**Purchase Behavior Data Used in a “Closed-Loop” Powers More Effective Digital Advertising**

Satya Satyamoorthy  
Director of Development  
Nielsen Catalina Solutions

# Summary

For many years, consumer packaged goods (CPG) brands planned their media campaigns using demographic segments derived from research about the age and gender of their core customers as a “proxy” to plan, buy and measure media. Today, with the emergence of precision marketing and big data, it’s apparent that a demographic-based approach is wasteful at best.

## Purchase behavior-based Approach

One of the tools for precision marketing is to use the Brick and Mortar or offline purchase data for media activation, with digital being the most mature. This means to augment and/or replace demographic-based segmentation with purchase behavior-based segmentation of potential customer households.

Based on several studies and targets that were delivered to NC Solutions clients we find that demographics are, in fact, a poor predictor of purchasing behavior, especially for television. In the NCS study, “Deconstructing Demographics,” More than half of all household sales for average CPG brand fell outside of the demographic group that was targeted by advertisers, in this case, women 25 - 54.

## Deficiencies of Demographics alone

* *Demo-based media plans over-deliver to low-value consumers*
  + The average brand in the study delivered 64 percent of television media exposures to households accounting for 2 percent of sales among the heavy buyers
* *Demo-based media plans under-deliver to brands’ best consumers*
  + A mere 36% of exposures reached the households that accounted for 98% of brand sales among the heavy buyers
* *Common demo targets miss a majority of sales volume*
  + Households headed by women aged 25-54 provided just 47 percent of sales for the average brand

As it was found that using demographics as a proxy for buyers was missing the mark, it was attempted to segment households based on actual offline purchase behavior. The households were classified as Heavy Buyers, Medium and Light buyers, Switchers and Loyalists. The classification was based on the amount and frequency of purchasing the category and brands.

A study of over 800 digital campaigns showed that the average payback for all CPG categories was 2.79, ranging from 2.36 for food items to 5.29 for the pet category. A payback of 2.79 means that for every dollar spent on advertising returns nearly three dollars in incremental sales.

## The Rise of In-Flight Optimization

Digital campaigns can now be optimized for sales performance while the campaign is still running or “in-flight.” Once a campaign has been running for approximately 4-weeks, there is enough data to determine which of the variables are performing the best for driving incremental sales. Impressions can be shifted from the weaker performing variables to the better performing variables.

In summary, Consumer packaged goods (CPG) brands can experience a return an average of almost three in incremental sales for every dollar spent in online advertising that has been precisely delivered using purchase-based information.

## References:

* Deconstructing Demographics - How Demographic-Based Media Plans Miss the Mark for CPG Advertisers, Catalina Marketing 2012
* Several Client studies executed by Nielsen Catalina Solutions 2010-2015.