RETURN TO SPENDER: MAGAZINES' SALES UPLIFT & RETURN ON INVESTMENT

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Summary

In 2004 the UK's National Readership Survey published readership accumulation data, a breakthrough for the NRS (1). This prompted the Periodical Publishers Association (PPA) - the UK's professional body for magazine publishers – to commission an analysis of the TNS household shopping panel Superpanel in order to obtain fresh evidence on magazine advertising effectiveness. In particular, the PPA wished to use the new accumulation data for distributing across time, week by week, the exposures generated by each magazine insertion, so that exposures could be related more accurately to purchases.

The resulting project is called 'Magazines Uncovered', and in published form it consists of three brochures: 'Sales Uncovered', 'Planning Uncovered' and 'Communication Uncovered' (2). This paper focuses mainly on the hard data shown in 'Sales Uncovered'.

The findings from the TNS Superpanel analysis were that:

- Magazine advertising was associated with an additional sales uplift of 11.6% on average, in terms of sales value
- In terms of sales volume, the uplift was 18.1%
- There were also significant uplifts in terms of market share and market penetration
- In-store promotions work better when combined with magazine advertising
- The mixed-media campaigns which were examined in detail indicated that magazines were contributing roughly the same as television to the overall effectiveness of the campaigns, but at about a third of the cost.

Our interpretation of the last point above is that the television advertising was operating on a relatively shallow part of its diminishing marginal returns curve, whereas magazines – with much less of the budget – were still on a relatively steep part of their curve. Thus it is often the case that too much is spent in television, when it would be more effective to allocate some of the TV money to another medium.

Method

Superpanel's 15,000 homes record their take-home purchases via bar-code readers and keypads, on a daily basis. The analysis examined purchasing records during the 18-month period August 2002 to February 2004. Panellists' media exposure was measured through a self-completion questionnaire called mediaSPAN.

20 fmcg brands were selected for analysis according to a set of detailed criteria. One criterion was that magazines must account for at least 10% of the brand's total advertising expenditure. Another was to focus on brands whose sales had increased during the campaign period, in order to examine the keys to success: how far was the sales uplift associated with the use of magazines. There also needed to be a distinct campaign period, and a pre-campaign period of similar length with no magazine advertising. The 20 brands were those which met the criteria and which spent the largest amounts on magazines. The cut-off point turned out to be a magazine expenditure of £325,000 or higher. The 20 brands are listed in Appendix 1.

The NRS readership accumulation data were used for distributing across time, week by week, the exposures generated by each magazine insertion. This meant that a more realistic comparison of week by week exposures and purchases could be made, than in previous studies prior to accumulation data being available.

Taking each of the 20 fmcg brands' campaigns in turn, Superpanel main shoppers were ranked according to the weight of their exposure to the magazine campaign. The top 40% of main shoppers were defined as the 'exposed' group; in general, they accounted for about 90% of total magazine exposures. The bottom 40% of main shoppers in the ranking were defined as the 'non-exposed' control group; they only accounted for around 2% of total magazine exposures.

For each brand, purchases were analysed among the exposed group and the non-exposed control group, for each week during the pre-campaign period, and during the campaign period. Purchases during the campaign period were then compared with purchases during the pre-campaign period, separately for the exposed and non-exposed groups. The analysis was therefore based on tracking the purchases of the same individuals (the exposed group, and the non-exposed control group) through time. External events in the marketplace applied to both groups, and any differences in composition between the two groups were constant through time.

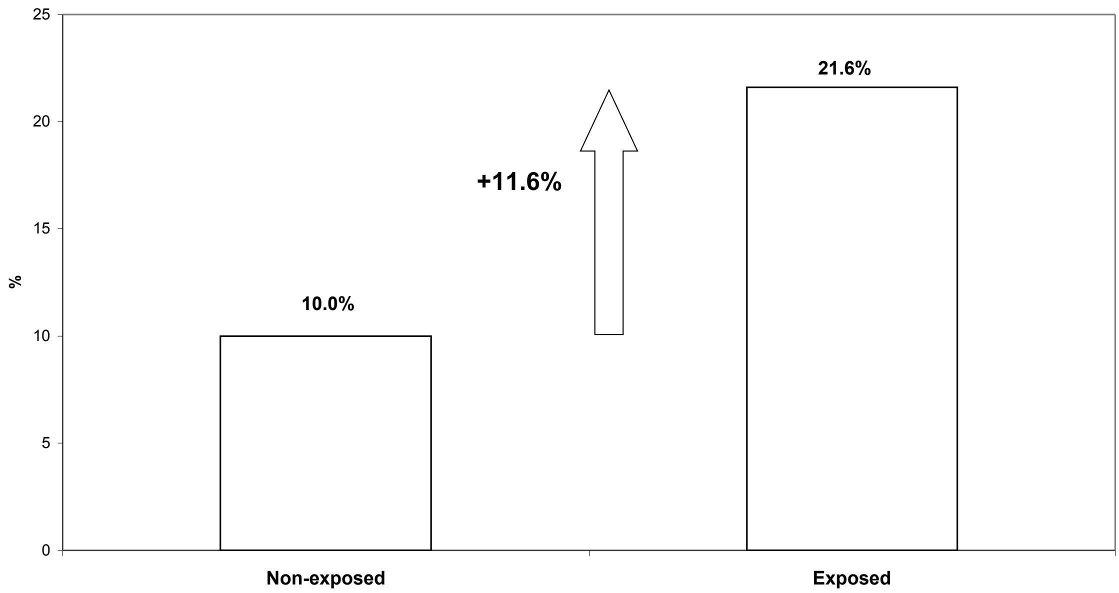
Differences between the two groups in terms of sales uplift (in the campaign period, compared with the pre-campaign period) were therefore associated with exposure to magazine advertising.

Further technical details of the analysis can be found in 'Sales Uncovered' (3).

11.6% uplift in sales

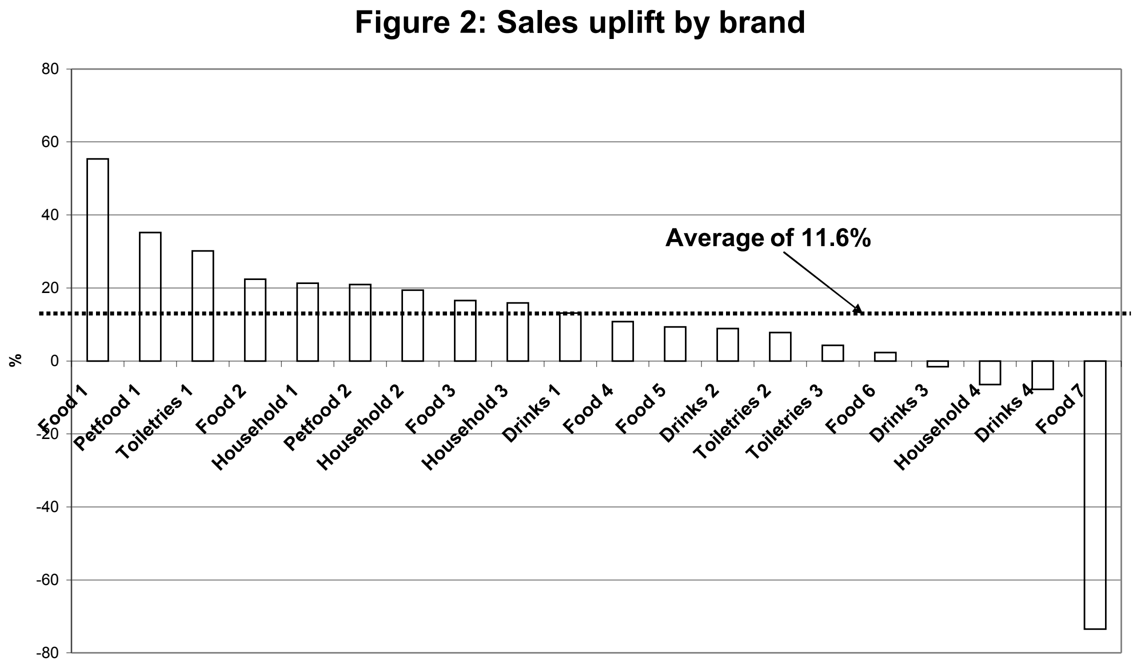
Aggregating the results of all 20 brands, there was an average sales increase of 10.0% among those not exposed to the magazine campaign – the increase being due to other activities than magazine advertising. However among those exposed to the magazine campaign, the average sales increase was 21.6%. Thus the magazine advertising was associated with an extra 11.6 percentage points increase in sales (in terms of value) – Figure 1.

Figure 1: % increase in sales (£)



The average of 11.6% represents a range of variation brand by brand of course. However the range was not excessive, nor distorted unacceptably by extremes, and 10 brands lay above the average and 10 lay below it. Figure 2 presents the data; the dotted line shows the 11.6% average.

For 16 of the 20 brands the magazine-exposed people showed a larger increase in purchasing than the non-exposed people. For the other four brands, sales rose among the non-exposed by more than they rose among the exposed group. (The most 'negative' of these four brands, Food 7, has subsequently been removed from the market.)



Other criteria of performance

Other criteria of performance were also examined. Magazines were linked with an average increase of 18.1 percentage points in volume sales. Similarly, magazine advertising was linked to an uplift of 6.7 percentage points in market share on sales value and 8.6 percentage points in market share on sales volume – as Table 1 indicates.

It was also found that magazine advertising was winning new customers for brands and at the same time increasing the average weekly weight of purchase. Across the 20 brands, brand penetration of the market rose by 7.0% in the campaign period among people not exposed to magazine advertising, but rose by 15.5% among those who had seen the magazine ads – an uplift of 8.5 percentage points.

Meanwhile there were increases of 2.1% and 3.7% in average weight of purchase, among the non-exposed and exposed respectively – an uplift of 1.6%. Thus the sales uplift from magazines was achieved mainly by bringing new buyers to the advertised brands (i.e. increase in penetration), and only to a lesser extent by increasing the average weight of purchase – a much harder factor for advertising to affect.

Table 1

	Non-exposed	Exposed	Difference	Index
Sales (£)	10.0%	21.6%	+11.6%	216
Market Share (£)	8.8%	15.5%	+6.7%	176
Sales Volume	11.2%	29.3%	+18.1%	262
Market Share (vol)	8.8%	17.4%	+8.6%	198
Penetration	7.0%	15.5%	+8.5%	221
Ave. Weekly Purchase	2.1%	3.7%	+1.6%	176

Another finding was that in-store promotions work better when combined with magazine advertising – the data are shown in 'Sales Uncovered' (3).

Magazines' return on investment

TNS were able to estimate the return on investment (ROI) delivered by magazine advertising, for each of the 20 campaigns. Short-term ROI was calculated as the weekly sales generated by the advertising (the % sales uplift times the weekly sales of the exposed group) multiplied by the number of weeks in the ad campaign. Averaged across the 20 campaigns, the short-term return on investment was £1.79.

However the advertising has an effect beyond the narrow campaign period. People who were induced by the advertising to buy the product during the campaign often continued buying long after the campaign had finished. By analysing the repeat purchase rate after the end of the campaign, TNS were able to estimate the total incremental sales during the 12-month period since the campaign began. Averaged across the 20 campaigns, the medium-term (12-month) return on investment was £2.77.

That is, for every £1 spent on magazine advertising, on average the advertiser gained sales worth £2.77.

Mixed-media campaigns: TV+magazines

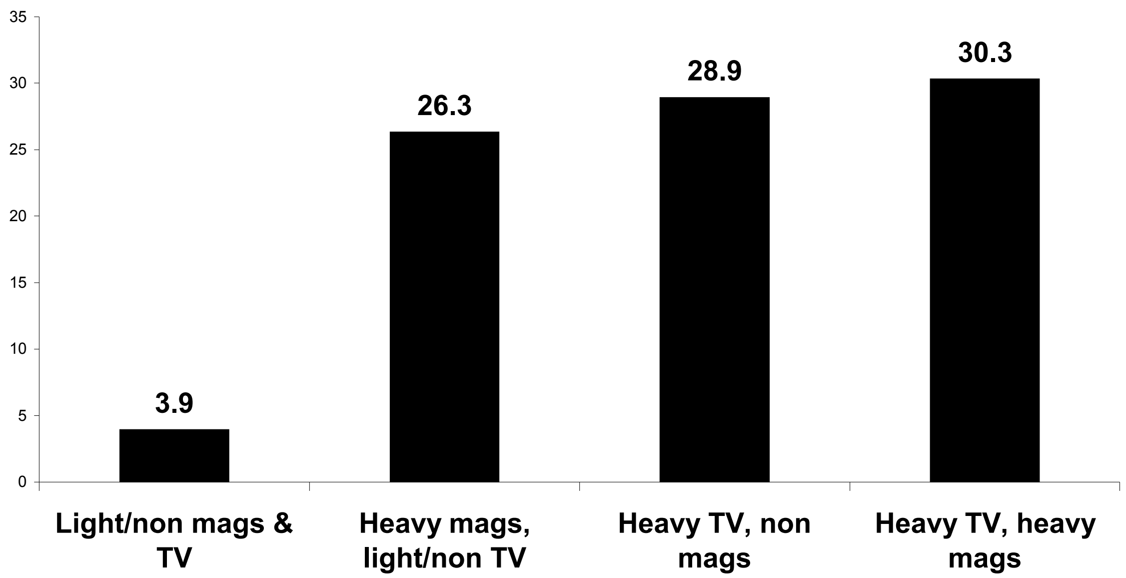
Among the 20 brands analysed, seven were TV+magazines campaigns whose impact was assessed by medium. The average budget split across these brands was that 70% of the budget was spent in television, 22% in magazines, and 8% in other media.

For each of these seven campaigns, Superpanel main shoppers were ranked according to their weight of exposure to the magazine advertising (as described) and, separately, to the TV advertising.

For television, a medium with a more diffused audience than magazines, the 40% most heavily exposed to the television advertising were defined as 'heavy viewers'; they accounted for about 72% of all television exposures. The bottom 40% accounted for about 13% of all television exposures, so they were described as 'light/non viewers' rather than 'non viewers'.

Aggregating across the seven campaigns, main shoppers who had seen none or very little of either the television or magazine advertising showed only a small increase in sales during the campaign period: 3.9% (Figure 3).

Figure 3: Magazines & TV: % increase in sales (£)



By contrast, those exposed to the magazine advertising but who were only lightly or not exposed to TV, showed a much higher increase in sales. The same was true of those heavily exposed to TV but not exposed to magazines. For the two groups, the sales increase was 26%-29%. Clearly, advertising is effective in increasing sales.

Examination of the sales value figures showed that these two groups had similar purchasing levels during the pre-campaign period, and identical *absolute* increases in sales during the campaign period (hence the very similar *percentage* increases in sales).

Relative cost-efficiencies of advertising

The relative cost-efficiency of the two media may be examined by looking across all four groups shown in Figure 3. To do this, the absolute increases in sales value (£) are profiled across the four groups as represented in the pie chart, Figure 4.

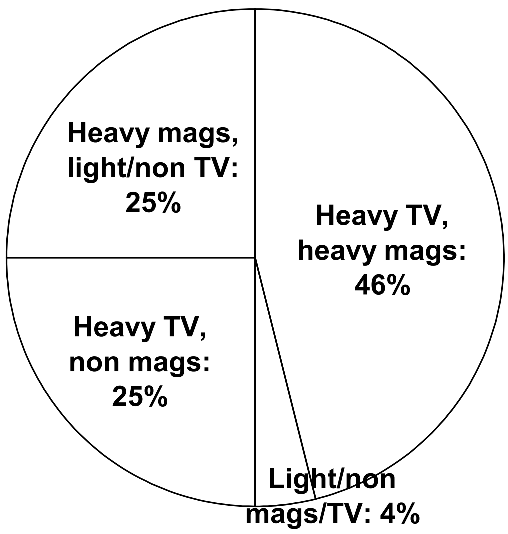
Television advertising was closely linked to 71% of the sales increase: that is, the 46% among the TV+magazines exposure group, plus the 25% from the TV-only group. There may also have been some smaller effect among the group heavily exposed to magazine advertising and only lightly or not at all to TV.

Magazine advertising was also closely linked to 71% of the sales increase: the 46%, plus the 25% from the heavy magazines & light/non TV exposure group.

This can be compared with the profile of advertising expenditure: 70% on TV, 22% on magazines. While magazine advertising appears to have achieved something approaching the effect of television advertising, it did so at less than a third of the cost.

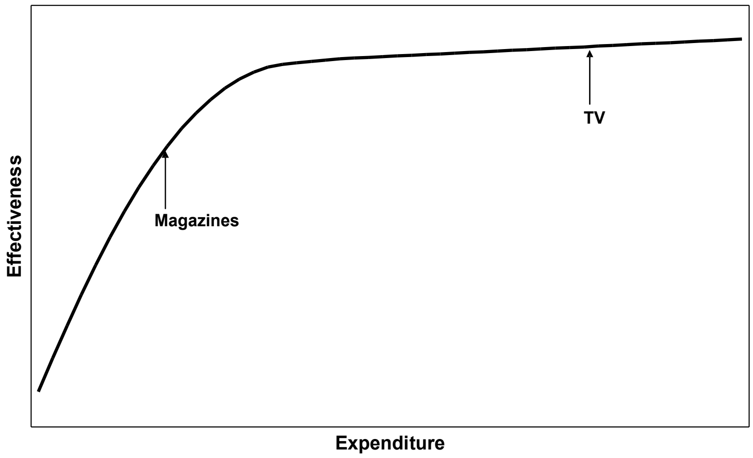
This does not mean that magazines are two or three times more cost-effective than television in all circumstances. What it indicates is that, pound for pound, magazines are more cost-effective *at the relative levels of expenditure in these seven campaigns*.

Figure 4: Increase in sales (£): profile



It seems very plausible that television had been allocated too much of the budget and magazines and other media too little. We believe that in general (and with some exceptions in particular circumstances) the law of diminishing marginal returns applies to the effectiveness of advertising. Beyond a certain point, the more the money spent in a medium the less effective each successive tranche. The position can be reached where extra money is yielding very little return. In the hypothetical and simplified Figure 5 television is in this situation.

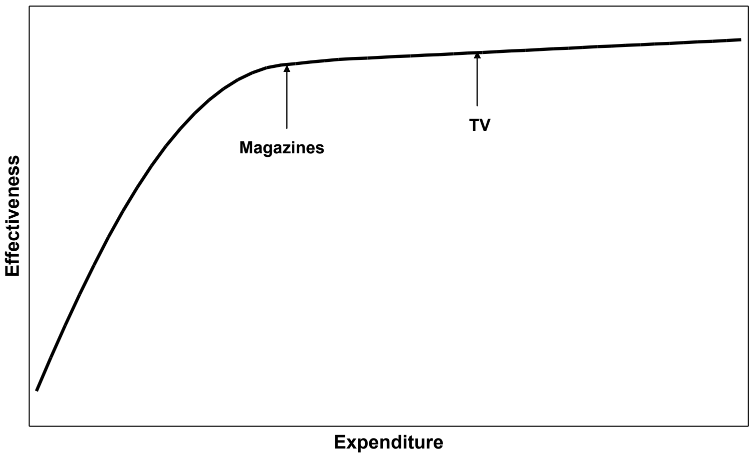
Figure 5: Cumulative effect of increasing ad expenditure (1)



In view of the relative spend in the seven mixed-media campaigns (TV heavily outspending magazines and other media), we suspect that television is on a shallow part of the curve for these campaigns, and magazines are on a steep part - as in Figure 5. (For simplicity, Figure 5 shows both media on the same response curve, but the likelihood is that any two media would actually have different curves, though of broadly similar shapes.)

If TV expenditure was reduced, it would be the least productive part of the expenditure which was being removed, thus raising the average effectiveness of the remaining TV money. Average return on investment (ROI) would rise. If the money saved was placed in magazines, it would be yielding returns that were greater than it would have achieved if spent on television, though lower than the first tranche of expenditure in magazines. Thus magazines' average return on investment would begin to fall, and the ROI of the two media would come closer (Figure 6). Eventually it could reach the position where the ROI of both media were the same.

Figure 6: Cumulative effect of increasing ad expenditure (2)



Magazines' share of budget

Some limited support for this idea - that under-use of magazines compared with television helps account for the difference in cost-efficiency - comes from another analysis by TNS of the 20 brands studied. They were divided into those spending 50% or more of the budget in magazines (including magazine-only campaigns), and those that spent less than 50% in magazines. It was found that the additional sales value gained by advertisers spending the lion's share in magazines was greater – by 5.8% - than for the other campaigns with a minority in the medium.

Low weight of weekly ratings in magazines

The argument for more advertising weight in magazines is reinforced by considering the ratings levels. For the 20 brands analysed by TNS the average number of magazine adult ratings per week of magazine advertising was only 9. Allowing that advertisers in magazines were generally seeking targeted audiences rather than all adults, the average target ratings per ad week was around 14. This is very low (though it was sufficient for TNS to detect a significant magazines effect on purchasing, as already described), and a television buyer who bought a mainstream TV campaign with only 14 ratings per week would probably be sacked.

The contrast between weight of magazine ratings and television ratings is highlighted by examining Nielsen Media Research, NRS and BARB data. In the UK during the year 2004, among the largest 20 magazine advertisers, magazines' average gross adult ratings per magazine advertising week was only 20; among relevant target groups the figure was probably around 30 gross ratings per week. For the 20 largest television advertisers, television's average gross adult ratings per TV advertising week was 156! That's five times higher in a medium that is far more expensive per rating point or per unit of sales effect.

Another measure is total campaign weight during the calendar year 2004. The 20 largest magazine advertisers in 2004 achieved an average of 670 adult ratings, or about 1000 target ratings, from their magazine advertising. But the 20 largest television advertisers in 2004 received an average of 7000 ratings from their TV advertising.

Clearly there is great scope for raising the weight of advertising in magazines, and thereby improving a mixed-media campaign's overall return on investment.

References:

(1) Guy Consterdine: *Distributing Print Exposure – A New Planning Tool*, Admap, November 2004

(2) PPA: *Magazines Uncovered*, 2005. Results and interpretation are published in the form of a series of three brochures: *Sales Uncovered, Planning Uncovered*, and *Communication Uncovered*. Downloadable from www.ppamarketing.net

(3) PPA: *Sales Uncovered*, 2005, pages 18-19. Downloadable from www.ppamarketing.net

Appendix 1: the 20 brands examined in the TNS Superpanel analysis

Anchor Cheese	Bertolli Pasta Sauce	Daz tablets
Domestos	Dove Deodorant	Flora Pro-Activ
Kenco Really	Laughing Cow	Muller Squeezer Corner
Nescafe Cappucino	Olivio Bertolli	Persil Aloe Vera
Persil Liquigel	Sacla Pasta Sauce	Sheba pet food
Sunny D	Sunsilk	Sure Deodorant
Tropicana	Whiskas	