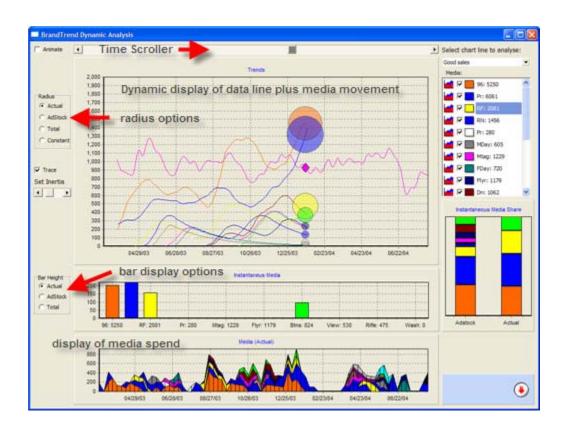
A WRC Research Whitepaper

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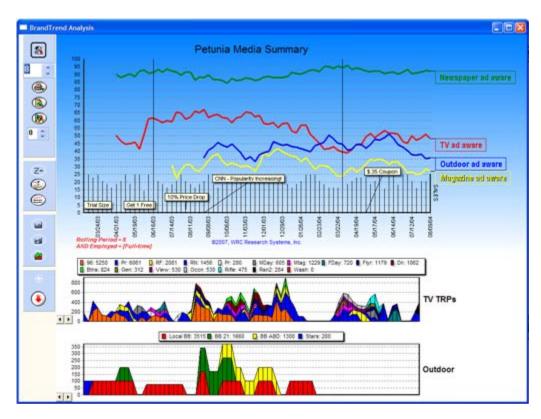
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A great way to start an analysis of advertising or marketing effects is to produce a trend chart. The chart should contain, at a minimum, one or more key measures that you are going to use assess the health of our brand or the effectiveness of your advertising or marketing. These measures may be brand or advertising awareness, brand images, purchase intention, brand equity measures, or measures of sales, volume or share. An additional requirement is that the chart should depict, in one way or another, the advertising or marketing spending or activity that occurs over the time period in question.



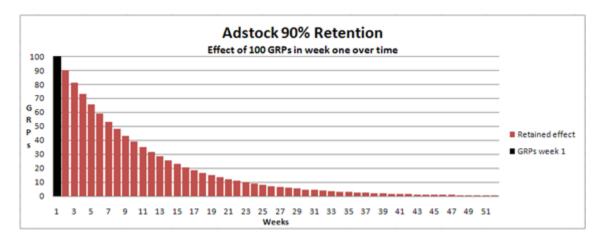
The analysis can begin once you can see the chart. You can then look to see if the onset of any ad or activity is followed by any increase in your measure(s) of interest.

The impact of any given ad execution (an individual piece of ad copy) is related to two factors, the extent to which the ad is observed, and the quality of the ad. The first factor is generally referred to as the amount of spend on the ad and is typically measured in Gross Rating Points (GRPs) or Targeted Rating Points (TRPs). The other primary factor is the quality of the ad. It is apparent that some ads are more memorable or more interesting than others. It is also apparent that some ads will be more specifically aimed at a certain image or feature of a brand than are some others and that therefore they are more likely to be able to affect the perception of that image or feature. A measure of the quality of the ad is actually what we need if we intend to compare the relative effectiveness of two or more ads. So in talking about the quality of an ad we are always talking about its ability to affect some particular response measure. And the measure of



the quality of an ad should be independent of the amount of spending on an ad. Indeed, if it were otherwise we would be unable to use the quality measure to compare ads. This quality measurement is typically indicated in terms of so much of a movement of the response measure per so many units of spend. Ultimately, the total effect of an ad on a measure is a function of the quality of the ad (in relationship to a particular measure) and the amount of spend behind the ad.

If an ad is having a positive effect on a measure, one should see an increase in the measure following the onset of the ad spend on the chart. The effect of the ad can easily proceed beyond the end of the ad spend for two reasons. The first is that quite often the response measure is displayed as a rolling or moving average which has the effect of flattening out and extending any observed effects. The second reason is the operation of adstock (Broadbent 1979). The idea behind adstock is simple—it is based on the idea that advertising is remembered and that across the population there is a certain rate at which humans will forget the advertising.

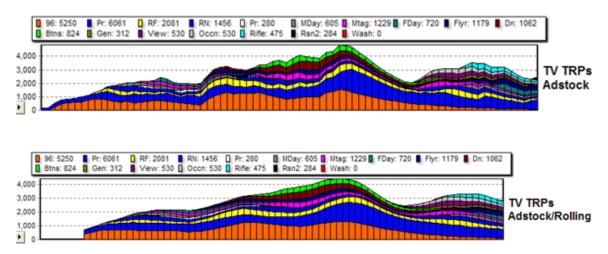


Adstock is a transformation applied to advertising spending data to indicate that advertising effects carry over from week to week. The chart above depicts the concept: 100 GRPs are spent in week one, with 90% of the effect of the 100 GRPs (however much it really is) carried over to week 2, and 90% of that carried over . . . Additional spending in weeks after week one will add to the "stock" of ad effectiveness. As you can see from the chart, advertising effects carry over well beyond the initial time period in which the ad appears. In regard to advertising awareness, it is generally accepted that the effect of advertising in a week decays 10% from week to week. A 10% decay rate equals a 90% retention rate.

The BrandTrend XL display aids in the analysis of ad and marketing effects in a number of ways. The response measures in the main screen can be rolled on any appropriate time period interactively. This allows the analyst to chose a rolling period that smooths out much of the random fluctuations (often referred to as "wobble") while not flattening the measure so much that the visible impact of the advertising or marketing is lost. For the two media boxes below the main chart, BrandTrend XL accurately aligns the dates of the media spending with the dates of the response variables in the main chart. Furthermore, the ad spending can be broken out by execution. It is vitally important to be



able to do this, because each execution can have a different quality. Just adding the spend of individual executions together for a display of total advertising will make it extremely difficult for the analyst to discern the actual advertising effect. The media display also allows for separation of spending by length, so that ads of different lengths may be separately displayed. Additionally, the media spending can be transformed into adstock or rolling adstock:

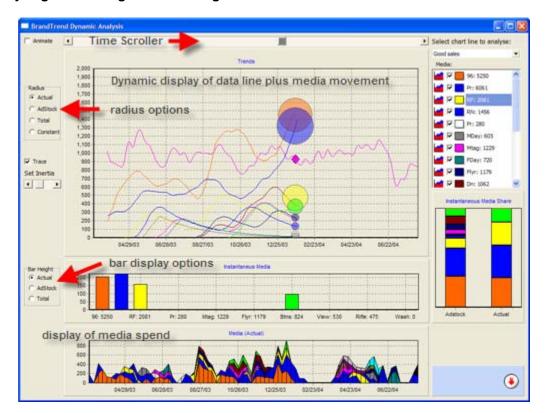


The reason one might want to display rolling adstock is to put the advertising into the same rolling period as the response variable so as to better visualize the effect of the ads as the come on air and then decay away when they go off air.

The analyst can also zoom in on selected time periods to take a closer look at the media and the response variables.

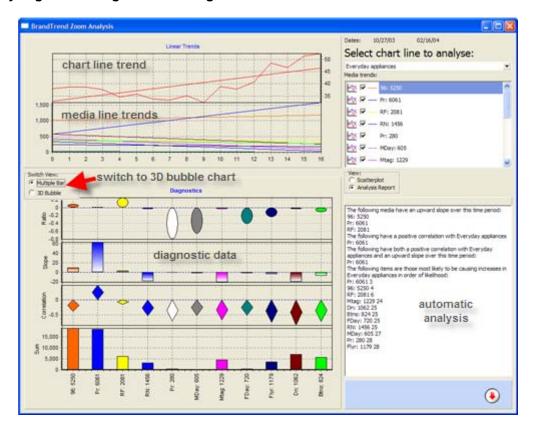
As media and marketing plans become more complicated and more information is displayed on the BrandTrend XL chart it can become more difficult to pick out the advertising and marketing effects. As a further aid to the analyst, the Dynamic and Zoom analysis screens were developed.





The Dynamic Analysis screen allows the analyst to scroll back and forth through time making it visually easy to correlate movements in the response measure with changes in individual executions or the appearance of events. For instance, the middle of the time period increase in "good sales" in the chart above is correlated with an increase in adstock for both the "blue" and the "brown" executions. It is also apparent that the large movements in the "orange" execution are not correlated with movements in 'good sales." Also seen in the display are indicators of instantaneous amounts and shares of adstock and actual ad spending. Various options allow the analyst to change what is depicted in the screen. The display can be put on automatic or the analysts can manually scroll back and forth.





The Zoom Analysis screen adds an additional enhancement to the researcher's ability to analyze media effects. The analyst first selects a time period where the response measure is increasing. (Typical media and marketing response measures can indeed fall on their own, or fall without support, but are unlikely to increase without some kind of effort on the part of the advertiser or marketer. Therefore, it is more justifiable to assume a relationship between the media and the response measure when that measure is on an upward trend.) The zoom analysis screen indicates the media trends over the time period as well as the media effect slope, the correlation with the response measure, and the ratio of spend to the increase in the response measure. The analysis continues by ranking the ad executions in order of those most likely to be influencing the increase in the response measure over the selected time period. In the chart above, only the first three executions have an upward slope, and only the "blue" execution has a positive correlation with our response measure. The written analysis (lower right of the screen) goes on to conclude that the "blue" execution is most likely to be influencing the upward trend of our response measure over the "zoomed" time period.

Using the exclusive BrandTrend XL Dynamic and Zoom analysis screens allows you to see what is truly going on in your trend charts. And BrandTrend XL allows you to easily trend any of your response measures with any and all of your media and marketing measures.



References

Broadbent, Simon, 'One Way TV Advertisements Work', JMRS vol 23 no.3, 1979. Broadbent, Simon, 'Modelling with Adstock', Journal of the Market Research Society vol 26 no.4, 1984 (pp295-312).

