

Executive Summary

ATTRIBUTION, AND SPECIFICALLY TV ATTRIBUTION, HAS EVOLVED SIGNIFICANTLY IN THE LAST FEW YEARS.

Digital media by its very nature is easily correlated to online behavior and response metrics, whereas the impact of TV advertising and other traditional offline media has been more challenging to measure.

Once confined to brand and awareness metrics, the world of TV attribution has now expanded to measure responses and assign value throughout the purchase funnel.

This paper focuses on that evolution, illustrating TV's value in the marketing mix through a range of case studies from across the industry, as well as providing the reader with a comprehensive yet simple understanding of the world of attribution.

Key Takeaways

- 1 Attribution has evolved from a basic marketing mix modeling approach to a multi-touch, cross-screen approach, improving granularity, efficiency and accuracy
- Advancements in data and the processing of that data has enabled marketers to measure the full-funnel impact of their TV marketing spend
- 3 It is vital to employ best practices against baselines and statistical significance to deliver valuable and consistent results
- Selecting the right attribution partner will depend on industry vertical and/or campaign objective
- Managing data agreements and expectations, as well as ensuring all privacy safeguards are in place, are keys to attribution success

Introduction

TODAY'S MARKETERS ARE FACED WITH EVER-INCREASING CHALLENGES TO ACCURATELY UNDERSTAND

their customers' behaviors and intentions. In a cross-screen world of content consumption, it is particularly challenging to understand which marketing channels are driving the highest ROI, along with the potential halo effects between offline and online media. Simply put, marketers continually seek proof that the campaigns they run, and the media they buy, are producing results.

Historically speaking, many marketers have used marketing mix modeling (also known as media mix modeling) for measuring the return on their media investment. This "top down" approach typically incorporates data across marketing channels to produce an estimate of the sales contribution and ROI of each channel. However, marketing mix models have limitations as they are typically examined only on a periodic basis, such as annually, and utilize multiple years of historical data. This leads to the development of predictive macro trends which don't

Marketers continually seek proof that the campaigns they run, and the media they buy, are producing results.

produce sufficient data to drive future marketing tactics like precise channel optimizations.

These limitations have recently given rise to **attribution** modeling which is a more dynamic approach to managing an advertiser's ROI across marketing channels. Attribution is a method that assigns credit to the marketing elements that consumers are exposed to along their journey to purchase.

Algorithms or statistical models assign value to each channel's ability to drive desired business outcomes whether it's brand lift, consideration, web/in-store traffic or sales. This "bottom up" approach differs from marketing mix modeling since attribution exists at a micro level, relying on very granular data at the household, individual consumer and/or device level.

Attribution modeling currently exists in several forms:

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Multi-touch attribution assigns credit to the multiple digital/data-enabled touchpoints that consumers encounter along the path to conversion









Cross-channel attribution assigns credit to all offline and online media activities within a consumer's journey

CHART 1
The Evolution of Attribution Models

	Marketing Mix Modeling	First/Last Touch	Multi-Touch Attribution	Cross-Channel Attribution
Approach	Top Down Broadcast/Mass Media	Bottom Up Single Channel Targeted Media	Bottom Up Single Channel Targeted Media	Bottom Up Mass & Targeted Media
Timeframe Data Granularity:	Media Investment / Sales	Individual	Individual	Individual & Household
Results Updated: Path to Purchase	Quarterly No Visibility	Daily Single Channel	Daily Single Channel	Weekly Multiple Channel
Purchase		Single Exposure	Path-to-Purchase Multiple Exposures	Path-to-Purchase Cross-Channel Exposure

Originally, attribution models were born out of digital measurement due to their "closed-loop systems", straightforward correlation and ability to provide real-time data for quick in-campaign optimizations. With a digital-only methodology, these models would look at how digital activity impacted online sales and then attribute ROI exclusively to these channels. In these early days of attribution, this siloed digital approach typically led to a reliance on "last touch" or "last click". This fully attributed a conversion to the last action taken before a purchase even if a consumer was exposed to an advertiser's message several times across multiple platforms, such as TV.

Accurately measuring the impact of TV advertising on driving a brand's key success metrics has long been a challenge due to the lack of granular data needed to feed past models. In order to measure the true impact of TV, or any media for that matter, it's important to understand the consumer journey and how consumers interact with a marketer's advertising across platforms and devices before making a purchase decision.

Enhanced sophistication has arrived through the development of more complex attribution models that aim to integrate online and offline media into one solution. Measurement of key performance indicators has evolved from solely focused on sales to additional metrics such as brand recall, consideration, store visits, website traffic and more, depending on the marketer's goals.

The purpose of this paper is to demystify the role of attribution by exploring the basics behind the process and educating advertising professionals through best practices and real-world case studies.

Master the Basics

Demystifying First/Last Touch Attribution

Advertisers invest significantly in finding the right way to connect with consumers. While the industry has relied heavily on first and last touch attribution, there are many flaws and issues with both approaches and they do not show the full picture.

For example, while a social media ad may be the driver of increased online traffic, how much of that traffic actually translates to a sale? How many consumers were exposed to brand messaging prior to viewing that advertisement? Understanding the factors of media exposure and the consumer purchase path can be challenging.

Last touch attribution will tell marketers which channel the consumer was interacting with, prior to converting. While one can debate that this last touch was the reason the consumer bought a product or visited a website, a conversion is most often the result of a cumulative effect of exposure and therefore it is vital not to discount all the channels that led to that last touch.

It is important to capture all touches on the consumer journey to tell the whole story of what attributed to a conversion — not *just* the first or last touch.

CHART 2 **Demystifying First/Last Touch Attribution** First Touch Example 1st Visit 2nd Visit 3rd Visit 4th Visit 100% Credit 0% Credit 0% Credit 0% Credit Display ΤV **Paid Search** Social Last Touch Example 1st Visit 2nd Visit 3rd Visit 4th Visit 100% Credit 0% Credit 0% Credit 0% Credit Display **Paid Search** Social

Household Level Ad Exposure Impact

TV campaigns deliver high reach which makes it critical to include household level ad exposures in attribution analytics. Ad exposure can be captured either at the individual/device level (e.g. digital, connected TV (CTV) and over-the-top (OTT)) or at a household level, where TV data is based on total consumption via the set-top box (STB).

Many of today's consumer decisions are made on behalf of the entire household, rather than by one individual, therefore making household level ad exposure very important. Aside from consumer household decisions, measuring ad exposure at this holistic level can be more deterministic and effective than at the device level since matching to an actual device can be probabilistic.

When an advertiser wants to match exposed and unexposed households to determine ad effectiveness, it is important to select and balance a proper control group to the target population: both in terms of consumer attributes and time spent on TV in order to understand impact within the exposed/unexposed households and the lift/frequency for that campaign. Additionally, since the majority of third party data in the industry is based on households, measuring at the household level is easier and more accurate.

Household attribution requires detailed data streams for each household. All digital data must be integrated through device matching. TV's set-top box data must be tied to a household by mapping devices and offline purchases with marketing activities. Over time, many



companies may seek to use digital and TV device graphs, mapping an individual's IP address to household level ad exposure.

Smart TV ad exposure data can also be used to measure outcomes. **Automatic content recognition** (ACR) technology typically identifies TV programs and movies being viewed in real-time and provides insights into the content that was watched. The number of third party measurement providers that use opt-in ACR viewing data has grown in the past year and employing the right data set can help paint a more accurate, multi-touch picture of the consumer journey to a sale or conversion.

For example, by adding in smart TV data for a brand awareness campaign and matching the IP addresses of the TV (where the viewer saw the ad) and the digital device (used to visit the website), it is possible to understand consumer exposure using different media throughout the path to purchase.

With the aggregate of data from Smart TVs, set-top boxes and digital, marketers can now construct an entire view that provides a deeper understanding of viewership across all platforms in order to easily optimize and activate buying across linear TV and digital. This ultimately provides a more accurate measurement of ROI and gives advertisers confidence that they are spending their ad dollars more effectively.

The Purchase Funnel & Advanced TV's Multifaceted Role

Marketers are constantly looking for ways to accurately measure brand awareness, tying upper funnel brand awareness activities to bottom of the funnel sales and ROI. The main goal of attribution is to allocate credit where it's due, allowing marketers to prioritize their media spend and deliver maximum results, whether it be at the upper part of the funnel or the bottom.

The purchase funnel is a visualization of the process of turning leads into customers. Like a funnel, marketers want to capture as many leads as possible and grow prospective customers through brand awareness, down through consideration and intent until a sale or conversion is made. Executing campaigns at the middle or bottom of the funnel to drive conversions when there is limited brand awareness will raise the cost per conversion.

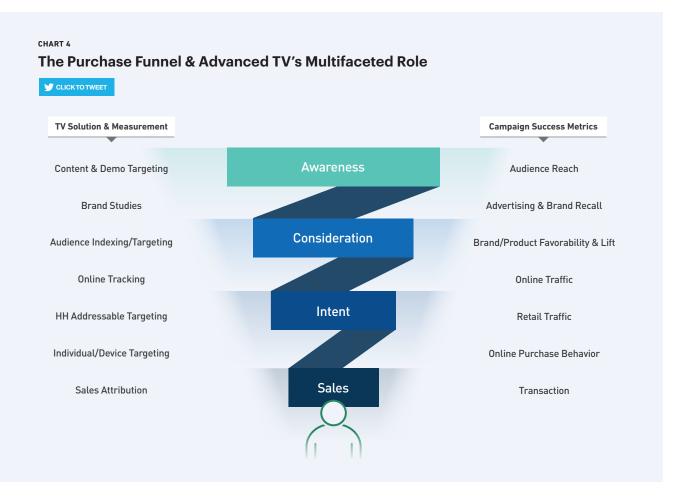
Therefore, it is important for a marketer to feed the top of the funnel, growing awareness and engagement, retargeting these audiences further along the journey. This will deliver richer campaign and brand engagement, resulting in more efficient conversions.

TV helps advertisers drive attitudes and behaviors at all levels of the funnel. Marketers have made use of audience-based buying of linear and digital TV, creating custom audience segments and finding the networks, dayparts and shows where they can reach desired audiences and measure results. Attitudes and behaviors

The main goal of attribution is to allocate credit where it's due, allowing marketers to prioritize their media spend and deliver maximum results, whether it be at the upper part of the funnel or the bottom.

can now be measured by the use of third party survey data, set-top box second-by-second viewing data, retail/shopping data and other data sets that are directly linked to the household level. This is done in a privacy-compliant manner to deterministically understand which household was exposed to that specific ad.

There are multiple TV attribution players who operate at the top, middle and bottom of the funnel (see later section on **Attribution Partners**). The marketer's prioritized KPI typically determines which measurement partner should be selected to conduct the attribution analytics or study. There are many different types of KPIs that third party vendors measure against and the aim is to tie the campaign goals and objectives to those metrics.



For example, if the advertiser wants to measure survey results versus sales, a specific survey-based vendor will be utilized to perform the attribution reporting. As mentioned above, building brand awareness is essential and therefore it is equally as important to attribute impact to activity in the upper stages of the funnel.

A key benefit of full-funnel attribution, which tracks brand awareness metrics and not just sales, is that you see movements in the top and middle of the funnel as they are happening, and ultimately how it correlates to transactions. While it's hard to determine the impact of upper-funnel metrics, there are a range of measurement partners available to help marketers gain measurable insights to optimize future campaigns that include ad recall, brand awareness, and message association.

TV advertising has built many brands over decades through mass reach and it now drives lower funnel metrics as well. Addressability opportunities have enabled more targeted, personalized messaging to push consumers towards the marketer's business outcomes. It can drive word of mouth, search, research online, in-store visits etc. As opposed to other media options, TV drives significant brand awareness and now has strong lower-funnel brand performance relative to many channels.

Case Studies



The following case studies, aggregated from across the industry, showcase TV's ability to drive results through the entire purchase funnel. Each case study states the attribution objective, aligns the campaign with the different stage of the consumer journey and illustrates the positive impact that TV advertising had on campaign KPIs.



MARKETER: AUTOMOTIVE DEALER

FUNNEL STAGE: AWARENESS +

CAMPAIGN: Q1 2018



Regional Automotive Dealer Drove Incremental Reach through Multi-Screen Extension, Increasing **Web Traffic and Conversions**

Objective

This auto dealer had been a consistent, long-term linear TV advertiser and Comcast Spotlight suggested adding Premium Digital TV to their schedule to increase their reach to an elusive audience. The IMPACT Campaign Insights solution was used to measure the lift in reach and therefore awareness, as well as other metrics down funnel.

"Driving results in TV starts with building reach with qualified audiences and then converting them into customers through precision."

Results

By driving incremental reach via a cross-channel television strategy, the dealer saw a significant increase to their website traffic after adding Premium Digital TV and saw significant lift in key KPIs such as direct/organic search and vehicle details pages (VDP) visits.

Justin Evans

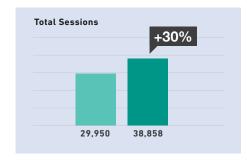
VP, Data Strategy, Comcast Spotlight

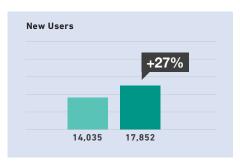
Auto Dealer Campaign Performance Within Campaign Geography

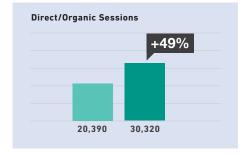
Q1 2017 vs Q1 2018

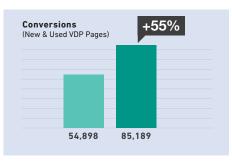
Q1 2017











Key Takeaway:

The addition of Premium Digital TV increased reach to drive incremental qualified traffic down the purchase funnel, resulting in increased search and online purchase consideration.



MARKETER: LUXURY AUTO

FUNNEL STAGE: CONSIDERATION

CAMPAIGN: Q1 2017



Luxury Auto Maker Sees Significant Lift in Web Traffic

Objective

NBCU and iSpot worked together to demonstrate to a luxury auto maker positive results driven by advanced TV targeting through NBCU's Audience Studio.

Results

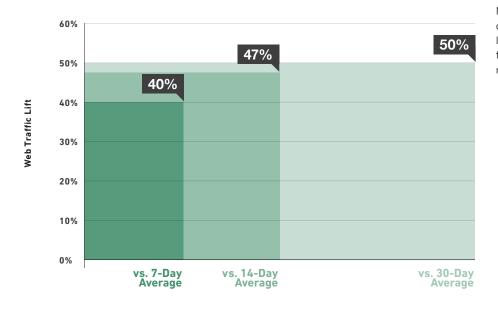
By comparing the performance of spots placed using advanced targeting to spots placed based on age/gender, iSpot's attribution analysis was able to prove that NBCU's linear optimization drove a statistically significant lift in web traffic.

"Simply put, we are creating a new currency for TV measurement based on real business outcomes with this integration."

Brian Norris

SVP, Audience Studio Sales, **NBCU**

Web Traffic Lift vs. Averages



Key Takeaway:

NBCU's advanced targeting drove significant conversion lift compared to the average for the campaign across all national TV publishers.



MARKETER: VIDEO ADVERTISING BUREAU

FUNNEL STAGE: CONSIDERATION

CAMPAIGN: Q3 2018



VAB "Founders" Ad Campaign Enhances TV's Perception and Proves TV's Ability to Drive Website Traffic

Objective

Looking to reinforce and bolster marketers' perceptions regarding TV's ability to drive business growth, the Video Advertising Bureau (VAB) launched an advertising campaign featuring the founders of two digital-native disruptor companies - Wayfair and Gwynnie Bee - describing the impact TV advertising has had on the success of their businesses.

"We experienced firsthand the impact a targeted, cross-screen TV campaign has on a new advertiser."

Results

Pre and post campaign quantitative research conducted by Research Now indicated double digital KPI lifts among brand marketing leaders. Additionally, the campaign drove significant traffic to the VAB, Wayfair and Gwynnie Bee websites.

Danielle Delauro

EVP, Video Advertising Bureau

Post-Campaign Brand Marketer Perceptions

"Linear TV is the most influential medium for driving consumer action"

"TV impacts a brand's business results"

"The campaign influenced their opinion on TV's ability to drive business growth"

Key Takeaway:

Advertisers exposed to the VAB ads were 38% more likely than other marketers to consider TV in their future media plans.



Cross Platform TV Campaign Resulted in Surge of New Visitors to VAB Website

SOLICK TO TWEET

The "founders" campaign, which ran exclusively on national broadcast, national cable and on local cable in virtually every market, resulted in a 39x increase in site traffic to the VAB website.

Key Takeaway:

Capitalizing on TV's cuttingedge targeting tools and utilizing a full suite of premium video platforms, the VAB conversion rate was 2x that of a typical B-to-B TV campaign.*

*Source: DataPlusMath



Campaign Drove Substantial Traffic for Wayfair & Gwynnie Bee

Wayfair **Gwynnie Bee** VAB Campaign **VAB Campaign Wayfair Brand** Gwynnie Bee Campaign **Brand Campaign** 100 100

Key Takeaway:

Without a call-to-action or URL on the creative, the VAB campaign drove significant traffic for both Wayfair and Gwynnie Bee illustrating the ability of TV to drive online search and discovery.

SER Index

Source: EDO

A viewer who saw a VAB ad featuring the Wayfair story was 3% more likely to engage online with Wayfair in the minutes immediately following the ad airing than someone who saw a normal Wayfair ad. For Gwynnie Bee, the viewer was almost twice as likely to visit their site after seeing the VAB ad featuring the Gwynnie Bee founder.







National Retailer uses Smart TV and Mobile Location Data to Understand TV impact on In-Store Foot Traffic

Objective

Partnering with Data+Math, A+E Networks worked with a national retailer to analyze data from Smart TVs and mobile location foot traffic to inform which campaign elements were most likely to drive in-store visits.

Results

Through multi-touch attribution analysis, A+E and Data+Math were able to reveal the positive impact of linear TV on big box retail location visits. Certain networks, programs, days (off-peak) and dayparts (morning and prime) were identified as optimal for driving store visits. The resultant metrics can then be integrated into A+E's platform to inform and optimize future campaigns.

A/B (Exposed/Unexposed) Household Lift



Daily Visitation (National TV)



Daily Visitation (A+E Networks)

Key Takeaways:

Individuals in households exposed to the campaign were 9.9% more likely to visit the retailer's stores.

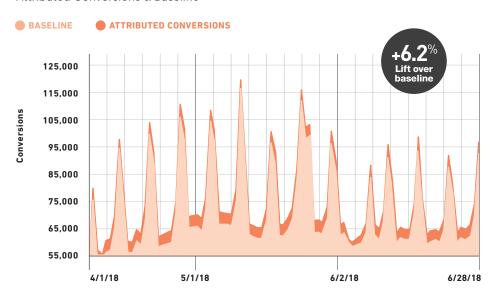
Individuals in households exposed to the campaign across A+E Networks were 14.9% more likely to visit the retailer's stores.





Multi-Touch Attribution TV Lift*

Attributed Conversions & Baseline

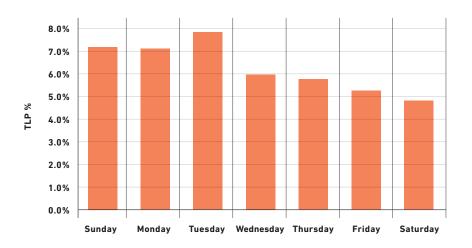


Key Takeaway:

TV exposure on A+E drove incremental store visitation above baseline levels.

Conversion: By Day of Week

TLP* % by Day of the Week, A+E Networks



*TV Lift Performance, a Data+Math proprietary metric, examines the share of total TV attributable conversions to the share of total impressions.

Key Takeaway:

The greatest impact was in driving visitation on several off-peak days during the week.

^{*}TV lift determines which conversions are due to the influence of the TV campaign (attributable conversions) versus those not due to the influence of the TV campaign (baseline conversions)



MARKETER: QSR

FUNNEL STAGE: INTENT

CAMPAIGN: Q1 2017



QSR Brand Drives Foot Traffic and Lowers Their eCPM Through Advanced Targeting

Objective

Leverage mobile device location data to inform TV target audience in order to drive foot traffic. Using test and control groups of those exposed to campaign, attribution analysis demonstrated foot traffic lift.

Results

The audience group that was exposed to the TV ad based on qualifying mobile location data drove positive results.

"Television drives positive business outcomes and through attribution advancements, we are now able to prove that it does and show results."

Keith Kazerman

Group SVP, Research, Data & Engage, Discovery

Foot Traffic Results



Advanced Target eCPM



Key Takeaway:

Advanced targeting increased audience volume, overall foot traffic and lowered the eCPM.



MARKETER: LUXURY RETAIL

FUNNEL STAGE: INTENT

CAMPAIGN: Q2 2018



Luxury Retail Brand Drives Visitation and Connects CTV Viewership Insights with Offline Shoppers

Objective

A luxury retail brand wanted to optimize its connected TV investment and effectively measure ROI, while also gaining insight into and understanding the viewing patterns of those who visit its stores. The brand aimed to reach Fashion and Women's Lifestyle Enthusiasts with video ads on CTV and native ads on Samsung Smart TVs and used Factual location data to measure the offline impact of the campaign through store visitation attribution.

Results

CTV ads significantly improved store visitation versus any other type of exposure on Samsung Ads. Among the native placement, opt-in / direct-to-video ads performed better than auto play video ads in driving store visitation, confirming user-controlled play as synonymous to interest and/or intent.

The study also revealed that the brand's shoppers are more likely to be heavy streamers or OTT app users, compared to the average population, and those shoppers are more likely to be on connected TV.

"When using high-quality location data, advanced TV offers the unique added benefit of real time. location-driven attribution. actionable insights and quantifiable ROI. This level of attribution, unthinkable just a few years ago, should now be the new standard for TV advertising."

Kevin Reilly Head of Measurement, Factual

Connected TV Video Ad Conversion

Versus any other type of ad exposure

Opt-in / direct-to-video ads outperformed Auto Play video ads in driving store visitation

Key Takeaway:

CTV ads drove high in-store traffic and among the native placements, user-controlled play was synonymous with interest and/or intent.

Brand Shoppers Are More Likely To:



watch music, sports, comedy and lifestyle TV



watch on Smart TVs during late night/ overnight



spread normatively across the US



MARKETER: CPG

FUNNEL STAGE: SALES

CAMPAIGN: Q4 2017 - Q1 2018



CPG Marketer Increases Sales Among Low Loyalty Buyers By Improving Targeting Efficiency

Objective

CPG client was looking to convert non-brand buyers and increase share of new product launch by improving targeting precision, leverage transactional data and prove effectiveness with sales lift ROI analysis.

Results

By identifying and targeting different advanced target groups, CPG client was able to drive incremental sales and gain significant efficiencies.

Low Loyalty Buyers Incremental Sales



Key Takeaway:

Volume of qualifying audiences increased, incremental sales from new customer groups was boosted and the eCPM was reduced.







MARKETER: NUTRITION

FUNNEL STAGE: SALES

CAMPAIGN: Q3 2018



Nutrition Marketer Gets Insights Into Optimal Media Investment Through Conversion Analysis

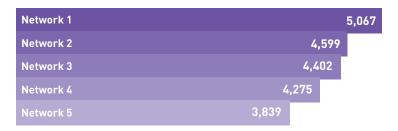
Objective

By attributing conversions to digital video and linear TV, VideoAmp provided the client with insights into their linear TV investment and the key factors to maximize results. The client sought to identify the overlap of their linear and digital audience in relation to conversion as well as which media placements and audience viewership trends best drove conversion.

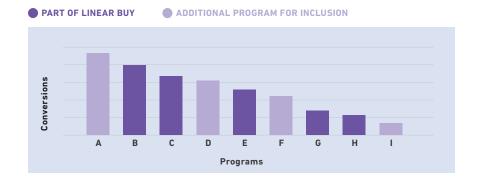
Results

VideoAmp found that the client's digital and linear media buys reached different audiences so the linear buy was complementary to digital. Identification of networks, programs and audience viewership trends that drove the highest conversion rates enabled the marketer to reassign their media investment.

Number of Conversions by Network



Conversion Distribution Against Program/Audiences



Key Takeaways:

Top performing networks that led to more conversions per users included networks the client had opted out of over the course of their linear buy.

The client used this insight to reinvest their scatter buys towards these high performing networks they had turned away from.

Overall, VideoAmp's analysis helped the client tailor a broad reach vs. high conversion strategy among networks.





Luxury Auto Brand Maximizes Investment and Drives Revenue with CTV Targeting and Measurement

Objective

A luxury auto brand wanted to optimize its linear TV investment, using connected TV to effectively reach targets not exposed to linear TV ads. They wanted to measure the efficiency of connected TV in delivering hyper-targeted audiences while also delivering incremental reach, driving awareness, and ultimately, converting to sales. They sought to measure the results in part by connecting offline footfall to digital video advertising by using Samsung ACR data and Factual location data to measure offline campaign impact.

"With the increasing penetration of advanced TV platforms, sophisticated measurement capabilities are now a vital piece of the TV advertising budget."

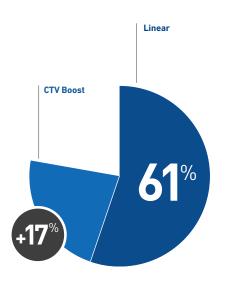
Results

Using insights from Samsung's ACR data to identify households exposed to TV advertising, including those exposed to competitors, the brand's campaign was able to extend its reach by utilizing a custom targeted segment.

By connecting CTV ad exposure to offline footfall data and determining which of the exposed viewers then visited a dealership, Factual data was able to show an above average lead conversion rate from website-to-dealer visitation and determine which audience targeting tactics led to the most conversions (custom audience targeting performed best).

Kevin Reilly Head of Measurement,

Reach Extension



ROI



Key Takeaway:

CTV drove incremental reach over and above the linear schedule, and increased dealership visitors to drive sales opportunities.

¹ Based on estimates: \$30,000 average used car deal size for category and brand; 25% of visits convert to a sale. Potential revenue gains - ad spend investment.



MARKETER: TELCO PROVIDER

FUNNEL STAGE: FULL FUNNEL

CAMPAIGN: Q3 2018



Major Telco Optimizes Cross-Screen Media for Conversion

Objective

Telco marketer wanted to understand the impact of viewing fragmentation in order to increase the performance and efficiency of their media buys. VideoAmp analyzed linear and cross-screen ad exposures, as well as impact on conversions across channels.

Results

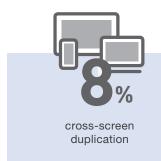
By fingerprinting linear creative assets and capturing granular ad server data, Videoamp provided the client with insights on reach, site activity ad conversion rates, detailing different audience group conversion rates. This helped to inform future media investment strategies.

"It has become clear, based on brand marketer demands, that unifying TV and digital workflows alone isn't enough. Marketing investments must drive business outcomes that can be measured."

Jay Prasad

Chief Strategy Officer, VideoAmp

Impact of Linear & Cross-Screen Exposures





of linear reach was incremental to digital

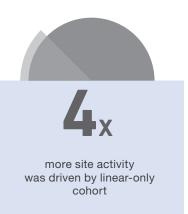
Key Takeaways:

Linear TV provided a significant audience reach opportunity.

Different cohorts of viewers displayed different behavior, with linear driving high website activity and OTT driving high conversion rates.



higher conversion rate for cross-screen users than other cohorts



Attribution Best Practices

There are many important best practices a marketer should focus on before and during a campaign.

Privacy & Legal Compliance

It is of the utmost importance to conduct comprehensive reviews of data processing activities and data flows to ensure legal compliance and establish appropriate privacy safeguards prior to launching a campaign.

Conducting attribution services for any type of KPIs or metrics that the marketer is looking to measure involves the use of advertiser data that, depending on the type of data and data flows, will be subject to various legal privacy requirements and restrictions. For example, marketer CRM, sales or conversion data typically contains Personally Identifiable Information ("Pii"), or information that, by itself, can identify a specific individual, such as name or email address. This type of information may be subject to heightened privacy controls, such as opt-in consent or the engagement of double-blind matching processes through a trusted service provider. If truly "sensitive" data is involved, such as protected health information, de-identification experts may be required to comply with privacy laws such as HIPAA.

On the operator side. STB viewer data can also be included in attribution studies and therefore certain household aggregation requirements are necessary to ensure that a partner cannot re-identify a particular household or reverse engineer any of the Pii it separately maintains back to a particular household. Establishing standard privacy compliant data flows, including tracking any required or offered consumer consents, and preparing for upcoming compliance with consumer access and deletion requests of personal information, is essential. This ensures that attribution studies conducted by a measurement partner does not pose any legal or privacy threat.

Timelines & Campaign Goals

Another relevant best practice prior to a campaign

launching is setting expectations on deadlines and budgets. Establishing clear timing and campaign goal expectations is extremely important in ensuring that all parties meet their deadlines and budget goals since there are many dependencies that a marketer cannot control (i.e. data matching, legal reviews, measurement analytics, etc.). These factors all need to be addressed before executing against a specific campaign.

Robust conversations upfront with stakeholders are therefore very important to ensure everyone is on the same page. When establishing a campaign with crossplatform attribution, there are 5 key best practices that a marketer should consider:

- 1. Use granular levels of data to optimize your campaign mid-flight
- 2. Establish an appropriate timeline to measure against the campaign objectives
- 3. Use a statistically-significant model to infer causality for your media plan
- **4.** Incorporate a control group for your measurement
- 5. Make sure the data is representative of the target population being measured

Depending on the attribution partner, target control group and whether or not an overarching data agreement is in place with both the marketer and operator, timing can take anywhere from a few weeks to a few months to gain all necessary approvals. If the requisite agreements are already established, the campaign set-up can take only days while post campaign attribution typically takes 2-4 weeks, depending on the measurement partner's SLAs. This is why it is extremely important to set expectations upfront across the board in order to ensure deadlines can be met by each of the stakeholders.

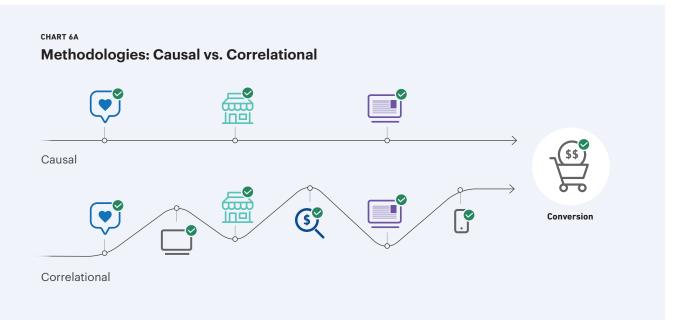


Methodologies

There are many different types of attribution methodologies; causal versus correlational, multitouch and cross-channel, and data linkage to many distinct datasets.

Every attribution partner has their own set of proprietary methodologies when establishing relationships between advertising investments and a specific outcome (i.e. brand lift, sales etc.). Attribution vendors correlate daily sales or other key activities to a presence of marketing tactics while controlling for all other key impacting factors such as economy, price and competition.

Once it is established what is being measured and when (post campaign or in real-time as the ad airs on TV), how you will measure attribution from the TV campaign is next. There are 2 different overarching methods on how to measure: causal and correlational.



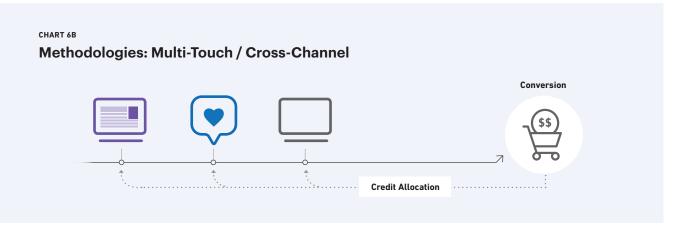
If we knew exactly which points influenced a user to purchase a product or view an ad and how that impacted their decision for each sale, then marketers would have more media investment insights. It's important to understand the touchpoints between channels and how various actions impact each purchase decision. For example, was the rise in conversions because of a website feature upgrade, or was it the TV advertisement exposure or combination?

Causal measurement involves matching individuals exposed to ads with their actions. By determining actual cause and effect relationships, causality allows marketers to understand what is driving conversions and sales. Generating insights that can inform marketing strategies requires an understanding of causality, considering all marketing touch-points across every channel.

Correlation measurement scans a time period and focuses on the campaign impact during that same period, correlating impactful information to sales or other KPIs. If one understands what factors influenced a user, and how much those impacted their decisions for each sale activity, then this informs an advertiser's marketing strategy. It's important to determine the intersections between media investment channels and understand how different actions impact a consumer's path to purchase.

Confusing correlation for causation may result in advertising dollars being misplaced. Including all relevant factors into attribution models is essential to make certain that credit is provided to the channels where the consumer impact occurs.

Another significant attribution methodology is the concept of using multi-touch and crosschannel attribution.



To really understand whether a campaign is achieving its goals and delivering true ROI, you have to focus on multi-touch attribution, providing a weighted model to allocate credit to a variety of channels that a consumer touches. As marketers run cross-platform campaigns, buying on digital/OTT, addressable TV and linear TV, it becomes more difficult to tie a metric to a specific channel. Cross-screen attribution methodologies are driven by the use of device ID matching across addressable, linear and connected TV homes to develop cross-device measurement tracking. With multi-touch attribution, you use historical data and ingest first-party CRM data layered with secondand third-party data. The optimization of cross-screen attribution allows advertisers to fine-tune

creatives by channel and device, as well as identify attribution insights that drive media optimization for e-commerce and drive-to-retail campaigns.

Another key methodology focus is the accuracy of data linkage, where distinct types of datasets are mapped at the individual level. Using trusted service providers that employ double-blind matching processes, individual or household TV ad exposure data must be mapped to other offline and online media, marketing and outcomes data.

For example, if a marketer was running a campaign across linear TV, addressable TV and digital, they may receive IP address ad logs from a pixel, impressions from an operator for addressable TV, a target measurable control group from a third party data provider and either national ad logs from attribution partners or smart TV data.

CHART 6C Methodologies: Data Linkage / Identification Deterministic Probabilistic

Data tieback methodologies that involve tapping into blind match-back technologies and proprietary algorithms can extract multiple variables from different data sources for matching and deduplicating. There are providers that act as a trusted intermediary to perform blind match-backs with Pii (e.g. a process that shields each participating party from tying another party's data to an identifiable individual) and, in theory, these approaches should include all marketing KPIs and sales across all channels.

Despite claims of probabilistic and deterministic methods for matching being used, the quality of the match depends on the data available. When such data isn't available, a method must be found based on the best fit with available data. It's important that when running attribution analysis, the methodology takes into account various marketer-defined consumer segments to understand the impact and value of the conversion across segments and the impact to lift and frequency. For example, if a marketer has segments that include least engaged/most engaged buyers/spenders, this allows the attribution partner to identify and analyze the brand lift within a 'least engaged' segment and across 'least engaged and buyer' segments through the use of data tie-back and matching algorithms and methodologies.

Attribution Partners by Category

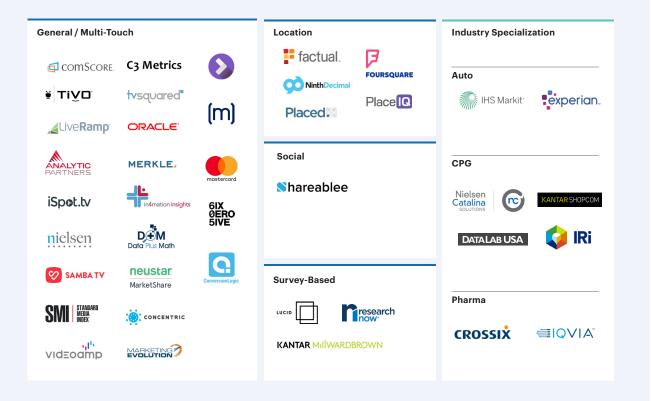
The marketer's measurement objectives will determine the type of data and attribution analytics required. In today's marketplace, most marketers want to understand how effective their ad was on TV or digital, and tie household and/or individual level data to website and/ or purchase data. Attribution has been historically more challenged on the TV side (versus digital) since it involves matching to many different data sets like ad exposure data, CRM files and sales or conversion data. Most attribution partners gather and capture this data directly to enable more accurate results. The positive news is that TV attribution is now becoming widely adopted and it

enables marketers to unlock the impact and effectiveness of TV, while identifying true real-time outcomes from their budgets.

There are many different types of attribution partners in the industry today across a variety of specializations like location data and surveys as well as industry sectors such as automotive, consumer packaged goods (CPG) and pharmaceutical. For example, one attribution partner may provide sales lift metrics for new automobiles, while another partner will show advertising's impact on foot traffic for retail stores or restaurants. The marketer's vertical, available data and the required measurement will determine which attribution partner to select.

CHART 7 TV Attribution Partners by Category

Note: These are examples of attribution companies and not meant to be an exhaustive list.



The Future of TV Attribution

WHILE THE METRICS AND METHODOLOGIES BEHIND ATTRIBUTION HAVE GREATLY IMPROVED OVER THE

last few years with the ability to track consumer behaviors across devices, limitations and room for improvement still exist within the space. For instance, many attribution models continue to focus on short-term metrics which often comes at the expense of long-term brand viability. Therefore, the development and implementation of integrated advanced analytics for "full marketing funnel" advertising measurement will enable greater media optimization for both short-term sales and long-term brand building.

This integrated approach to full funnel attribution quantifies both the long-term impact of advertising campaigns on upper funnel brand metrics such as awareness or intent and the short-term impact on mid and lower funnel marketing outcomes like traffic or product sales. Combining brand and performance measurement together will help marketers and their agencies maximize their media ROI and increase business outcomes for both short- and long-term success.

As such, cross-channel attribution is an ideal approach for marketers looking to measure the success of their entire campaign since it assigns partial credit for each relevant exposure through all media platforms and across the purchasing funnel: from awareness to sales, depending on the marketers' goals. While still in its relative infancy, this cross-media, cross-funnel approach provides true attribution as it enables a marketer to understand how all of their media interacts with and impacts the target audience.

For marketers looking to specifically understand the return on their TV investment, multi-touch attribution is an ideal solution as this dynamic model connects advertising exposures across screens to digital outcomes in order to show the real impact of TV advertising.

Utilizing attribution solutions to understand the relationship between brand equity marketing and performance marketing benefits not only marketers but media companies as well. An integrated approach can reveal the halo effect of TV beyond just top-of-the-funnel metrics as it's a medium that's been proven to drive both long-term brand lift as well as short-term sales.

While TV is a primary driver of reach and awareness, improved measurement of media's effect across the full funnel will create opportunities for TV companies to offer "outcome-based" attribution solutions — against metrics such as consideration, intent, website visits, instore traffic and sales — for brands looking to ensure their media investments are producing quantifiable business results.

Attribution for television has arrived, and now marketers have the proof that they have instinctively understood for decades: TV drives results.





About The Video Advertising Bureau

The Video Advertising Bureau provides marketers with industry-defining data, actionable thought leadership and planning tools to navigate and optimize the ever-expanding world of premium multiscreen video content. The VAB champions the undeniable power of premium video advertising on behalf of the ad-supported video industry as it represents virtually all national broadcast and ad-supported cable networks, regional cable networks, MVPDs and major cinema advertising companies.

For more information on the Video Advertising Bureau please visit www.thevab.com, follow us on Twitter @videoadbureau and connect with us on Linkedin.

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About The FreeWheel Council for Premium Video (FWC)

The FreeWheel Council for Premium Video (FWC) serves the interest of the premium video industry through leadership positions, research and advocacy. Founded initially in the U.S. in 2015, and expanded into Europe in 2017, the FWC is an advocacy group comprised of 46 premium video providers globally, including programmers, operators, and digital pure-plays. The FWC operates as an educational and organizing resource to assist marketers in reaching desired audiences in premium video environments, conducting research documenting the benefits of premium video, and championing the interests of member publishers and the market.

For more information on the FreeWheel Council for Premium Video please visit www.FreeWheel.tv/FWCouncil and follow us on Twitter @FWCouncil.

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