goods (CPG), retail, and telecommunications industries.

As shown in the chart below, TV is consistently more effective at impacting KPI's such as sales and new accounts than are paid search, print, or online (display and social). These results have held true over the last 5 years, despite the explosion of digital media over that time. Based on this research, MarketShare has found that at similar spend levels television's lift is consistently 7x paid search and 3x online for the industries described here.

In addition to its direct impact on driving sales, TV's influence on the effectiveness of marketing communications throughout the purchase funnel is consistently the highest amongst media channels. MarketShare's research showed that for two firms representing the financial services and automotive industries, the full impact of TV



is not adequately captured solely by its direct effect on KPI outcomes e.g. unit sales. TV is also a major driver of consumer interest and desire. As such, TV is a major driver of indirect outcomes such as inbound calls, organic search query volumes and website visits—which, in turn, lead to direct outcomes, such as purchases or other significant conversions.

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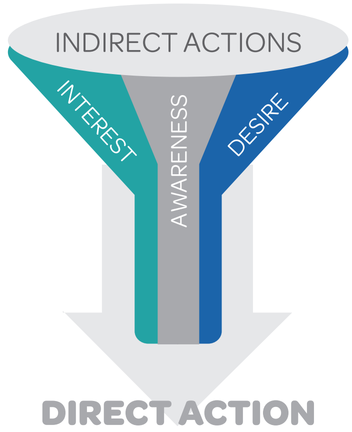
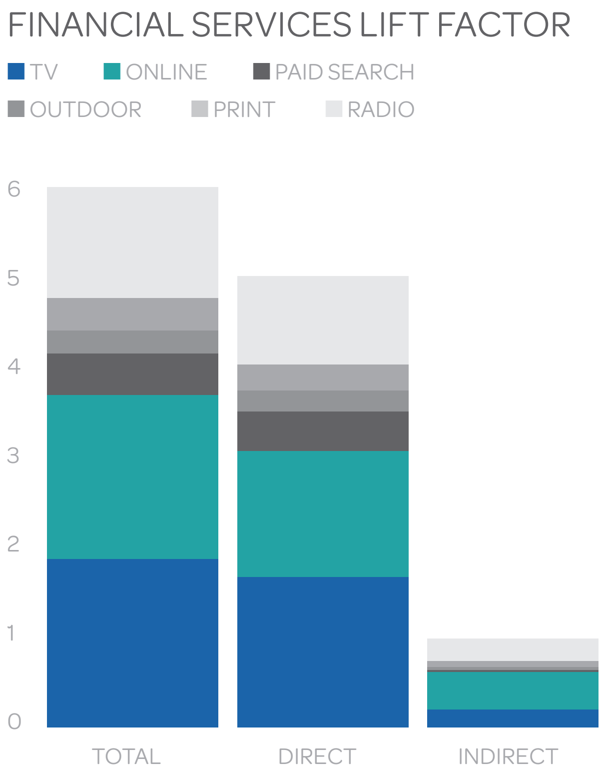


Specific findings from each of the industries below:

Financial Services

In the online banking and financial services industry vertical, one might expect digital marketing channels to represent the lion's share of the marketing impact. And to be certain, MarketShare did find that Online Display in particular is a highly effective sales driver and the most significant contributor to indirect engagement metrics such as inbound customer service calls and prospect web activity. However, perhaps counterintuitive to many online business marketers, we also found that TV generates the highest overall sales lift and considerable indirect lift, when compared against other channels such as paid search, radio, and outdoor advertising. These findings further reinforce the importance of understanding how paid media impacts your business in order to make better decisions around resource allocation.

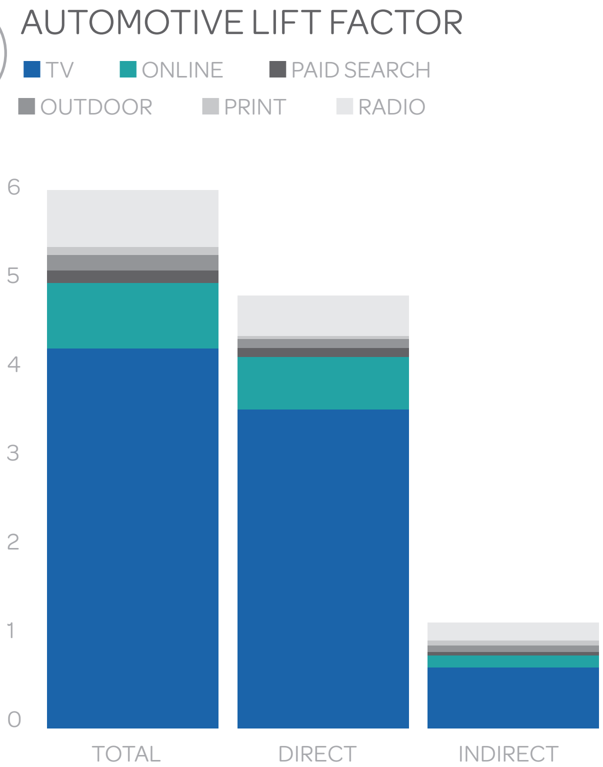


Index: Average Lift Factor = 1 | Source: MarketShare

Automotive

For *luxury* vehicle advertisers, TV's indirect sales impact alone nearly outperforms the individual marketing impact of online display. This is likely because television is optimally designed for conveying experience and motion—both obviously important to luxury car consumers—and TV achieves reach that the other outlets examined do not. An important corollary to TV's strong indirect sales impact is that accurately measuring TV effectiveness is subtle work, often demanding finer measurements than standard KPI's (such as unit sales).

Advertisers that do not consider the full impact of TV are at risk of misallocating resources.

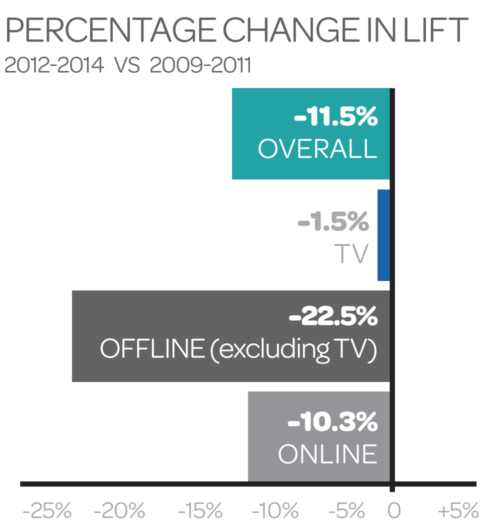


Index: Average Lift Factor = 1 | Source: MarketShare

2 **In spite of changes in consumer media consumption habits, ad products, and technology over the last few years, TV's effectiveness at driving advertiser KPIs has not diminished.**

For one example of these trends playing out with a particular advertiser, consider the following MarketShare study of a luxury auto manufacturer. Specifically, the study analyzed how the effectiveness of media has changed for the automaker over time, comparing 2012-2014 with the three year period immediately prior, 2009 – 2011.

The study found, for all media analyzed, an 11.5% decline in media effectiveness across the board— likely due to the splintering of media channels brought about by the new digital landscape. However, TV is the only medium that retained its relative effectiveness, as compared to the other channels, over that time period.



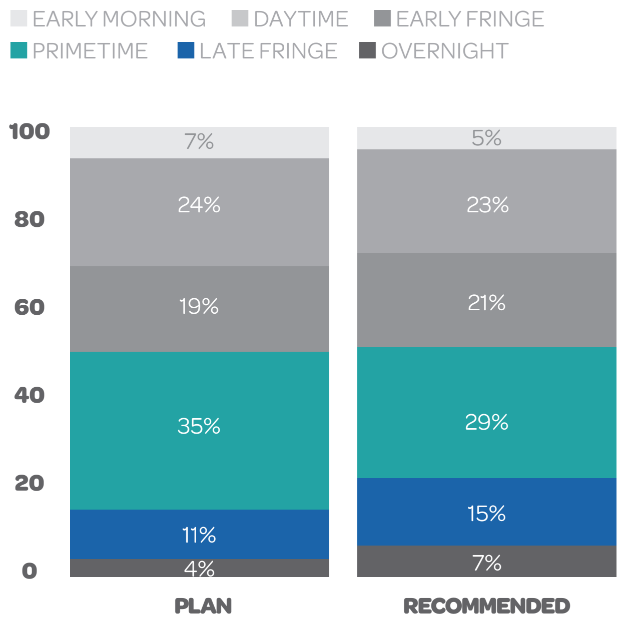
Lift - %Δ in indexed values | Source: MarketShare

In this new environment, we wanted to learn if TV advertising changed its fundamental role as a branding and reach medium. Other offline channels, by comparison, have been challenged significantly by digital competitors. Thus, per our analysis, an investment in offline spend exclusive of TV yielded approximately 20% less in 2012-2014 than in the prior period. Meanwhile, the value of many digital channels has been eroded by such factors as ad-blocking, click fraud, and visibility issues. With nearly 50% of display ads lacking viewability, for instance, broad reach online channels have experienced a decline in effectiveness.[1]

To be sure, TV spend allocations are not one-size-fits-all. Specific spending recommendations will vary by advertiser—depending, in part, on where a marketer's media spend lies on the outcome response curves for each advertising medium, and the interaction effects between media channels.

3 **High-frequency consumer interactions, such as inbound calls and website visits, are important data sources to guide the TV mix.** Because TV advertising drives measurable actions such as inbound calls and online searches, TV advertisers can leverage these interactions as key data points to evaluate TV effectiveness. Leveraging indicators such as these on behalf of an online subscription service, for instance, MarketShare's MarketShare DecisionCloud™ software was able to recommend a very granular reallocation of the TV budget across channel group, daypart, and ad length. Putting these granular recommendations into effect drove a nearly 3% increase in sales for the brand. (See chart on right for example of daypart recommendation.)

RELATIVE OPTIMAL TV ALLOCATION BY DAYPART



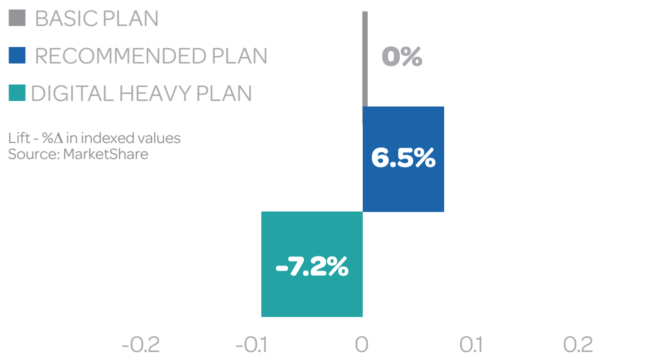
Ssource: MarketShare

Because TV advertising drives measurable actions such as inbound calls and online searches, TV advertisers can leverage these interactions as key data points to evaluate TV effectiveness.

1 Vollman, Andrea, (June 28, 2013) "Viewability Benchmarks Show Many Ads Are Not In-View but Rates Vary by Publisher," comScore

Due to TV's impact as an indirect sales driver, decreasing TV spend by too much can also have serious consequences. In the example on the right, if the same telecommunications advertiser had reduced its television budget by 20% and reallocated those funds into online display, the advertiser would have experienced a 7% *decrease* in sales.

MEDIA MIX : PERCENT CHANGE IN SALES



While there are several reasons for the lower effectiveness of media plans that overindex on digital, one that clearly stands out is the loss of reach. While online and mobile popularity have grown tremendously, TV is still the "best giant megaphone" to convey a message to a large audience of consumers.

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4 **Premium online video from broadcast and cable TV networks is disrupting the digital media mix.** Digital video is an exploding segment of the digital media mix, projected to erode ad spending share from traditional online display and search advertising in the coming years.[2] MarketShare examined the effectiveness of online video using a year's worth of data from the hospitality, retail, and financial services industries. The study examined the ROI across four groups of video publishers:

- **Group 1:** Distributors / User Generated – e.g. Hulu, Crackle, or YouTube
- **Group 2:** Exchanges – e.g. TubeMogul, Tremor, or YuMe
- **Group 3:** Premium – e.g. Broadcast and Cable TV network online video sites
- **Group 4:** Highly Targeted – e.g. TripAdvisor, MLB, or Bloomberg

(We defined ROI by determining the attribution of each of these video groups to revenue, and dividing spend for each group by the fraction of revenue the group drove. See appendix for more methodological background.) Our findings are illustrated in the graph on the next page.

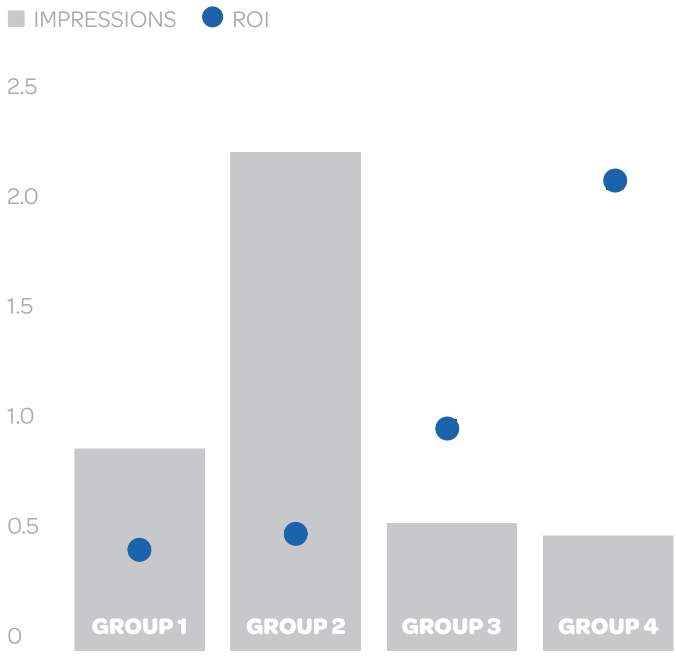
While the results should be considered directional only, there is a notable ROI gap between premium outlets and targeted outlets versus the ROI of distributors and exchanges. Indeed, the latter two groups underperformed their peers in ROI despite having 2-7x the amount of impressions. There are many possible reasons why this is the case, including differences in content quality, ad inventory quality, and user experience across the various types of online publishers. To offer a sense of what types of content create high-quality video inventory, consider sports.

2 "YouTube Owns Nearly 20% Share of US Digital Video Ads" eMarketer (September 11, 2014)

Within Group 3, sports content performed particularly well since it is long-form, brand friendly, and appeals to two of the most sought after advertising segments, men and millennials.

Leading media sellers, for their part, seem increasingly aware of the value of high-quality content (and of the fact that brands will always follow the audience). For instance: in 2014, YouTube launched Google Preferred, which allows advertisers to buy ad space next to only high-quality, professionally-produced content, such as *The New York Times* and Vice Media.[3]

EFFECTIVENESS OF ONLINE VIDEO



Index: Average ROI = 1 | Source: MarketShare

CONCLUSIONS

After evaluating the data from thousands of marketing optimization models, considering decades of research and applied marketing science, and utilizing the MarketShare DecisionCloud™ software, we found that **TV is still the most powerful business driver for advertisers,** outperforming multiple digital and offline channels at driving key performance metrics. The analysis also reported **higher ROI for TV networks' premium online video properties** when compared to short form video content from non-premium publishers.

When making marketing allocation decisions and evaluating the use of TV as an advertising medium, marketers should consider: the strength of television's effectiveness for their industry; its synergistic impact on other marketing vehicles; and the need for consistent, adequate and optimally-timed TV spend.

TV is still the most powerful business driver for advertisers at driving key performance metrics. TV networks' premium online video properties deliver higher levels of ROI.

3 Brustein, Joshua, (April 29, 2015) "How Facebook Could Ruin YouTube's Party," Bloomberg Business

APPENDIX

UNDERLYING METHODOLOGY

MarketShare applies econometric regression techniques to establish the mathematical relationships between marketing investments and sales outcomes by relating the week-to-week shift in sales volume to the presence/absence of multiple marketing tactics while controlling for all other key factors that impact sales volume, such as the economy, price and competitive actions. As a result, we are able to find which tactics/combinations create the most positive/negative sales variance.

Underlying MarketShare's approach to evaluating marketing effectiveness are three key tenets that help us to determine optimal marketing allocations and accurate attribution:

- **Diminishing Economic Returns:** Multiple studies of the relationship between advertising and sales demonstrate that past a certain point the rate of revenue return realized for each increment of ad spending declines.[4]
- **Marketing is Synergistic:** Individual marketing resources do not work in isolation, but rather in conjunction with one another. The result of this synergy, where resources work multiplicatively with each other, is that the marketing spend in any given medium increases the impact of spend on all other media.[5]
- **Separation of Causality:** Sales revenue is comprised of two main components: the Base involves external factors such as the economy, industry and local market trends and internal factors such as brand equity; and Marketing Impact captures the daily effect of all the marketing resources used, e.g., TV, print, paid search, display, radio, sales force and trade promotions.[6]

Recommending which marketing touch points to use at what spend levels depends on the nature of the purchase decision being made, how close the company is to the point of diminishing returns for any given touch point, and the level of interaction between the touch points.

Typically a marketing allocation model quantifies the impact of media on one brand alone; the models we develop measure an entire industry vertical using observations at the brand level.

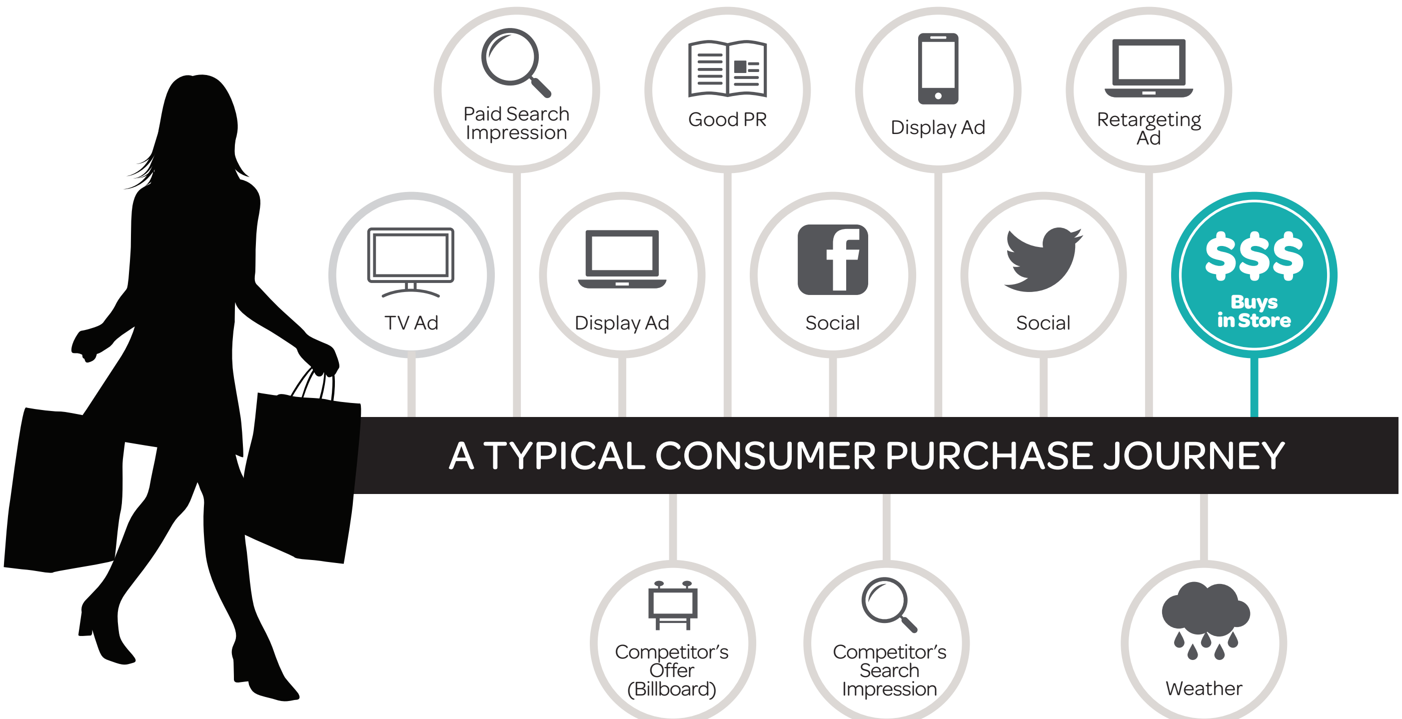
In order to accurately measure the impact of media on sales, the models also have to include the entire ecosystem of drivers that can impact sales. That is why we include other factors such as competitive activity, launch dates, seasonality/holidays, and more.

Our approach also uses a log-log multiplicative model structure to capture how media touchpoints work synergistically to drive response (e.g., direct mail is more effective when supported by TV and online display) and the impact of marketing through intermediate pathways, e.g. TV media drives online interest through organic online search and increased awareness of brand-related tweets (e.g., earned conversations). The models are designed to capture all drivers of sales, whether paid or unpaid, direct or intermediate.

4 Vakratsas, Demetrios, and Ambler, Tim (1999) "How Advertising Works, What Do We Really Know," *Journal of Marketing*, 63 (1), 26-43

5 Bucklin, Randolph E., "Marketing Models for Electronic Commerce," B. Wierenga (ed.), *Handbook of Marketing Decision Models*, Chapter 10, Springer Science Business Media, LLC 2008

6 Hanssens, Dominique, "Models for the Financial Performance Effects of Marketing," B. Wierenga (ed.), *Handbook of Marketing Decision Models*, Chapter 15, Springer Science Business Media, LLC 2008

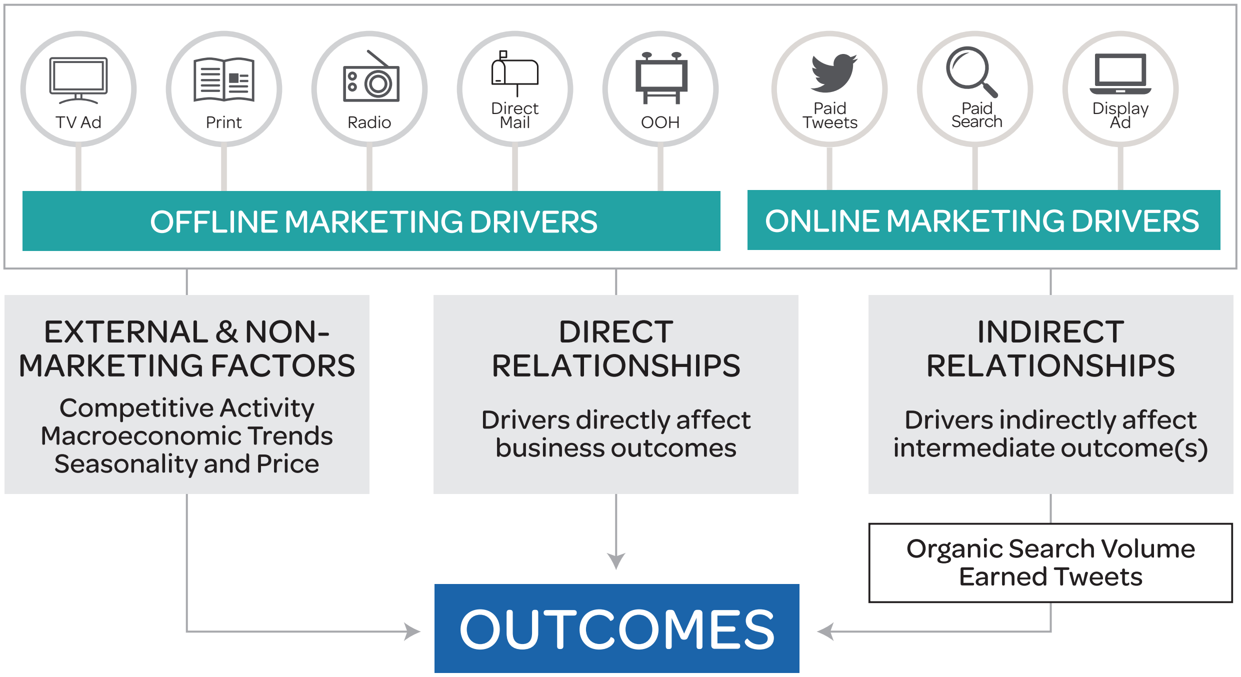


BASIC MODEL STRUCTURE

We utilized a multiplicative model form that reflects the diminishing returns of marketing. The multiplicative form is then translated into the following basic log-log equation:

log(Sales) = log(Base) + α1log(X1) + α2log(X2) + α3log(X3) + error

In practice we use a more nuanced structure, and state of the art estimation techniques, but the fundamental principles are the same as what is listed above.



This model form also looks at both the direct relationships of media, as well as intermediate relationships – the drivers that indirectly affect outcomes, like organic online search queries and earned tweets. These outcomes are modeled separately to measure media's impact on driving them as well. The final model becomes a system of all the equations linked together, providing a more complete view of the direct and indirect impact of media on sales. The above represents the model structure used for each category model.

RIGOROUS MODEL VALIDATION

MarketShare applies a consistent and robust analytic approach and utilizes a battery of key analytic steps and statistical tests to develop econometric marketing response models that measure the impact of marketing on the selected financial outcome(s). This is often a balance between marketing sensibility and statistical fit. In checking the sensibility of the results we will do the following:

- Check for acceptable measures in marketing contribution, source of volume change, and relative effectiveness of each touch point (coefficient)
- Check for multicolinearity and combine or omit variables to omit bias
- Conduct sanity checks against known business truths and existing knowledge from the client. The source of our empirical generalizations is our portfolio of experience across 1000s of models and channel specific coefficients across multiple products and industries

HIGH-FREQUENCY ATTRIBUTION

Our TV Attribution solution leverages big-data, advanced analytics and reporting tools, such as:

- DMA-level ratings for each TV airing from Rentrak, which leverages Set-top Box Data (STB) from over 24 million television in the United States
- DMA-level response data (site visits) through web analytics or conversion metrics in ad serving logs
- Advanced analytics models to estimate the causal impact of each airing
- Reporting tools for insights and planning

Why modeling immediate response? Since a significant portion of the United State population browses the Internet while watching TV, or is in the proximity of their laptops, tablets or smartphones, a TV commercial brings a brand or a product to the attention of consumers, and there is an immediate increase in online activity. The bursty nature of minute-by-minute data makes immediate response modeling extremely powerful, capturing spikes in searches, site visits or inbound calls following TV ads.

MarketShare uses higher-frequency (minute by minute) visit data instead of lower-frequency conversion data, as higher frequency data offers much higher levels of statistical significance.

While purchases due to advertising typically are recorded within days or weeks after ad exposure, site visits can show causal effects within minutes or even seconds of the airing. With the ability to observe consumers on very short timescales, the before-after analysis produces similar results to those generated with randomized experiments.

In addition, narrowing audience segments and measuring outcomes on individuals at each DMA who were likely to see the ads vs. national audiences improves the power of the measurement. With its TV attribution solution, we leverage minute-by-minute data for 210 DMAs in the United States for commercial ratings and for web site visits.

The granular dimensions in the TV commercials to be used in the TV attribution comprises dimensions such as campaign, creative, network, daypart, ad length and pod position, which are less easily analyzed (when at all possible) using traditional modeling techniques, precisely due to time aggregation.

As the models are updated on the weekly basis, the insights can be reviewed using a dashboard that shows the impact of TV campaigns on web visits indexed across time, as well as changes in impact over time due to: different campaigns or creatives, network/daypart/ad-length mix, consumer responsiveness or campaign flighting.

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THE UNIQUE MEASUREMENT DIMENSIONS OF TELEVISION

When we consider the use of television in the marketing mix and the lessons used to inform budget allocations, it is important to first acknowledge the attributes of television. TV advertising generates awareness, enhances familiarity, attaches emotion and communicates experience. TV also provides advertisers with the ability to achieve significant reach quickly.

How effective TV advertising is for a particular brand or product and the portion of the marketing budget it should be allocated is determined by a number of factors, including nature of the brand/product being offered, competitor offerings and marketing activities and, ultimately, customer choice. At the brand and product level it is difficult to find, secure and sustain true product and cost differences. On these dimensions, firms compete quickly and head-to-head, rendering the brand personality and "right for me" aspects of consumer perception the arena for winning the customer's choice. Imparting these more emotional brand qualities continues to be a key role that television plays.

CHALLENGES TO CAPTURING THE EFFECTIVENESS OF TV

Among the many marketing vehicles that brands can deploy in their campaigns, each has a differing capacity to deliver image, emotion, information and experience relating to the product or service. This requires marketers to take into account the ways in which consumers experience, interact with and formulate opinions about their brands.

It is important to understand that not every successful marketing effort leads directly to short-term sales; it can also support the overall marketing strategy by contributing to Brand Equity, which increases base sales and/or supports more tactical conversion efforts by driving a specific behavior.

Understanding and evaluating the impact of offline media (like Television) is complicated by the more direct pathway often observed between media lower on the purchase funnel (like Online Display and Paid Search) and customer purchase actions. We have also seen many cases where clients mistake "cost per x" efficiency for effectiveness, or do not have clear, established and objective metrics for measuring the impact of certain media vehicles, such as social media, on sales.

An important question for marketers becomes: **How much of the incremental revenue to the purchased brand should be attributed to the TV commercial versus each of these other marketing drivers?**

Capturing the full sales impact of any single media vehicle, when multiple vehicles may influence consumer behavior at key points during the purchase process, is fundamental to assessing the optimal marketing mix. The case in which a single marketing vehicle directly generates a sale is less likely to happen than the scenario in which the consumer is prompted by a TV ad to search for additional information online, then to click on a paid search ad, learn the product is available at a local store within his desired budget and complete the purchase at that store. Attribution becomes cloudier when you consider that the TV ad, the paid search ad, price promotion, in store promotions, shelf space and location all contributed in some way to completing the sale.

TECHNOLOGY APPLIED

MarketShare DecisionCloud™, the marketing analytics expert system developed by the marketing scientists, practitioners and agency executives of MarketShare, uses advanced econometrics to connect a company's marketing investments with its revenue and profit. Using historical data relating to sales and advertising expenditures and information about the brand and its consumers, MarketShare DecisionCloud™ applications analyze the optimal marketing budget, mix and spend by media vehicle with a focus on targeting revenue or maximizing profit.

The data library housed in the MarketShare DecisionCloud™ currently addresses over $100 billion in advertising spend and over $800 billion in revenue. The studies in the library cover over 200 US DMAs and 45 countries, and contain existing and new products, and all marketing touch points (both offline and online.)

ABOUT MARKETSHARE

MarketShare™

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