The impact of media fragmentation on audience targeting: an empirical generalisation approach

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The Impact of Media Fragmentation on Media Targeting

Abstract
Media practitioners and academics believe that fragmentation has resulted in audience segmentation (Belch and Belch 2004; Surmanek 1996). But do competing media reach particular groups within the wider audience? And do they do so more effectively than competitors?

To address these questions we replicated the work of Barwise and Ehrenberg (1988) and Collins, Beal and Barwise (2003) on television audiences and extended it to magazine and radio audiences. We found that while television audiences were largely unsegmented, that magazines and radio produced more segmentation (although not as much as the media claim). Where media claim to attract a specific audience, this core group is only a small proportion of their total audience and competitors often outperform them in reaching this sub-segment.

The Quest for Cost Efficiency
Worldwide advertising spend is well into the hundreds of billions of dollars each year, with an estimated 85% of this expenditure associated with the purchasing of media space (i.e. far less is spent on the development of the creative (Dyer, Forman and Mustafa 1992; Boivin and Coderre 2000)). Arguably, the most pressing current issue for media practitioners is the widely reported fragmentation of audiences (Montanus 1998; Jarvis and McElroy 2004; Saunders 2004). This fragmentation, coupled with pressure from stakeholders for a return on investment, has led advertisers to audience targeting strategies in order to minimise wastage from advertising to audiences who are unlikely to buy.

Implicit in the use of audience targeting among advertisers is the assumption that different media options do actually deliver different audiences. Specifically, that the differences between competing options (whether they be competing television/radio stations, or different program genres, or different day-parts) are significant enough to warrant decision making based on such differences, rather than just the media’s ability to reach mass audiences.

It is also assumed that the specific audience that a media claims to reach makes up the majority of its actual audience. It is common for media to claim that their audience has specific characteristics and is unique to their media (Tankel and Wenmouth 1998; Picard 2000; Keith 2004; McDowell and Dick 2005), which is perhaps not surprising given that advertisers who are target, place more value on reaching a specific target market than on reaching a mass audience. But how much credence should an advertiser give to such claims? Are media as selective and audiences as segmented as they claim?
Given the central role that audience targeting plays in media planning there is surprisingly little research on how audience profiles vary between competing media. The limited work in this area has been conducted for competing television channels and different television program genres, and has been limited to looking at differences in the audiences' demographic characteristics (Barwise and Ehrenberg 1988; Collins, Beal and Barwise 2003). Contrary to popular industry beliefs, these studies have found that the audience profiles of competing television stations and different program genres differ very little – some stations or genres are just more popular than others.

**Our Aim**

Given the findings of Barwise and Ehrenberg (1988) and Collins, Beal and Barwise (2003), we sought to take their broad approach and extend their results to other media (both in terms of different types of media (i.e. magazines and radio) and different elements of those media (i.e. different genres of content, different day-parts or sections, as well as competing channels, stations, or publications). As the earlier work had also been conducted in the United Kingdom and United States, we sought to extend the results to data for Australian and (for part of the analysis) New Zealand media.

Furthermore, previous studies in this area had considered how media delivered demographically different audiences - we also looked at how those audiences differed in the kinds of products and services that they consumed. We considered 28 different demographic characteristics, along with audiences' buying in 147 different product and service categories. We covered such a wide array of variables upon which audiences could differ to ensure that the defining characteristics of target audiences typically used by advertisers across a range of markets, would be included in the research.

Our data were also collected in 2005, nearly two decades on, and in a far more fragmented marketplace, than the seminal television work of Barwise and Ehrenberg (1988). Doing all of this meant working towards a potential empirical generalisation (Barwise 1995) to either support or falsify widespread, yet largely un-substantiated, industry assumptions about the potential for competing media options to deliver vastly different audiences.

**Method and Data Used**

**Methodological Approach**

The application of a ‘brand profiling’ method to studying the composition of media audiences is at the heart of our research. This method for analysing customer groups, was used due to both its use in brand segmentation studies with competing FMCG brands (Hammond, Ehrenberg and Goodhardt 1996; Kennedy, Ehrenberg and Long 2000), and its successful application to a media context (Barwise and Ehrenberg 1988; Collins, Beal and Barwise 2003, Nelson-Field, Lees, Riebe and Sharp 2005). In essence, brand profiling involves comparing the proportion (share) of a brand’s users (in this case, a media’s audience) who have a particular characteristic (i.e. are female) with the average
category user (for instance, the average watcher of television). Notable\(^1\) differences from the category average are then summarised and reported as evidence of where and how media differ in the audience that they deliver.

This simple, yet descriptive method is perfectly aligned to an empirical generalisation approach to knowledge development, in that it produces easily interpretable results and has the ability to highlight overall patterns in audience profiles across a wide range of audience characteristics (in our case over 60,000 individual comparisons were made). This analysis method is also suited to situations where typical statistical significance tests are not appropriate. For example, for such large scale data, any small difference observed would be rendered statistically significant (i.e. naturally producing a “null result”), when the managerial implications of such differences may not be as meaningful as the statistical tests indicate.

As an alternative approach, we could have used cluster-type techniques that have become increasingly popular in the brand segmentation field (particularly with organisations seeking to develop proprietary segmentation analysis tools) (Kennedy, Ehrenberg and Long 2000; Inglis and Johnson 1970; Schaffer and Green 1998). However, cluster techniques look for ‘managerially’ useful groupings, with an emphasis on placing every buyer in a segment (Collins 1971; Kennedy, Ehrenberg and Long 2000). Subsequently they were not applied in this research, as they would be likely to highlight small, and not necessarily managerially useful, differences between the profiles of competing media (Collins 1971).

The Data Used
The primary data set used in this paper is Roy Morgan Single Source (RMSS) (Sept 2005). It is the only true single source data available in Australia (in terms of capturing media and product use from the same individuals along with their demographic characteristics) that covers multiple media without the use of data fusion. RMSS is Australia’s longest established and most extensively used syndicated study and is the currency for media measurement in Australia. The media use, demographic characteristics and product usage of 50,000 Australians, is captured in the data each year.

This data is supplemented by New Zealand radio data to determine whether media’ sales propositions match the characteristics of the audience they deliver. The official radio audience surveys are collected by Research International to form the radio industry’s currency in that market. We use data from radio diary-based surveys across 13

\(^1\) While there is no definitive point at which a deviation from the average is considered significant, prior literature offers some indication of the magnitude that a deviation would need to be before it merits further discussion (for example, Hammond, Ehrenberg and Goodhardt (1996), Kennedy, Ehrenberg and Long (2000) and Barwise and Ehrenberg (1998)). As such, a notable deviation from the category average for an audience member characteristic is considered to be any deviation that is greater than 6 percentage points or less than -6 percentage points.
marketplaces collected in 2003, 2004 and 2005. At a minimum, the cumulative sample for any one year of this research was close to 17,000 respondents. We included this data to extend our findings from the Australian market into a market that claims it is very well niched.

Information regarding the claimed target audience of competing media vehicles was sourced from AARDS (Australian Advertising Rate and Data Service). AARDS is the advertising industry's standard media and advertising directory, which supplies media rates and specifications to media planners and buyers via subscription. Each media listing within AARDS is compiled via a self-completion survey that contains information from copy deadlines to execution sizes to target audience profiles. The media’s claimed target audience was then compared to a) the size of the media's total audience, and b) the average proportion of all direct competitors' audiences that were also within that same segment. These simple comparisons clearly describe a) the degree of ‘wastage’, and b) the performance of competing media within that segment.

**Our Surprising Results**

**Audience Segmentation**

As seen in Table 1 below, regardless of the media element observed, we found that in relation to most audience characteristics, competing media differ little in the audience they deliver. The differences that were observed, however, were greater for some media than others, and there were some patterns in the kinds of audience characteristics that produced the biggest differences.

For television, we found that just under 5% of the audience characteristics investigated differed between competitors to an extent where these differences were worthy of note. That is, we found further empirical support for the findings of Barwise and Ehrenberg (1988) and Collins, Beal and Barwise (2003). Where we found differences in the audiences of competing television genres/channels/programs/day-parts, such differences only related to the age profile of the audiences and the types of beverages they consumed.

**TABLE 1 INSERTED HERE**

For magazines and radio, we found more (and larger) differences in the profiles of audiences for competing elements (i.e. competing stations, genres, day-parts and publications). We found that radio was more segmented than television and less than magazines. For radio, we found that for 11% of the audience comparisons made, there were noteworthy difference in the audiences delivered by these media elements. For magazines this proportion was, on average, 20%. The largest and most regular differences in radio (genre, station, day-part) audiences related to the age and gender of the audience and the type of beverages that they consumed. In comparison to the findings for television, however, differences in the profiles of radio audiences were also
observed for a few other demographic, and many product usage characteristics. These differences, however, were typically smaller than those related to age, gender and beverage consumption.

Magazines were the most segmented of all media types. There were no clear patterns in how the readerships of different magazine elements (i.e. publications or genres) differed, other than that differences were greatest for demographic characteristics of the audiences, rather than for product/service use characteristics. The fact that magazines produce more segmented audiences than television and radio is not surprising, given the barriers that apply, or don’t apply, to the consumption of alternative magazines. For example, where consumption is restricted by physical means (i.e. magazines cost money), one might expect people to buy fewer publications and so restrict their buying to those that cover their real interests. Television and radio channels, in comparison, can be easily ‘flicked’ with no real cost to the listener/viewer.

**Audience Selectivity**

Our research supports the basic contention that audiences are homogenous. However, in comparison to past research, we did find some examples of where the audiences of competing media differed in their characteristics. To substantiate industry assumptions that such differences are large enough to warrant different advertising placement decisions, we tested the alignment between media claims and the actual audience delivered. In addition, we considered whether the claimed target audience of a media vehicle makes up the majority of that media’s actual audience.

Table 2 provides just one example of our findings. Table 2 shows the overall reach of a sample of 10 Australian magazines, all of which have a home and garden focus. The names of the publications are disguised to protect commercial interests. The table shows the proposed target audience, the share of the publication’s audience who fit that demographic description and the share of competitor’s audiences that fit into that demographic grouping. The table is ordered by how successful the publications are in reaching their claimed target audience.

**TABLE 2 INSERTED HERE**

While there is some overlap in the selling propositions of publications, it is clear that publications attempt to claim a unique audience to that of their competitors. Yet there is a clear empirical relationship between the ability of the publication to deliver that audience, and the abilities of competitors to do so. The sales’ proposition acts as a statement of the popularity of that kind of media (i.e. house and garden magazines) amongst the target group, rather than a statement about the media’s ability to attract a specific sub-segment. For example, Publication 1 claims its core readers are men and women, aged 25+, who earn more than $30 thousand dollars per year. This is a segment that reads house and garden magazines, rather than one that Publication 1 is particularly successful in.
reaching. In fact, 44% of any competitor’s audience has these demographic characteristics. For house and garden magazines, on average, only 20% of a publication’s readership was accurately described by its claims.

This same pattern was observed across different media vehicles, in different markets and across time. The analysis was conducted for competing radio stations, magazines, publications and television channels, where selling propositions are commonplace. For all magazines (not just house and garden publications), on average, 70% of their readers fell outside of the media’s claimed target. We observed a similar pattern in all other media. For television and radio, on average, 50% of their audiences were accurately described by their sales’ propositions.

This suggests that media propositions can be quite misleading, as there is little alignment between a media’s selling proposition and the actual audience achieved. And furthermore, where media may claim excellence in delivering a particular target segment, we found that often audience skews toward these segments are no greater than the skews of direct competitors within these same segments. Thus target segments, which are perhaps proposed because they are appealing for advertisers, are typically not unique to one media.

We also found that the more targeted the media claims to be, the higher the degree of wastage that media incurs. Specifically the more differentiated or selective the media claims to be, the lower the proportion of their audience that actually skews towards their claimed target group.

Implications
It may be argued that the increasing fragmentation of media has led to audience segmentation. Similarly, it could be argued that media owners have driven the fragmentation that has occurred by intentionally seeking to attract a specific (presumably more profitable) audience. Regardless of the origins of such claims in media, we find that while some media do compete by delivering audiences with similar characteristics (thereby supporting prior research on television audience profiles), that radio, and particularly magazines, are different.

For magazines and radio, there was some evidence that competing media do attract somewhat different audiences, in terms of their demographic characteristics, but also to a lesser extent in their use of products and services. Therefore, for advertisers (and depending upon the category being promoted) it may very well be possible to choose a media that delivers more potential buyers of your product/service with less wastage. Advertisers should, however, also be wary of the potential cost implications of doing so (which we have excluded from our discussion). They should also be mindful that while small media may be able to deliver a desirable target market with less wastage, that they may not be able to do so as quickly as a larger media. So a mass media option, may still
be preferable and cost effective. Advertisers who choose media based on a desire to match their target market with the audience of a particular vehicle risk choosing a (potentially more expensive) media that is no more effective than any other at delivering potential buyers of their product/service.

Furthermore, while audience targeting strategies may be considered a powerful tool for maximising efficiencies (Ephron 1998; Paech 2005), advertisers should be wary of media that claim to deliver highly differentiated audiences. The differences between competing media in the profiles of the audiences they deliver are rarely as extreme as media providers would have advertisers believe. The reality is that if a media claims a highly selective audience, then the proportion of their audience that is in fact highly differentiated is most likely small. In many cases, using less targeted media will achieve a better outcome for advertisers.
References


Sissors, J Z and Baron, R B (2002). "Advertising Media Planning". McGraw-Hill,


TABLES AND FIGURES

Table 1- Summary of Deviation Proportions by TV, Magazines and Radio Stations

<table>
<thead>
<tr>
<th>Media Element</th>
<th>Overall</th>
<th>Genres</th>
<th>Channels</th>
<th>Programs</th>
<th>Dayparts</th>
</tr>
</thead>
<tbody>
<tr>
<td>TV</td>
<td>6</td>
<td>6</td>
<td>5</td>
<td>11</td>
<td>4</td>
</tr>
<tr>
<td>Programs</td>
<td>11</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Day-parts</td>
<td>4</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Radio</td>
<td>15</td>
<td>19</td>
<td>20</td>
<td>20</td>
<td>7</td>
</tr>
<tr>
<td>Stations</td>
<td>11</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Day-parts</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Magazines</td>
<td>25</td>
<td>31</td>
<td>18</td>
<td>18</td>
<td>15</td>
</tr>
<tr>
<td>Publications</td>
<td>15</td>
<td>16</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Overall, we found that television remains the least segmented of the major media types and that demographic differences in audience composition for all types of media are greater than differences in the products/services that those audiences use.

Table 2 - Publication performance in Proposed Target Audience compared to Direct Competitors (Home and Garden Magazines)

<table>
<thead>
<tr>
<th>Publication (focused on Home and Garden content)</th>
<th>Total Reach 000's</th>
<th>Proposed Target Audience</th>
<th>% of Audience in Claimed Demo</th>
<th>% of Competitor's Audience in same Demo</th>
</tr>
</thead>
<tbody>
<tr>
<td>Publication 1</td>
<td>443</td>
<td>ALL 25+ 30+</td>
<td>40</td>
<td>44</td>
</tr>
<tr>
<td>Publication 2</td>
<td>1291</td>
<td>ALL 25+ 30+</td>
<td>39</td>
<td>44</td>
</tr>
<tr>
<td>Publication 3</td>
<td>537</td>
<td>ALL 25+ 30-69</td>
<td>31</td>
<td>33</td>
</tr>
<tr>
<td>Publication 4</td>
<td>459</td>
<td>ALL 25+ 50+</td>
<td>23</td>
<td>23</td>
</tr>
<tr>
<td>Publication 5</td>
<td>184</td>
<td>ALL 40+ 30-69</td>
<td>22</td>
<td>22</td>
</tr>
<tr>
<td>Publication 6</td>
<td>135</td>
<td>ALL 25+ 70+</td>
<td>20</td>
<td>22</td>
</tr>
<tr>
<td>Publication 7</td>
<td>204</td>
<td>Female 25+ 50+</td>
<td>14</td>
<td>9</td>
</tr>
<tr>
<td>Publication 8</td>
<td>252</td>
<td>Female 18+ 50+</td>
<td>13</td>
<td>10</td>
</tr>
<tr>
<td>Publication 9</td>
<td>114</td>
<td>Female 25+ 50+</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td>Publication 10</td>
<td>775</td>
<td>Female 25+ 50-69</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Average</td>
<td></td>
<td></td>
<td>22</td>
<td>21</td>
</tr>
</tbody>
</table>

Typically, nearly 80 percent of a home and garden publication’s total readership falls outside of the demographic segment they claim to specifically attract.