

FUSION – CAN MAGAZINES BE EQUAL PLAYERS IN A FUSED DATABASE?

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Abstract

Fusion has just begun to be considered as a methodology for multimedia comparisons in the US. LWR has created a Fusion Laboratory supported by eight participants representing all aspects of the media business. How fusion is conducted will have a dramatic impact on media planning and buying. Magazines should be on an equal footing with TV in any fused database. One of the methodologies being developed and tested by The Fusion Lab maintains the full sample from both MRI and NTI databases being fused. This methodology, Full Sample Fusion ensures that the magazines maintain the full sample, thus keeping the magazine audience and duplication patterns unchanged and the robust product usage and lifestyle data intact. This new approach to fusion potentially assures magazines an equal footing in this new integrated media environment.

Introduction

Although fusion may be old hat to many of you, in the US media experts have begun to look at it from a fresh perspective. This paper will take you through a careful exploration of where fusion may fit in the American market. Also included are some new thoughts on which data should be fused to which, and why fusion should be done this way. For the record, fusion in the US has been defined, under the auspices of the ARF, as the creation of a pseudo, multifaceted single-source, respondent-level database from two or more single-source, respondent-level databases. This is in contrast to the much broader arena of data integration, which includes other “less rigorous and less minable” techniques for combining the aggregate or summary results of more than one survey.

How fusion is conducted will have a dramatic impact on magazine planning and buying and whether magazines can be on an equal footing with TV in a fused database. A new approach to fusion possibly assures this equal footing. It will be shown how fusion can be executed both to meet the needs of the US market and to make sure magazines get their “proper due”. A new fusion technique developed for the US market will be revealed, along with some results of the Fusion Lab. It is hoped that the approaches detailed represent some really new, “out of the box,” thinking.

Note: This paper does not include any of the actual results of the tests from The Fusion Lab because they have not been presented to The Fusion Lab participants for approval. The presentation will include results.

Background

In the spring of 2001, Leslie Wood Research created a Fusion Lab with participants representing many aspects of the media business. On behalf of this consortium, The Fusion Lab has begun testing a wide range of fusion methodologies as well as a variety of potential data “hooks.” The data being fused are MRI (the magazine and product usage survey) and Nielsen (the Network television survey) in the US. Two of the methodologies being developed and tested maintain the full sample from both of the fused databases. This is in contrast to traditional fusion methodologies where the full samples from both surveys are not included in the fused database.

Key questions regarding fusion will be addressed:

- What can fused data be used for in the US?
- What are we looking for from a fused media database? {How good (accurate) is this fused data?}
- What is the best way to do fusion in order to meet US market needs?

To provide some answers to these key questions, one new method of doing fusion, Full Sample Fusion, will be reviewed. A look at the implications of this new methodology on magazine buying and planning will conclude the paper along with the key points on two other critical issues.

What can fused data be used for in the US?

Fusion is currently being considered for the following purposes:

1. Product usage and/or life-style ratings for television shows and dayparts
2. Multimedia reach and frequency
 - a. against common product usage or life-style segments
 - b. against common demographics
3. Multimedia optimization (at the vehicle level)
4. An element in determining cross media budget allocation

It is suggested by the authors that fused media databases will **not** be used as a currency for media buys, at least not in the near future.

Are all of these uses equally important?

1. Product usage target ratings for television shows and/or dayparts are probably the most important factor driving the push towards having a fused database in the US. Product usage and life-style ratings will, at first, be the most widely used aspect of fused data. Planners will compare dayparts and program types by network. Buyers will use the fused data for comparisons of TV program packages – all against the newly created product/life-style targets.
2. Multimedia reach and frequency is probably the second most important reason for having a fused database. Planners have needed a better way to assess the effects of alternative media options, across media as well as within media. There will now be a need for better understanding of media synergy. Is it better to have an exposure in each media, or several in one and a reminder message in the other? Or, do the media really deliver different targets with different messages? Should magazines be planned to deliver the non-TV viewer, or do they not only deliver their own impact, but enhance the impact of the TV ad (the media multiplier effect)?
3. Multimedia optimization will be a third reason for having fused data. Until more is understood about the differences between the impact of an impression in each of the different media, optimization across media will produce interesting results. If optimization is used to help determine the mix, the users may find their magazine budgets increasing by large multiples. This will first shock and then perhaps persuade planners to increase their magazine budgets. The actual optimizations that are used will likely include some way to weight the value of the two different kinds of exposures.
4. When more studies on the incremental values of each impression in each media, both separately and both media together – to measure the synergistic effects, are completed, having a fused media database will make cross media budget allocations possible and give the allocation process a more meaningful basis.

What are we looking for from a fused media database?

There are two areas where accuracy is critical:

1. “Good” product usage data for TV shows, not episode by episode, or necessarily even individual show by individual show, but for program types and dayparts by network.
2. “Good” inter-media and intra-media duplication patterns across TV program/dayparts and a wide range of magazines for the full range of product usage targets and demographics.

What is the best way to do fusion in order to meet US market needs?

In most parts of the world, fusion is done by fusing the larger database (MRI) onto the smaller (Nielsen). This gives the smaller database the most consistent numbers, and reduces the sample for the larger. Although The Fusion Lab has included this method in the fused databases tested, it is clear that the results do not adequately address the needs of the US market.

Perhaps the ideal fused database would be a full MRI database with television ratings that match Nielsen’s ratings. This goal is a much more achievable goal than just fusing the two databases for several reasons:

1. MRI already has some television viewing data to help match respondents on
2. The robustness of the product usage and magazine data needs to remain unchanged.

If we are to add Nielsen data to an MRI database, however, several issues must be taken into consideration.

1. Timing: Nielsen TV data constantly changes; MRI magazine data is more static.
2. The analysis tools used by the two databases are different.

Nielsen data

- i. Reach and frequency for television on Nielsen data are produced either from optimizers which constantly reflect new data or from cume systems that are mostly based on modeled reach curves by daypart and demographic that change every few years at best.
- ii. TV Program rating analysis systems tend to be very sophisticated and use very current data.

MRI data

- iii. Reach and frequency for magazines on MRI data are mostly based on the number of issues each respondent read. This data is translated into C1's and C2's which are used in models along with duplication estimates for pairs of magazines to estimate the reach of a magazine schedule.
- iv. Product usage data from MRI is most often delivered by crosstab systems as well as a wide array of other statistical analysis software. Planners to support the understanding of target markets and to evaluate a wide array of media alternatives use these.

Perhaps what is needed is a single fusion formatted to look like both databases. In other words, a fused data set needs to replicate both the MRI data format and the Nielsen data format. Since the Nielsen data changes so often, the Nielsen version would have to be altered to hold respondent assignments from data set to data set, or a new tape would have to be created every week based on the new data. The key question in either case is: How often does a completely fresh fusion need to be done?

Fusing the smaller database (Nielsen) onto the larger (MRI) comes closer to addressing US market needs. However, all of the smaller database's respondents are still not used. Constrained Fusion uses all respondents from both samples, but also forces each person's complete weight to be fused. Although, Constrained Fusion solves many of our problems, it creates a very large database that is difficult to process. It also requires individual respondent weights, which Nielsen does not currently use (although Nielsen plans to include individual respondent weight within the next two years).

Full Sample Fusion

The technique The Fusion Lab developed uses all of the respondents, but does not require that every respondent have a weight. This methodology is called, Full Sample Fusion. There are several key elements that have been used to design this for the US market.

The two samples' population universe estimates were blended. Nielsen's populations for Age/Sex by County Size were chosen because Age/Sex are such important characteristics in media buying and Nielsen's and MRI's samples differ most across County Size. The respondent weights from MRI for people within the larger Age/Sex/County Size definitions were used and adjusted to sum to Nielsen's Age/Sex/County Size populations.

Respondent matches are chosen in a two-stage process. For each person in both samples, the ideal match is chosen, limiting the number of multiple matches for each respondent by use of an incremental weight. If an ideal match is the same for both respondents, they are then matched, carrying the MRI adjusted weight. If there are multiple matches, each MRI respondent shares their adjusted weight across all of its matches. In this way, the fused database tends to be slightly larger than the larger database, but not anywhere near as large as a database fused using a constrained algorithm.

Other features include:

1. All fused TV show ratings match very closely to Nielsen's for Age/Sex (and by County Size).
2. MRI respondents are left intact, with only a slight adjustment based on the differences in populations by Age/Sex and County Size.
3. All respondents are used from both samples.

Three of these fusions between MRI and Nielsen as well as three between Nielsen and Nielsen and three between MRI and MRI (nine in all) were performed. When Nielsen to Nielsen was fused, each respondent received an equal weight within Age/Sex/County Size. The tests were done based on this re-weighted database, rather than the traditional Nielsen approach of giving a different weight to each person based on the demographic being measured.

Results

To be issued prior to presentation.

Why Full Sample Fusion Matters to Magazines

When the more common approach to fusion, fusing the larger database onto the smaller database, is executed, the larger sample is generally the magazine sample. This means that the sample for the magazines has been reduced dramatically. This has several direct implications for magazines.

1. Only large magazines have broad enough samples to be reported.
2. All of the magazine data changes, including both the audiences and the duplication patterns.
3. If the smaller magazines are lost, and the audiences change, then magazine schedules will not deliver their reach potential, and will be given less importance in cross media comparisons.
4. The richness of the product usage data will be diminished. There will be fewer respondents for most categories and many of the life-style measures will be less robust.

Clearly, magazines should have an interest in how fusions are done, and what the resulting fused database's magazine audiences look like.

Other Critical Issues

In the progress toward integrated multimedia planning, there are several issues magazines should be closely focused on. They are:

- Audience Velocity Data
If magazines want to be considered as part of a multimedia campaign, magazines need to be able to be analyzed and scheduled by week rather than by year or campaign. Understanding, using, and improving magazine velocity data for inclusion in a fused database should be a key concern for publishers and agencies.
- Nielsen Data Costs
Magazines must have access to Nielsen's audience data at an equitable cost. They will not have access to fused media databases without it. Nielsen needs to price the data in such a way that most magazines will buy access to and use the data. Magazines need to be able to understand and assess their position in the new multimedia environment.

Summary

Integrated multimedia planning is not as far off as might be thought. Fusion is accelerating its arrival. It is a new world we are entering and each player needs to be able to "swim" in these deeper waters.

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