CROSS PLATFORM SALES IMPACT: CRACKING THE CODE ON SINGLE SOURCE

Caryn Klein, Time Inc.
Leslie Wood, Nielsen Catalina Solutions

INTRODUCTION

Measuring the ***sales impact or sales effect*** of advertising across platforms remains a significant challenge, and even more so today, with increasing media fragmentation.. Most work to date through Market Mix Modeling (MMM) has been to demonstrate an individual medium's ROI, and any cross platform insights are gleaned from surveys, with "intent to purchase" acting as a surrogate for sales. (McConochie and Uyenco 2002; Gould 2003; Naik and Raman 2003; Numberger and Schwaiger 2003; Callius, Lithner et al. 2005; den Boon, Bruin et al. 2005; Schultz 2006; Rush 2008; Wood 2010). Nielsen Catalina Solutions (NCS) and Time Inc. have partnered to quantify the sales effect of an advertiser's total investment across platforms.

While MMM and Sales Effect methods operate in the same general space, their approaches are from different perspectives. MMM provides a broad and consistent measure of all marketing elements (i.e., price, promotion, etc.) and allows for comparisons across marketing variables. Sales Effect provides a much deeper measurement into the more granular differences in advertising such as Magazine or TV genre or specific creative executions. It can also measure the difference between media when those media are delivered at the same time. In other words, MMM provides the big picture, while sales effect, which is conducted using "single source" data, provides the details.

The recent advances in the development of single source data sets have enabled unprecedented insights into the interaction and impact of multiple media platforms in advertising.

The collaboration between Time Inc. and Nielsen Catalina Solutions (NCS) has created an extensive dataset which captures not only households' exposure to cross media campaigns but their purchasing behavior prior to, during, and after exposure. In addition, NCS has an extensive normative dataset of ~1700 ROI studies. Roughly ~1500 are for digital, ~100 for TV, ~70 are for print and there are several for radio and for cross-media. These studies are a rich source for understanding what the drivers are for advertising response.

Over the past three years great strides have been made by Time Inc. to demonstrate this more granular sales impact of a marketers' advertising investment. Time Inc.'s Pinpoint product, launched in October 2011, allows marketers to measure and evaluate the return on their print and digital investments, including metrics on retail sales, brand loyalty and purchase frequency.

For the print studies conducted in the past year, positive impact on in-store sales ranged anywhere from $7MM to $74MM for each advertiser, with an ROI ranging from $4 to $15 for every dollar spent on print advertising.

Other publishers have also been able to demonstrate positive ROI for magazines. In a paper presented at the San Francisco PDRF in October 2011, Ware and Bickel quantified the impact of magazine advertising on sales, and acknowledged the need to expand this to other platforms. (Ware and Bickel 2011; Ware and Bickel 2012)

OBJECTIVE

Two food brands paired their advertising dollars together to create a co-branded ad campaign. Two creative versions of the joint effort were served to coincide with the fall 2012 and winter 2013 season. These brands are from two different, but complementary categories and the goal of the campaign was to impact trial and sales of both brands. Creative was specifically developed based on the clients' objective, with strong calls to action in both print and digital.

Time Inc. magazines and digital assets were deployed, and a complementary TV campaign ran outside of Time Inc. assets during the campaign flight. While Time Inc., measured the magazine and digital components of the campaign, it was important to include TV so that we could understand the campaign's full cross platform impact. Specifically, to understand:

1. Whether we could accurately measure cross media sales effects?
2. How the ad campaign drove actual brand sales?
3. Whether both brands benefitted equally?
4. Synergy across media platforms?

To answer these questions, a new methodology was required that linked TV exposure to print and digital. This paper highlights the process of merging discrete databases to create single source datasets, best practices in leveraging them, and actual results and insights from our work.

EXECUTIVE SUMMARY – KEY FINDINGS

The key findings are:

- We can now measure multiple media, in a single source; it is complicated, but doable
- Synergy for media: 1+1 can be larger than 2. In this study, there were incremental sales due to synergy for both brands, although the synergy for the smaller brand was considerably larger than the synergy for the larger brand.
- Synergy for brands: Based on this particular study, a case can be made for combining two brands into a single campaign. Each brand was delivered substantial, significant incremental sales for the combined ad budget.

This study shows large effects of synergy for both brands measured. The smaller brand's (Brand B) synergy delivered an additional 45% of the dollars that would have been delivered by either media alone. The larger brand's (Brand A) synergy delivered an additional 23%. These are substantial, measured effects of the value of delivering a message through two channels vs. a single method. It may be that this synergy is particularly strong since the messages were very similar in both media and the two media deliver the message through two different channels – sight-sound-motion for one and reading in the other. Further studies will be required to quantify the drivers of these effects.

The third finding from this study was that using a single advertising campaign to sell two very different brands works! Both brands built substantial sales. Both brands had significant benefits from the campaign. It may be that this form of synergy – between brands depends on brands that can support each other so easily.

METHODOLOGY

The NCS single source dataset is comprised of several disparate datasets that are linked by an anonymous household ID. These ID's are the backbone of the data and represents all households in the United States. This anonymous household ID helps NCS to understand those who were exposed to advertising, and as a result, purchased the product. NCS uses a third party to link data sources like Time Inc.'s subscriber file to the shopper data, so no personally identifiable information (PII) is within the NCS dataset. NCS can only identify households with their unique household ID.

The matching process begins with the de-identification and anonymizing of the combined data file. The first part of the process starts with print where Time Inc.'s active subscriber file is matched through Experian to the NCS Frequent shopper database (FSD).

For digital, a cookie match is done via third party cookie pools (e.g., RapLeaf/LiveRamp). The cookies are constantly being updated since consumers delete their stored cookies on their computer. The third party cookie pools are regularly matched and updated to the NCS dataset. For TV, the Nielsen People Meter panel is matched through a third party (i.e., Experian) to the NCS dataset.

Connecting Data
Prior to beginning a study, the panel of HHs to use in the study is defined and "exposure" files are created. Exposure files are defined as HHs who have been exposed to the advertising through the various platforms. In addition, those households also must have FSD purchase data. The data for this study is based on HHs that had "good" exposure data and "good" purchase data for print, digital and television.

Tracking Exposure
Exposure for magazines is measured in three ways:

1. Subscriber: Subscribers are measured by collecting the anonymized HH IDs for those who were active subscribers and active for each magazine and specific issue an ad was placed in. These subscribers are included in the exposed group of HHs.
2. Newsstand: HHs that purchase the issue with the campaign creative at newsstand and have been recorded in the FSD data. UPC codes are provided in order to ensure the specific issues featuring the ad are captured.
3. Secondary: Currently, secondary household reach is estimated based on MRI audience data. After identifying the proportion of secondary audience, a factor is applied to household the data, maintaining consistency to the measurement of sales impact based on household purchases. Sales impact from secondary households is not observed in the data, and is inferred using the impact from subscribers and newsstand buyers. When reported to clients, we include the impact from secondary in the payback analysis. However, for the purposes of this paper, we are only showing what is observed and measurable from the NCS data.

Digital exposures are measured via a cookie match as mentioned previously, by including a 1x1-pixel tag to the ad. This tag fires a message that looks for a cookie on the reader's computer (cookies are placed on a computer via that reader having visited any one of thousands of sites supported by NCS' third-party cookie match partner). The 1x1-pixel tag then sends the user's cookie information back to NCS' third-party cookie match partner who shares with NCS that that tagged creative was delivered to that specific anonymous HH ID.

Nielsen collects exposure to television electronically with the Nielsen People Meter and in mid-sized markets with household meters in the Nielsen Metered Market data.

Both TV and Digital HHs are monitored for being "intab" on a daily basis. A household can be intab even when there is no viewing – being intab requires that the HH be able to view TV if they chose. To be included in this study's measurement panels, a HH had to be intab 75% of the campaign period time. Being intab for digital requires that the HH's cookie was noted as being valid in the user's computer during the campaign period.

Tracking Purchase

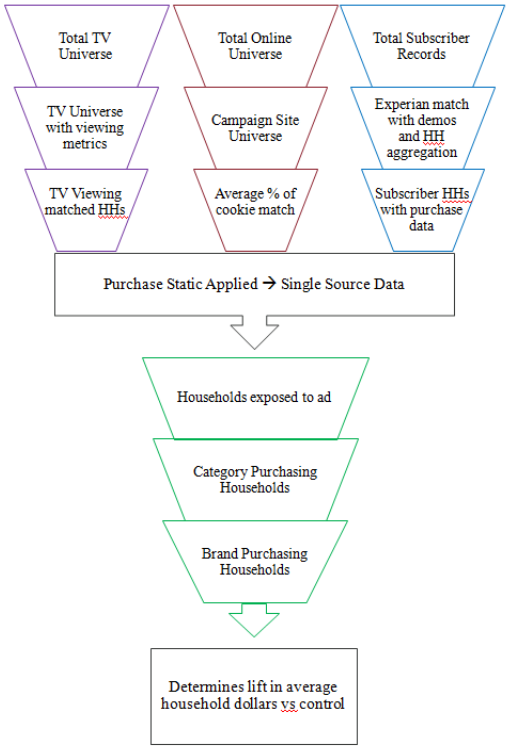
NCS has two sources of purchase data: Nielsen Homescan data (HS) and Catalina Frequent Shopper data (FSD). Homescan collects purchases via a panel of roughly 100,000 households that scan the UPC codes of groceries when they are brought into the home. The HH also records which retailer the purchase was made from. Homescan is a nationally representative, currency panel for CPG purchases. Catalina, also one of NCS's parents, collects purchases made in their retailers by customers with frequent shopper or loyalty cards (FSD). NCS's FSD data include roughly 60 million households. There is a 55,000+ household overlap between the HS and FSD datasets. This overlap is used to understand the biases of each dataset as well as to estimate the all-outlet purchases made by the FSD HHs.

Purchase data is collected by UPC code allowing the definition of each brand and category to be defined by the advertiser's specific needs. In this study, there are two brands each from different product categories.

In the purchase datasets, HHs are determined to be in the static when they have "good" purchasing data. The static applied for this study was $50 of purchases three out of four months during the campaign period as well as the 52-weeks prior to the campaign period (pre-period) and six weeks after the campaign period (post-period).

Connecting data, tracking exposure, and purchase is a complex multi-step process that can be summarized in Exhibit 1:

Exhibit 1



Measuring Sales Effects

Sales Effect can be measured using either of two techniques:

1. ANCOVA Test vs. Control
2. Media Impact

Both of these isolate and compare the purchase behavior of two distinct groups: exposed households vs. matching non-exposed households. The more traditional approach, an ANCOVA Test vs. Control method matches the two groups according to demographic, geographic and offline purchase variables during a fifty-two week pre period, and any differences

are controlled by the use of covariates. Therefore, with the groups matched this way, during the analysis period the only difference between the two groups is that the test households were exposed to the campaign ad. The value of the ANCOVA Test vs. Control design is that it is a well-accepted and long-used analysis tool for the CPG industry.

The alternate methodology, Media Impact compares the two groups over the same variables, but examines variable length windows between exposure and purchase. It focuses on the exposures that occurred in varying windows from 1 day up to 28 or more days prior to purchase. This method allows NCS to measure campaigns that are implemented for longer periods of time or where the reach of the campaign is higher than 75-80% of HHs. These two methods have been tested side-by-side by NCS and produce similar results and ultimately impact similar business decisions.

One of the main characteristics of these analyses is the focus on most accurately answering one question (rather than answering multiple questions at once). These methods provide two key insights for marketing initiatives:

- Illustrating the sales difference between exposed and non-exposed households as well as determine the underlying components driving this sales difference
- Quantifying short-term ROI for advertising on offline sales

For the Print part of the study, the ANCOVA Test vs. Control methodology is ideal because the exact day of exposure is not known. Media Impact requires alignment of exposure and purchase. On the other hand, the Media Impact methodology is ideal for TV since the reach of this campaign was over 98%, and the ANCOVA method cannot be used when reach is over 75-80%. The results of each campaign were measured with the appropriate methodology. The complication was reading the cross-media value.

In an ideal world, we would have started with all of the exposures and then read the parts. Unfortunately, this study started with measuring Print+Digital, with TV added at a later time. TV was added by reading the results in Media Impact and then combining the match files from both studies – for TV we used the 28 day window match. In calculating the combined synergy, our estimates required an estimate of how TV performed against non-Print+Digital exposed HHs. We added this with an additional Media Impact run.

So, while it would have been better to develop a mix-methodology that read the entire results and then decomposed the contribution of each piece, we were only able to estimate the full impact of the combined exposures. In future studies, NCS will explore the development of this mix-methodology.

There are three main components that contribute to NCS' Sales Effect measurement design:

1. Matching

Matching, also known as blocking in design of experiments statistics, is a powerful technique that allows NCS to create very similar test and control groups. Using test and control groups enables a naturally-observed clean view of the test impact free from non test related phenomena and minimizes the need to make adjustments via models.

Specifically we used a hybridized paired/pooled matching method. This allows us to create similar pairs of households (test vs. control) and at the same time minimize overall test vs. control panel differences.

Matching Variables

Hundreds of measures exist for each household in the panel. From this total a match is created using those variables from the three subsets below that are most associated with the measured brand's volume over the analysis period.

- Purchase Based Behavior (brand purchase metrics-penetration/volume/occasions, competitors, category, trip metrics, customer/account-level, retailer)
- Demo-based (age, household size, income, race, presence of children)
- Geographic (region, DMA, state)
- Matching on retailer and within account balances the effects of the marketing mix vehicles (media and in-store promotion).

2. Stepwise Regression Analysis of Matching Variable

This allows custom variable matching importance on a per project basis. Typically pre-period Brand, Competitor and Category purchase behavior are the most important followed by retailers for an ANCOVA Model; while retailer, race, deal and coupon sensitivity are the most important for Media Impact.

3. Covariate Adjustments

While matching does a great job of controlling for non-test related effects, since we are conducting an in market experiment, uncontrollable events can still occur. Covariates for any remaining non-test related differences controls for these remaining effects, giving a clean and focused read of the test impact.

The Sales Effect matching and modeling methodology is focused on accurately addressing the single question of media effectiveness and is founded on years of test vs. control analysis experience. While the complexities of our dynamic CPG marketplace pose challenges for analysis, this product is the most accurate measurement tool available for quantifying the value of a discrete media campaign, such as the value of magazine advertising.

THE CAMPAIGN

The print campaign included various Time Inc. publications and companion websites, including Time Axcess, Time Inc.'s internal ad network. 1Page 4-Color ads featuring a recipe ran in the magazine and a custom microsite served as the hub for the campaign. Digital promoted the campaign through Custom 300 x 600 units, co-branded sweeps units, and edit sponsorships.

The television campaign was also delivered in two flights with the first flight starting in late October 2012 and the second flight ending in late April 2013. The television campaign included :15's and :30's and aired across a broad set of television networks and dayparts.

LIMITATIONS

The TV panel is currently a small fraction of the size of the Print+Digital panel with approximately 10,000 HHs (less than 1 percent of the over 1 million HHs in the Print+Digital panel.) This meant that the analysis of the cross media results had to be conducted on the smaller panel. This panel is comprised of an extremely high quality sample as it is the foundation for Nielsen's TV rating service.

This study was conducted in a step-wise fashion starting with a Print+Digital study, followed by a TV study, a Print+Digital+TV study and a study of TV among non exposed Print+Digital. This limited the ability to accurately reflect the true synergy between the media. While the estimates provided are sound, a more holistic, single mix-methodology would have been more accurate and been easier to tease out the effects of each media.

Sequencing is the measurement of the value of a consumer being exposed to one media prior to the other – in other words, what sequence should the exposures be delivered in (e.g., TV first, then digital or print). The exact date when a HH was exposed to magazines could not be tracked; therefore sequencing could not be called out. The exposure via digital was small compared to the exposure via magazine, making the digital too small to examine for sequencing as well.

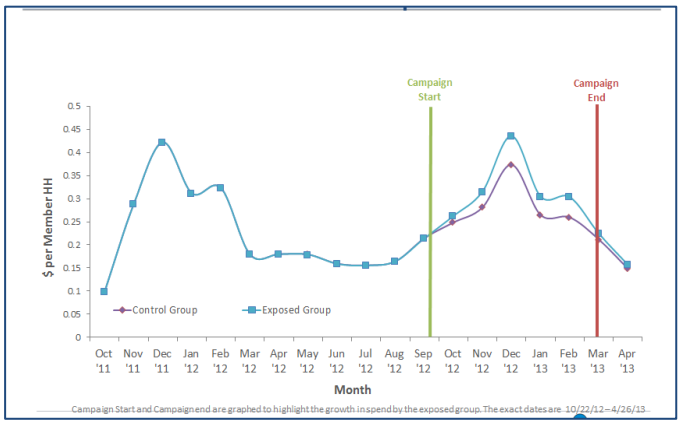
DETAILED FINDINGS

This is a study of two food brands, "Brand A" and "Brand B", "Brand A" is a large brand that dominates its category with a +30% share. "Brand B" is in a different, complementary category with a market penetration of about one-third of Brand A.

The ANCOVA methodology matches exposed HHs to non-exposed HHs for the 52-week period prior to the campaign period. Exhibits 2 through 4 share the fit of these data as well as the divergence that happens once the campaign begins for the print+digital campaign.

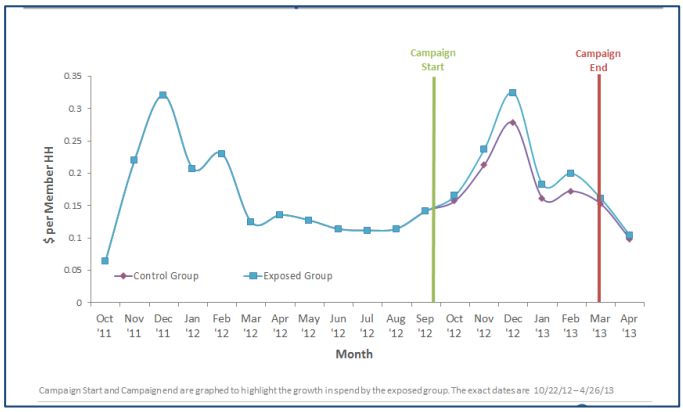
Households exposed to the campaign spent more on Brand A +Brand B than those unexposed.

Exhibit 2



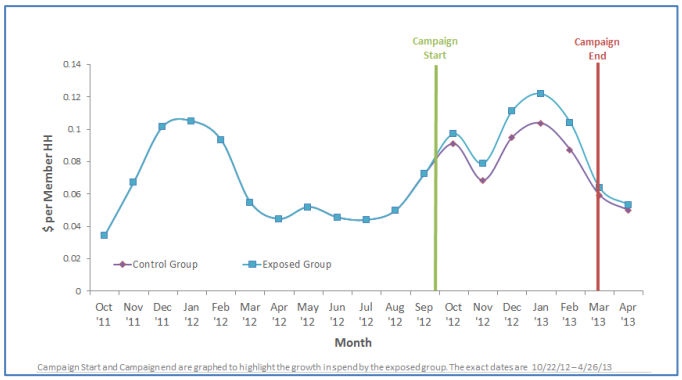
Households exposed to the campaign spent more on Brand A than those unexposed.

Exhibit 3



Households exposed to the campaign spent more on Brand B than those unexposed.

Exhibit 4



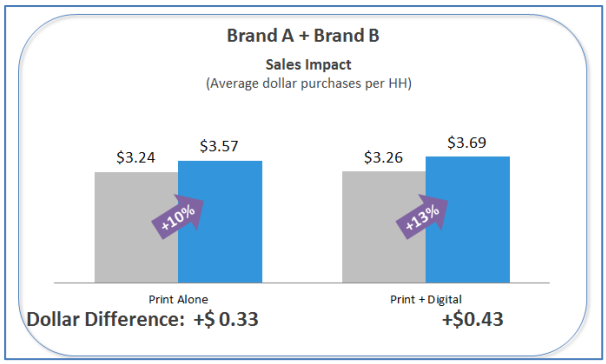
It is clear that the fit between exposed and non-exposed HHs was extremely good. Both the Exposed and Unexposed groups behave identically before the ad campaign started, with variation between the two occurring soon after the start of the campaign.

Sales Effects – Incremental Dollars

For the combined results of Brand A and Brand B, the Print campaign increased sales by 10% from $3.24 to $3.57 which is a difference of 33 cents. (This analysis was conducted as a complete ANCOVA model of just print exposure.)

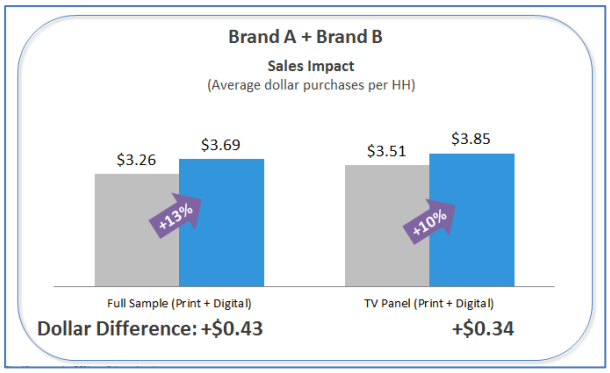
A second model which measured the effect of both the Print+Digital exposures had the same increases of 13%, with the sales going from $3.26 to $3.69 or an increase of 43 cents.

Exhibit 5



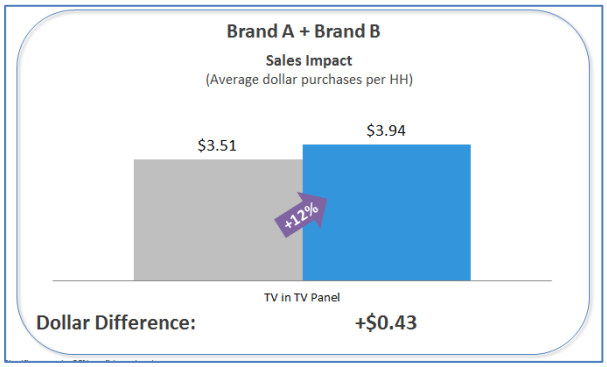
The TV panel included roughly one percent of the Print+Digital HHs, and therefore had different purchasing levels than the much larger panel. Exhibit 6 below shows the results from the same analysis, but within a very small subset of the HHs. The differences between the two panels should be used to help compare the results from the two different media.

Exhibit 6



The ANCOVA model conducted within this smaller panel to measure the sales effect of the television campaign on Brand A plus Brand B, (Exhibit 7) produced the same levels of sales response to the Print+Digital campaign. There was a 12 percent increase in sales from $3.51 to $3.94 dollars per HH which represents 43 cents more.

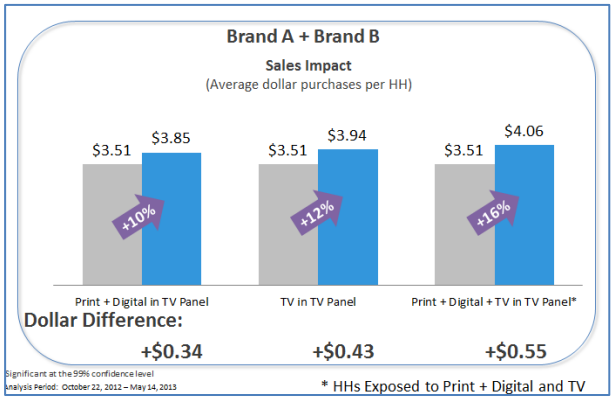
Exhibit 7



When we examine the combined effect on HHs exposed to both TV and Print+Digital ads on sales of Brand A plus Brand B, the increase in sales is dramatic with the effect going from 10% for Print+Digital to 15% for the combination. More than +99% of the HHs reached with the Print+Digital campaign were reached by the TV campaign (the TV campaign has a 98% reach over all HHs.) This increased the incremental dollars of Print+Digital from $0.34 to $0.55. Exhibits 14-22 show the payback analysis for these campaigns.

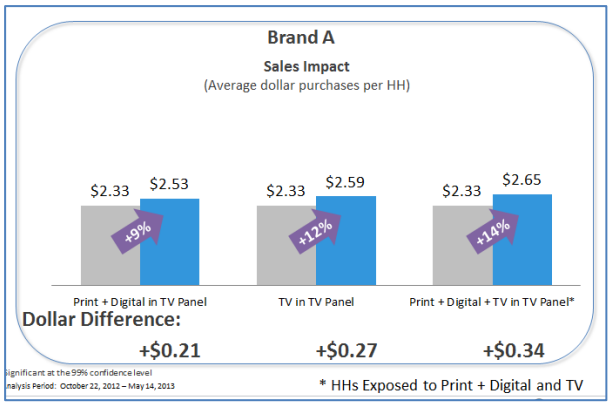
In Exhibit 8, the measures for sales of Brand A plus Brand B are provided side-by-side for easier comparison. Households exposed to the campaign in both Print+Digital and TV had significantly higher sales increases than either media alone.

Exhibit 8



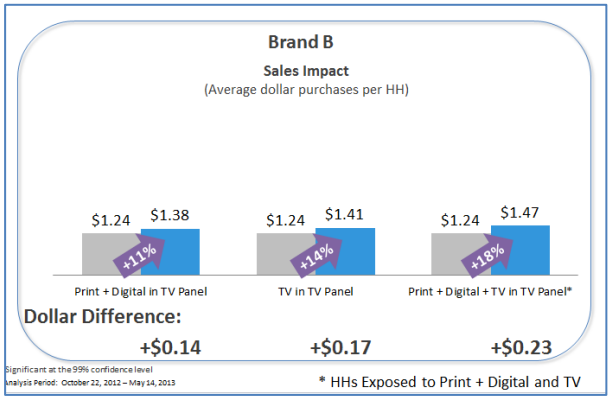
The sales effect of these campaigns was also measured on Brand A alone (see Exhibit 9.) The results are very similar, although the total sales are smaller since this is only one of the brands. The combined effect of both exposure to TV and Print+Digital is much higher than either media alone.

Exhibit 9



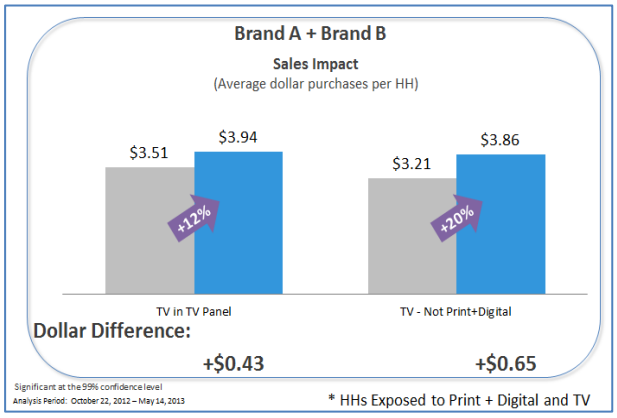
Brand B is a much smaller brand and therefore consumers spend less and produce lower expenditures per HH. Nonetheless, the increases for this brand were significant. Again, the combined effect of TV and Print+Digital is substantially higher than either media alone.

Exhibit 10



In the calculations of payback and synergy, the difference between the lift of the TV exposures among HHs that were exposed to the Print+Digital campaign were shown to be higher than the lift of TV among HHs that were not exposed to the Print+Digital campaign. Exhibits 11-13 show these analyses.

Exhibit 11



This was seen for each of the individual brands as well.

Exhibit 12

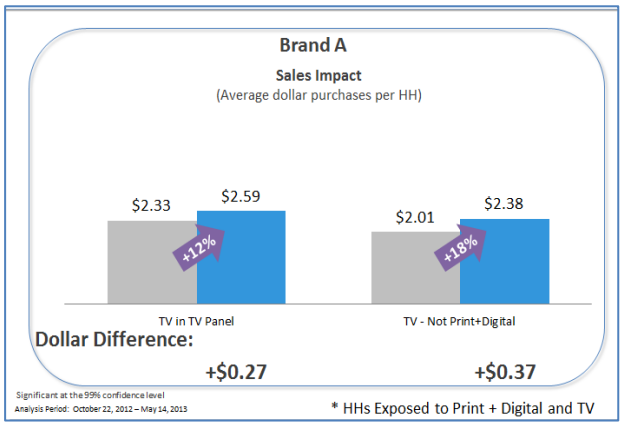
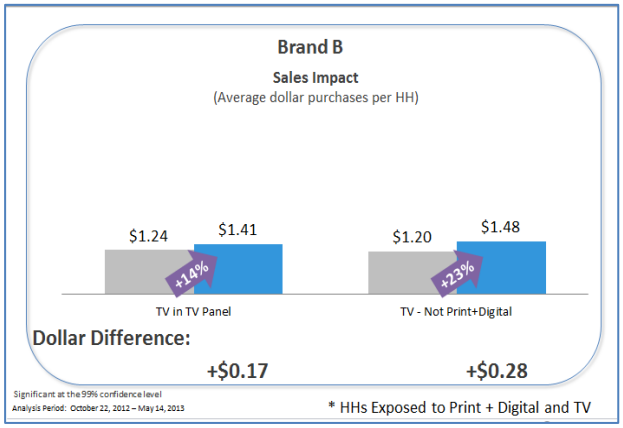


Exhibit 13



Dollar Payback Analysis

The following exhibits detail the dollar sales return on advertising spend. Exhibit 14 shows the results for Brands A + B, the Print+Digital campaign delivered a 34 cent increase in dollars per HH exposed to that campaign. This was measured against the total primary audience of matched subscribers, newsstand buyers and exposed digital HHs and FSD purchasers. The estimated number of HHs reached was 14.8 million. When we project the 34 cents per HH onto the 14.8 million HHs we get the total incremental dollars of $5 million.

Total HHs reach was calculated as follows:

1. Subscribers: average reach among Time Inc. subscriber HH universe as measured in NCS multiplied by Experian-matched total Time Inc. subscriber HHs projected to total Time Inc. subscribers based on the overall match-rate between Time Inc. & Experian.
2. Newsstand buyers: Based on total newsstand sales divided by average number of copies per HH.
3. Digital: Total Exposed NCS HHs divided by Total NCS Cookie Households multiplied by Total Online Universe.
4. Households exposed via Newsstand, Subscribers and Digital are all de-duped.

The total cost of this Print+Digital campaign was 1.6 million dollars. For Brands A plus B, the total incremental sales are estimated at $5.0 million which produces a payback or Return on Advertising Spend (ROAS) of $3.14. That means for every dollar spent on advertising, there was a return of 3.14 times as much in dollar sales.

Exhibit 14

Brand A+B	**Print Buyers + Digital**
Estimated Campaign Reach (Exposed Households)	14,755,247
Per Exposed HH Incremental $	X $0.34
Total Campaign Incremental Sales	= $5,016,784
Total Campaign Spending (Value)	÷ $1,600,000
Incremental $ per Print $ spent (Payback)	= $3.14

The television portion of the campaign was delivered to 112 million HHs with an incremental dollar sales return 43 cents per HH exposed. In total, that equals incremental total dollars of $48 million. The TV ad campaign cost $12.4 million creating a payback of $3.89 ROAS. While lower than the Print+Digital campaign ROAS, the TV campaign is delivered to almost all of the HHs in the US. Advertising response functions are thought to either be "S" shaped or to be of a diminishing return shape. (Fader and Hardie 1996; Du Plessis 2000; Vakratsas, Feinberg et al. 2004) In either case, the expectation would be that there would be less ROAS on so much more reach.

Exhibit 15

Brand A+B	**Total Television**
Estimated Campaign Reach (Exposed Households)	112,132,000
Per Exposed HH Incremental $	X $0.43
Total Campaign Incremental Sales	= $48,216,760
Total Campaign Spending (Value)	÷ $12,400,000
Incremental $ per Print $ spent (Payback)	= $3.89

To do these same estimates for the combination of TV and Print+Digital, the reach of each individual part has to be estimated. The HHs exposed to TV and Print+Digital HHs were measured to have higher incremental sales of 55 cents per HH. Using the same calculations as described above, the combined campaign for Brands A plus B delivered $5.10 ROAS, or 5.10 times as many dollar sales as were spent on advertising.

Exhibit 16

Brand A+B	**Television Only**	**Print Buyers + Digital + TV**	
Estimated Campaign Reach (Exposed Households)	97,376,753	14,755,247	
Per Exposed HH Incremental $	X $0.65	X $0.55	
Total Campaign Incremental Sales	= $63,294,889	+ $8,115,386	= $71,410,275
Total Campaign Spending (Value)			÷ $14,000,000
Incremental $ per Print $ spent (Payback)			= $5.10

The following tables share the same calculations for the individual Brands A and B.

Exhibit 17

Brand A	**Print Buyers + Digital**
Estimated Campaign Reach (Exposed Households)	14,755,247
Per Exposed HH Incremental $	X $0.21
Total Campaign Incremental Sales	= $3,098,602
Total Campaign Spending (Value)	÷ $1,600,000
Incremental $ per Print $ spent (Payback)	= $1.94

Exhibit 18

Brand A	**Total Television**
Estimated Campaign Reach (Exposed Households)	112,132,000
Per Exposed HH Incremental $	X $0.27
Total Campaign Incremental Sales	= $30,275,640
Total Campaign Spending (Value)	÷ $12,400,000
Incremental $ per Print $ spent (Payback)	= $2.44

Exhibit 19

Brand A	**Television Only**	**Print Buyers + Digital + TV**	
Estimated Campaign Reach (Exposed Households)	97,376,753	14,755,247	
Per Exposed HH Incremental $	X $0.37	X $0.34	
Total Campaign Incremental Sales	= $36,029,399	+ $4,957,763	= $40,987,162
Total Campaign Spending (Value)			÷ $14,000,000
Incremental $ per Print $ spent (Payback)			= $2.93

Exhibit 20

Brand B	**Print Buyers + Digital**
Estimated Campaign Reach (Exposed Households)	14,755,247
Per Exposed HH Incremental $	X $0.14
Total Campaign Incremental Sales	= $2,065,735
Total Campaign Spending (Value)	÷ $1,600,000
Incremental $ per Print $ spent (Payback)	= $1.29

Exhibit 21

Brand B	**Total Television**
Estimated Campaign Reach (Exposed Households)	112,132,000
Per Exposed HH Incremental $	X $0.17
Total Campaign Incremental Sales	= $19,062,440
Total Campaign Spending (Value)	÷ $12,400,000
Incremental $ per Print $ spent (Payback)	= $1.54

Exhibit 22

Brand B	Television Only	Print Buyers + Digital + TV	
Estimated Campaign Reach (Exposed Households)	97,376,753	14,755,247	
Per Exposed HH Incremental $	X $0.28	X $0.23	
Total Campaign Incremental Sales	= $27,265,491	+ = $3,393,707	= $30,659,198
Total Campaign Spending (Value)			÷ $14,000,000
Incremental $ per Print $ spent (Payback)			= $2.19

Exhibit 23summarizes the previous charts on incremental dollar sales return. The first column shares the cost of each part of the media campaign. The next three columns detail the separate brands and then A+B combined. In the top set of rows we share the incremental sales for each media element of the campaign and then the combination – Print + Digital + TV. Finally the bottom set details what the sum of Print+Digital added to TV would have produced.

In each case, the sum of Print+Digital is smaller than was actually delivered. The highest synergy came from Brand B with an additional $1.9 million dollars in incremental sales due to synergy. In general, the Brand A results added to the Brand B results are approximately the same as the Brand A + Brand B results. The differences are due to rounding across all of the calculations (the models create an estimate of incremental lift per household, which are applied to the numbers of HHs reached.).

Exhibit 23

	Media Cost	Incremental Dollar Sales		
		Brand A	Brand B	Brands A+B
Actual				
Print + Digital	$1,600,000	$3,098,602	$2,065,735	$5,016,784
TV	$12,400,000	$30,275,640	$19,062,440	$48,216,760
Print + Digital + TV	**$14,000,000**	**$40,987,162**	**$30,659,198**	**$71,410,275**
Straight Sum				
(Print + Digital + TV)	**$14,000,000**	**$33,374,242**	**$21,128,175**	**$53,233,544**
Bonus - Synergy		***$7,612,920***	***$9,531,023***	***$18,176,731***

CONCLUSIONS

Great strides have been made to perfect an approach to measure cross platform sales impact. In this paper we've outlined two approaches that can be used and provided results using these approaches.

To measure multiple media and in particular, synergy, very special data is required: single source data across those multiple media. NCS in collaboration with Time Inc. had that data. What was also needed was a method to measure the sales effects of each media as well as the combined effects.

As previously noted, both ANCOVA and Media Impact methodologies were used, in part because of the timing of the measurement and the unique traits of TV, digital, and print exposures. The opportunity exists to develop a mix-methodology that would read the entire results and then decompose the contribution of each piece. These refinements will be important as we continue to explore cross-media effects.

This paper did not include estimates on the secondary or pass-along reach of magazines. The reach, and subsequently sales impact, of the secondary audience from magazines exposed to a campaign is of significant importance and can be a large percentage of a magazine's total readership. NCS and MRI have developed a method for collecting secondary audience, and quantifying its impact, however this element of measurement requires funding from the industry to implement.

Limitations still remain, but we hope the learning from our work will help inform improvements in data collection, matching, and reach estimates for the future.

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