

2.8

MAGAZINE SOURCING

Abstract

By estimating total sales from survey purchase claims, and comparing the results against circulations for the various publication-types, gross over-estimation is found which is closely related to the number of readers per copy implied by syndicated Recency surveys. These and other findings indicate that the Recency method is so inaccurate that experimentation to develop a replacement is essential.

In his Thomson Gold Medal winning paper 'Primary readership', Agostini (1964) noted that (if we were to take as a principle that there is only one primary reader per copy, then ...) "In this was the number of primary readers should be equal to the number of circulated copies, a severe test of reliability for a readership survey."

Agostini defined primary readership for qualitative purposes, such that there is not necessarily a one-to-one relationship between primary readers and magazine copies. However, survey estimation of magazine purchasing and subscription, remains potentially a most useful means of assessing the validity and reliability of readership surveys; albeit a severe test.

Moreover, by the experimental development and testing of questions on magazine 'sourcing', given that we have audited circulation figures as our benchmark, we may learn much about how respondents comprehend and answer reading questions in general. This will, the author submits, lead us to see the problems in readership research in a very much clearer light.

A third attraction of magazine sourcing questions is that they can be adapted to provide qualitative classification of readers, the purpose for which Agostini's definition of primary readership was proposed. This paper

introduces the concept from these perspectives and presents the results of some experimental use of magazine sourcing questions.

Part 1 What is revealed about the validity of the Recency method, by magazine sourcing data.

Part 2 Major factors related to response error in the Recency method.

Part 3 The use of magazine sourcing questions for readership measurement and classification.

WHAT IS REVEALED ABOUT THE VALIDITY OF THE RECENCY METHOD, BY MAGAZINE SOURCING DATA

The term 'magazine sourcing' is intended to embrace all the various means by which readers obtain or pick up magazine copies. In this paper it also is used to refer to any survey methods of measuring how magazines are obtained or picked up, although it is differentiated from the term 'source-of-copy' by not necessarily being contingent upon reading questions.

That is, whereas a source-of-copy question will follow upon a reading question (ie to determine the source of the copy claimed to have been read), we may ask sourcing questions on their own. For example, after an appropriate 12-month filter question ... "When was the most recent occasion when you *personally* went into a news-agent, shop, news-stand, or anywhere else, and bought a copy of ... (magazine)?"

In Australia as well as other countries, the Recency method produces high readership estimates which, when divided by audited circulation figures, translate into readers per copy levels which are difficult to believe. Table 1 shows that for a typical monthly

motoring or shelter (ie home-maker) magazine, the syndicated readership survey (Recency method) implies an overall average of ten or more readers per copy.

If these readership levels are accurate, then the numbers of buyers estimated by asking source-of-copy after the Recency questions, should approximate audited circulations. But it has been found that the circulation estimates produced in this way are very much higher than the audit figures.

TABLE 1
Over-estimation of circulation by recent reading coupled with source-of-copy question, and by a direct 'recent purchase' question

Publication category	Syndicated Survey rpc	Over-estimation by	
		Source-of-copy %	Recent purchase %
<i>Weeklies</i>			
Women's	4.1	+ 22	+ 41
General interest	7.0	+ 33	+ 40
<i>Monthlies</i>			
Women's	4.6	+110	+ 82
Shelter	10.7	+105	+106
Motoring	13.2	+291	+269

Circulation over-estimation by the source-of-copy question, as found on a N=1,752 study carried out by the author for the Australian Magazine Publishers Association in 1983, averaged 22% for Australia's two weekly women's magazines and 33% for the two general interest weeklies. For six women's monthlies the over-estimation averaged 110%, as against 105% for five shelter magazines and 291% for five motoring titles.

The Average Issue Readership estimates upon which the above results are based,

were somewhat lower overall than those of the syndicated Recency survey covering the same period.

Very comparable results were obtained when standard Recency questions were modified by substituting 'bought' for 'read or looked into', in an N=1,716 experiment conducted by the author in 1985. The over-estimation of circulation for the weeklies was 41%; it was twice that for the monthly women's, 106% for the shelter titles and 269% for motoring magazines.

These margins of over-estimation bear a close relationship to the relative rpc figures derived from the Recency-based syndicated survey in Australia - rpc levels which parallel those in other countries where Recency is used. It is likely that whatever is producing the high rpc figures, is also producing the high levels of over-estimation of circulation.

On the basis of the findings presented above, considered in conjunction with what common sense and simple calculations suggest as being the possible range of rpc values, it appears that rpc estimates similar to those in Table 1 are likely to be a reflection of grossly inflated readership estimates. The magnitudes of over-estimation may be as much as those in Table 1 - ie commonly 100% for monthlies, and even as high as 200% or more!

It is worth noting that when the syndicated Recency rpc figures are divided by the margins of over-estimation found, the theoretical rpc levels yielded a range from 2.5 to 5.2 (down from the range of 4.1 to 13.2), for the groups of magazines appearing in Table 1. These lower figures are consistent with other theoretical work on rpc, such as the findings presented by Langschmidt at the Montreal Symposium.

Clearly, there is something about these different types of magazines which influences Recency-like magazine

sourcing questions to produce the degrees of over-estimation found. This is examined in the next section.

MAJOR FACTORS RELATED TO RESPONSE ERROR IN THE REGENCY METHOD

The results for weeklies versus monthlies overall, and in particular for the groups of monthly titles shown in Table 1, suggest a link between the margin of over-estimation and the magazine's penetration and frequency of purchase. For example, an average issue of a typical motoring magazine has the fewest buyers (ie the lowest circulation), and it has less frequent buyers than monthly women's and shelter magazines.

This is evident from the audience turnover rates reported by the Australian syndicated readership surveys, and it follows from repeat-buying theory. That is, less frequency purchasing (and hence a higher turnover of users) is characteristic of brands with lower market shares. (Ehrenberg, 1972)

When there is a higher audience turnover rate, then for every buyer who was active in the immediate past publication cycle, there are relatively greater numbers of less recent buyers 'available' to incorrectly claim purchase in response to the survey question.

Thus the likelihood of error due to replication, telescoping, and in particular to what has been termed the 'voting effect', should be higher when the pool of occasional but non-current buyers is greater relative to circulation for one magazine than for another. This could explain differences between weeklies and monthlies overall, as well as between specific publication types.

To test this hypothesis, frequency of purchase was asked on the author's N=1,716 Recency-like experiment. The following procedure was used to measure

the size of the pool of occasional but non-current buyers: of the respondents who claimed to have bought one out of six issues of a given magazine 5/6ths (ie 83.3%) were considered as having the opportunity to incorrectly claim purchase in the past publication cycle.

These respondents were added into the pool of occasional but non-current buyers, together with 66.7% of the buyers of two issues out of six, 50% of the three out of six buyers, 33.3% of the four out of six buyers, and 16.7% of the five out of six buyers. This total pool of occasional but non-current buyers was projected up from a sample proportion to an estimate for the total population, and then percentaged on the actual circulation for each magazine. The results appear in Table 2.

Table 2
Over-estimation of circulation by a direct 'recent purchase' question, compared with size of pool of occasional but non-current buyers as a percentage of circulation

Publication category	Over-estimation by the recent purchase question %	Size of pool of non-current buyers	
		(a) %	(b) %
<i>Weeklies</i>			
Women's	41	189	87
General interest	40	250	111
<i>Monthlies</i>			
Women's	82	163	67
Shelter	106	341	117
Motoring	269	391	187

(a) total pool

(b) excluding buyers of only one issue out of six

Buyers of only one issue out of six might reasonably be excluded from the calculations described above (as in the right-hand column), on the grounds that they are infrequent enough not to feel the desire to 'vote' for that magazines, and also for the telescoping effect to be minimal. Excluding them does in fact improve the correspondence between the size of the pool and the degree of over-estimation of circulation.

Similarly, finer judgements could be made about the probability of over-claiming within each frequency group; and so it can be seen from Table 2 that it would not be difficult to model the relationship between the size and composition (ie the contribution from each frequency group) of the pool of occasional but non-current buyers, and the degree of over-estimation of circulation by the survey.

It is clear from Table 2 that the major source of remaining variance in such a model would be the publication cycle. The effect is more evident in the data for monthlies than for weeklies, and of course it is quite understandable that the telescoping and 'voting' effects would come into play relatively more strongly within a one-month recall period.

Possibly another major factor is the overall number of magazine purchase claims which could be made correctly by the buyers of any particular magazine, on the assumption that if the buyers of (say) a motoring title tend to buy that magazine and *few if any others*, then this would give them extra reason in the interview situation for wanting to claim recent purchase of that magazine.

The total number of magazine purchase claims made in the past month by male respondents, represented only 87% of the number of males in the sample - ie on average, less than one claim per male respondent. For female respondents the average represented 183% (almost twice) the female sample size.

This could mean that males have a greater motivation to over-claim, simply so as to convey the impression that they do buy magazines from time to time, which would further explain why male interest magazines (such as the motoring titles) tend to reflect higher levels of circulation over-estimation.

The primary factor - viz the size of the pool of occasional but non-current buyers - has its parallel in readership data. Ratios of the number of 'occasional' and more regular readers to recent readers (ie readers in the past week) were determined by the 1983 study conducted by the author for the Australian Magazine Publishers Association.

The N=1,752 survey asked a reading frequency question with scale-points ranging from 'never' and 'only rarely' through 'occasionally' and up to 'always'. Each scale point was also quantified in terms of a particular number of issues read.

A source-of-copy question was asked, and the over-estimation of circulation has been shown already in Table 1. The ratio of the total pool to the Average Issue Readership for general interest weeklies was 50% higher than that for the weekly women's titles, and accordingly the degree of circulation over-estimation also was exactly 50% higher.

The results were less conclusive within the monthlies, the ratio being significantly higher for the motoring magazines than for the women's titles, which is consistent with the relative degrees of circulation over-estimation, but the ratio was higher again for the shelter magazines for which a lower level of over-estimation was found.

The latter finding may be due to a high level of out-of-home readership of the shelter magazines. In the present analysis the total reader pools have been measured overall rather than broken down into their in-home and out-of-home components. Over-claiming

could tend to be confined to in-home reading, whereas out-of-home readership might instead be understated.

THE USE OF MAGAZINE SOURCING QUESTIONS FOR READERSHIP MEASUREMENT AND CLASSIFICATION

The author devised a tentative set of magazine sourcing questions to estimate Average Issue Readerships on an N=2,935 survey in 1984. Respondents were questioned along the following lines:

"In the past seven days, have you *personally* gone to a news-agent, shop, news-stand or anywhere else and purchased any magazines? (If Yes:) Which magazines did you *personally* go and buy since last ...?" This question was repeated in relation to the past 30 days to capture the purchasing of monthlies.

Questions then were asked about the reading of other magazine issues which had come into the home in the past 7-30 days, and separately about out-of-home reading occasions which had occurred in the past 7-30 days. Prompting was by means of a typed list of titles.

The emphasis in these questions was upon the *sourcing actions* - viz, purchase; the pick-up of magazines which had come into the home as the result of purchasing by other family members or by pass-on to the household; and visits to other people's homes, waiting-rooms, offices, and anywhere else where magazines were picked up and read or looked into.

It was not imagined that these questions might overcome the problems reflected in the data presented earlier in this paper. Rather, while expecting much the same effects to be evident, our interest was to see whether the focus on *actions* would moderate the over-claiming effects and reduce the bias in favour of monthlies.

Also, it was recognised that collectively these questions do not

constitute a tight definition of reading. However, our assumption was that the small amount of reading they missed would not create a bias in favour of any publication type.

Responses to these questions (multiple responses counted) have been used to estimate Average Issue Readerships and, in turn, readers per copy. The sourcing questions yielded lower readership (and hence rpc) figures than the syndicated survey, though it is clear that the levels of over-claiming were only partially reduced. The results are presented in Table 3.

TABLE 3
Readers per copy estimates given by magazine sourcing questions (Average Issue Readership divided by circulation; and over-estimation of circulation by the purchase question

Publication category	Syndicated survey rpc	Magazine sourcing circulation rpc	over-est. %
<i>Weeklies</i>			
Women's	4.1	3.5	+ 32
General interest	7.0	3.3	+ 7
<i>Monthlies</i>			
Women's	4.6	4.5	+ 24
Shelter	10.7	7.0	+ 50
Motoring	13.2	10.4	+ 96

Once again, when the rpc figures are divided by the over-estimation factors, the theoretical rpc levels yielded range from 2.6 to 5.3 - virtually identical to some results discussed earlier which were arrived at from Recency data. The theoretical levels taken from these two independent sources have been averaged and appear in Table 4.

An advantage of the sourcing questions is that they provide an alternative basis for estimating the numbers of readers per copy, as shown in Table 4. The total numbers of readers determined by the three sourcing questions collectively, are divided by the numbers of purchasers.

TABLE 4
Theoretical levels of rpc (Average Issue Readership divided by circulation and reduced by over-estimation factors); compared with readers per copy estimates yielded by the magazine sourcing question (total Average Issue Readers divided by number of buyers)

<i>Publication category</i>	<i>Theoretical level rpc</i>	<i>Magazine sourcing rpc</i>
<i>Weeklies</i>		
Women's	2.8	2.7
General interest	4.0	3.9
<i>Monthlies</i>		
Women's	3.1	3.2
Shelter	4.9	4.4
Motoring	4.4	4.8

Table 4 presents two independent sets of results which, by completely different approaches, arrive at very similar numbers of readers per copy. This is strong evidence that the true range of rpc is from about 2.5 to just over 5.0 for the magazines which have been covered by this analysis.

These titles have negligible subscription levels; some other major Australian weekly and monthly magazines having numbers of subscribers have been ignored here because for them the magazine sourcing measures would have been incomplete.

It is concluded that strong evidence has been found that the Recency technique grossly inflates readership

estimates, more so for monthlies than for weeklies, and particularly for certain types of monthlies such as the motoring titles.

Moreover, because the over-estimation of readership is a function of the turnover of readers from one publication cycle to the next (ie the size of the pool of occasional but non-current readers), the error margin is magnified in the calculation of schedule reach.

Table 3 showed that the magazine sourcing questions tested so far only partially reduced the levels of over-claiming and, more disappointingly, have not removed the bias in favour of the monthlies. Nevertheless, the experiments reported here have provided new insights into how survey respondents answer Recency-like questions, and we are left now with a undeniable need to experiment further in search of practical solutions to the problem of gross over-estimation of readership.

The author remains confident that magazine sourcing questions are still the way to go, possibly within a diary format.

Experimentation with magazine sourcing questions has the great advantage of making it easy to determine whether a particular questioning approach is producing results which are 'about right' in absolute terms, and which preserve the true relativities between publication types.

Another benefit of experimentation with magazine sourcing questions is that it yields data on the profiles of buyers, in-home pass-on readers, and out-of-home readers. The value to publishers of such information alone can justify the expense of the experiments, and the magazine sourcing questions can be adapted to conform with the definition of primary readership proposed by Agostini.

REFERENCES

Agostini, J M (1964) 'Primary readership' Thomson Gold Medal winning paper

Ehrenberg, A S C (1972) *Repeat-buying* Amsterdam: North Holland.