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5.1

THE PROFIT-PER-COPY MODEL: MANAGING MAGAZINE TOTAL AUDIENCE FOR MAXIMUM PROFITABILITY

INTRODUCTION

Total audience, as measured by SMRB and MRI, is the primary data used by the buyers of print advertising space to decide on how and which magazines and national newspapers in the US will *share* in their clients' advertising dollars.

Audiences can be affected by the following variables that the publisher can partially control or, at least, influence:

- the editorial product;

- the availability of the publication in public places, a variable that can be affected by using different sources or circulation that:

(1) Achieve greater public place distribution.

(2) Achieve greater public place distribution in locations that are skewed to higher income clientele.

- in-home distribution;

- the presence or absence of television advertising;

- the availability and positioning on newsstands.

Variables impacting audience that the magazine cannot influence include:

- the competition's strategy for in-home and out-of-home distribution;

- the methodology of the survey being used to measure total audience;

- the statistical tolerances, affecting all surveys (the smaller the magazine the greater the tolerance).

This paper proposes a programme for managing total audience by working with the variables under the control of a magazine's management (eg, circulation sources, advertising, editorial content) while maintaining circulation at optimum levels relative to total revenue and profitability. More specifically, this document:

- reviews the background of the problem;

- discusses why attempts to establish a direct link between total audience levels and circulation variables have either never been tried or have failed;

- describes the *profit-per-copy* model, the purpose of which is to maximise the size and quality of the total audience.

BACKGROUND

For the last ten years, Steve Douglas and Dan Mallett have been working on a profit-per-copy model that, for many magazine titles, will allow a circulation department the opportunity to maximise a given publication's audience size or demographic quality as measured by MRI, SMRB, or other audience measurement services.

Observation has shown that major positive or negative swings in circulation level have caused logical changes in audience. Some examples are:

Positive: *Time, US News, People, USA Today* – circulation increases, audience increases;

Negative: *Playboy, Family Circle, Woman's Day* – circulation decreases, audience decreases.

Also, increases in the readers-per-copy figure of magazines are much more difficult to manage because it has been difficult to obtain circulation in the highest readers-per-copy locations at low price. However, some publications have shown that public place *only* distribution can be *forced* and will achieve a high readers-per-copy. Two examples are:

– *Girl Talk* achieved a 10 + reader-per-copy by distributing only to beauty salons;

– *Newsweek On Health* achieved a nine readers-per-copy by placing two issues in doctors and dentists offices.

Other magazines in very competitive classes have shown consistently higher readers-per-copy in the US. Some examples are:

– *Vogue* has consistently produced higher readers-per-copy than *Harper's Bazaar*, with this advantage attributed to a combination of the following:

– the great availability of *Vogue* in public places;

– *Bazaar* is picked up less frequently than *Vogue*;

– *Bazaar* has a name disadvantage in the syndicated services;

– *Vogue* has more total pages than *Bazaar*;

– *Business Week* has maintained a high level of in-office reading, positively affecting the readers-per-copy level, by selling subscriptions to corporations;

– *Newsweek*, has always and still does have a higher readers-per-copy relative to its competitors, but the readers-per-copy figure has dropped or not moved, depending on the service. Perhaps *Time's* sales of low-priced subscriptions to public places, in combination with other Time Inc publications (eg *People*), is the reason *Time* has held readers-per-copy while expanding circulation. Perhaps *Newsweek* has lost as *Time* has gained share of higher RPC locations and audience. The data to determine the share of locations by title will be available in 1989 in the United States from the Public Place Magazine Audit. The PPMA data will be based on information collected by personal visitations to 5,000 public place locations. The Audit is a joint venture between The Douglas Group and Audits and Surveys.

It has been almost impossible to directly link any individual audience changes to a *specific single change* in circulation, advertising or editorial activity. The reason no direct linkage has been established results from the following:

– inappropriate data have been analysed;

– good, but incomplete, data have been analysed;

– data that are difficult and expensive to obtain are necessary to establish the causal relationship;

– some data that have been collected have never been disseminated because it would give a competitive advantage to those who understand total audience at competitive publications.

The primary obstacle to isolating the key variables (ie, doing a comprehensive anlysis/study) necessary to establish the direct link is a lack of

faith that the audience data are 'real' or can be managed profitably, as observed by key clients and media management personnel, including:

- the top management of publications;

- circulation management;

- publishers or advertising management;

- and, worst of all, some magazine researchers.

The lack of faith is caused by:

(a) A lack of knowledge of 'statistical tolerance' - year-to-year changes in audience due to random statistical bounce;

(b) The failure, on the part of US magazine research companies SMRB/MRI, to educate the management of magazines about the effect of statistical tolerance;

(c) The practice of US syndicator's research companies changing methodology without testing;

(d) The practice of publishers to disparage audience numbers even when the numbers are 'good' (publishers frequently try to get the buyer *not* to rely too heavily on these data in order to protect themselves from the possibility of 'poor' numbers in future years);

(e) The tendency of publishing executives to blame methodologies so that they will not have to deal with a potentially larger problem that they might be able to do something about, public place distribution;

(f) The methods used to measure readership are indirect and, as such, must have methodological traits that can influence all magazines or national newspapers studied to a greater or lesser degree. There is great misunderstanding

or ignorance among the users of the data of how those traits affect a given publication;

(g) The failure of publishers, due to complexity or expense, to identify and isolate key public place outlets because of the lack of any guaranteed payback. In the US two new systems of forced public distribution are creating a new opportunity for circulation executives to control the availability of their publication(s) in public places. They are:

- the Whittle organisation which personally places its new magazines in high traffic medical office waiting rooms. The magazines are totally supported by advertisers. The Whittle organisation has sold all available space in these new untried publications for the next two years. They accomplished this by selling directly to the marketing executives of the client and avoiding the media department of the advertising agency and advertiser media people.

- the Waiting Room Subscription Service plans to distribute free copies of participating publications to selected waiting rooms. The copies will be purchased by WRSS from the publisher and the publisher will grant WRSS the right to sell advertising on WRSS cover wrap (similar to the cover on the in-flight publications) that will appear in each waiting room. The Public Place Magazine Audit will also monitor for the advertisers that their copies are available at acceptable levels.

(h) The number of variables relating to the editorial packaging, the circulation source mix, the advertising weight, etc., compound the problem because they are frequently changed or altered *at the same time.*

(i) The effect on audience actually cannot be seen in the audience numbers until 18 – 24 months later, if at all (if the goal is to maximise profits on a quarterly basis then the long term impact of audience is not important to the

manager who will not be there tomorrow); *US News* is a prime example. From the public record, one can learn the publication changed its design, sold the magazine content (without premiums), and altered 'the source of circulation' mix (more TV etc.). The impact on audience numbers did not begin to be apparent until over a year later.

(j) The lack of accurate and complete historical circulation data including:

- pricing;

- renewal rates;

- premiums that have been used;

- packages that have been used for direct mail;

- the mix of circulation sources;

- knowledge of which circulation sources generate public place circulation and readership;

(k) The lack of consistent goals on the part of the circulation and advertising departments:

- the circulation department may be looking for sources to make rate base, whether high or low quality, at a reasonable cost per order;

- other sources may provide a better audience, but advertising directors are reluctant to take responsibility for the circulation director's usage of more expensive sources, and the circulation director gets no credit for increased audience numbers.

Despite these problems, three trends will eventually force publishers to exercise more effective audience management by managing circulations to maximise public place distribution:

- publishing continues to become more competitive. Within publishing, there are a growing number of titles and distribution opportunities which continue to fragment audience.

- advertisers have demonstrated their willingness to support new magazines with strong public place audience potential. Historically they have supported *People* and the *News* magazines with advertising and now advertisers are supporting public place-only magazines.

- the reduction of the media department staffs and the increased reliance on data have led to media decisions increasingly based on absolute audience numbers.

In short, audience management is a major issue and publishers will have to deal with it. The profit-per-copy's process of analysis will help publishers deal with all of the obstacles described previously, and will bring together circulation, ad sales, and editorial management to come to grips with the goal of maximising audience in terms of total profitability (not just circulation profitability, but total profitability, defined as total advertising and circulation revenue minus expenses).

THE PROFIT-PER-COPY MODEL

The circulation department can help maximise the total audience of selected magazines and national newspapers through placement of copies in public places compatible with the type of publication. The editorial products that seem to benefit most from public place distribution have:

- editorial shorts (*People, Newsweek*, etc);

- strong visuals/graphics (*Life, Harper's Bazaar, Architectural Digest*, etc);

- an enticing name and cover presentation (can be helped by advertising its name);

- a positive perception in the consumer's mind;

THE PROFIT-PER-COPY MODEL: MANAGING MAGAZINE TOTAL AUDIENCE FOR MAXIMUM PROFITABILITY

The first step in the process of developing the model is to collect and analyse the following internal data, relating to the publication:

The advertising and public relations programmes targeted at the general public to sell subscriptions, including:

- the timing of the advertising (including the direct mail drops) relative to the survey periods;

- the length of the advertising flight(s);

- the amount of money invested by the competition in advertising;

- the type of time bought (spot, national, run-of-station, etc.);

The circulation strategy for in-home, including:

- sources used;

- pricing;

- renewal rates of households;

- premiums that are being used;

- the amount and type of promotion being done;

The circulation strategy for out-of-home, including:

- sources used;

- existence of a public place programme(s);

- knowledge of the number and types of public places that the publisher wishes to influence;

- pricing and packages used for public place mailings;

- the use of specific agents that produce public place distribution.

Analysis that is most critical is a source of circulation study which identifies the concentration of public places by type within source. Source of circulation studies can provide critical information on how the subscriber disposes of his copy. Of particular importance is whether the subscriber takes the copy to a public place, gives it to a friend or throws it away (Figure 1).

The second step in the process is the collection of the data on the availability of copies in public places. Copies delivered to public places produce more readers than those delivered to the home. If the title is under-represented in the public place (or unavailable) it will never be able to pick up more than two or three readers-per-copy. This type of information will be available in the United States from the Public Place

Figure 1

Profit per copy model

- 211 -
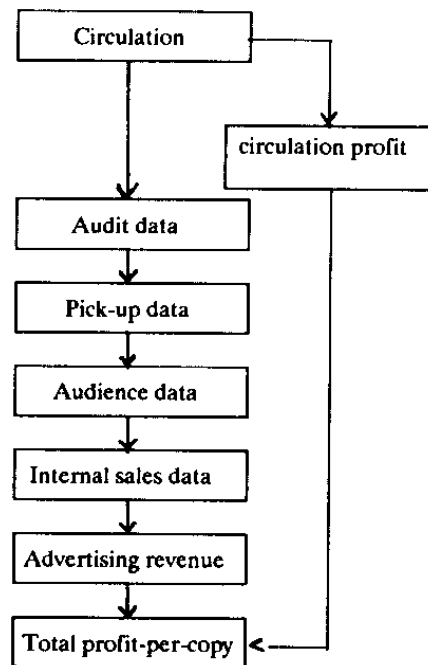
Magazine Audit (Douglas 1983). This audit will measure 5,000 public places by type, volume of visitors, and the income of the clientele.

The third step requires obtaining a measure of the ability of the magazine to compete for pick-up in the competitive arena of the various public places. This type of information is typically obtained from proprietary observation studies. The competition is defined by the titles and total number of the issues available in the public place.

The fourth step requires analysing the first three sets of data, with the data from MRI, SMRB, or other audience studies, to determine which sources produce the largest number of readers, with the defined demographic qualities.

The fifth step in the process is the collection of data on the target audiences utilised by the advertising agencies to select a magazine. This information can be obtained from reviewing call reports or the computer runs used or produced by the sales force, to close the sale or by calls made to the advertising agencies. The advertisers' investment will be attributed to the target audience so that every person in the TA audience (eg 25-54, HHI $35,000 +) will be attributed an equal amount of advertiser investment. This exercise has to be executed for each advertiser. This process is described in more detail in the example that follows.

In the sixth step, once the target audience has been matched to advertising pages and. revenues, an *advertising profit-per-copy* can be generated by evaluating all sources according to their ability to provide the readers that are most valued by the agencies and their clients.

The final step is to combine the *advertising profit-per-copy* with a circulation profit-per-copy (subscription revenue minus cost of acquiring the subscription) to generate a *total profit-per-copy*.

THE ANALYSIS PLAN

Up to this point, this paper has dealt with profit-per-copy in general terms. Now, a simple, specific example will be presented, using hypothetical data.

Management objectives

To identify and make greater use of circulation sources that produce greatest total profit (as opposed to those which produce the greatest circulation department profit);

To provide a comprehensive, objective, analytic framework to maximise profitability and facilitate the development of integrated management objectives.

To develop an ongoing communications channel and working relationship between the circulation and advertising sales groups;

To create a tool for executive various 'what if' scenarios and evaluating alternative total strategies.

Analytical objective

To evaluate each circulation source in terms of total profitability, including:

– direct circulation revenue and expense;
– indirect circulation expense;
– manufacturing, distribution, fulfilment;
– advertising revenue.

For the purposes of this paper a simple version of the model has been created to help the reader work through the profit-per-copy process. Some simplifying assumptions will be described as they arise. Most magazines will use data that publishers already have or can reasonably obtain:

Audience data (eg SMRB/MRI) provide:

- Total audience, in total and by place of reading.

- Audience demographics, in total and by place of reading.

Source of circulation study (a survey of subscribers obtained from different sources) provides:

- Distribution of total copies, by place received by source;

- Demographic characteristics of recipients by source;

- Disposition of in-home copies.

Internal ad sales data provide relative value of different audience segments.

Profit-per-copy model (hypothetical example)

Step 1: Estimating average advertising revenue per copy by source

This example involves the analysis of a hypothetical large weekly magazine. The assumptions are as follows:

- 4 million circulation.

- total audience (national edition) of 24 million.

- total advertising revenue $350 million.

$250 million – national edition.

$100 million – geographic and demographic editions.

The first step is to attribute the total advertising dollars to audience by place of reading for national editions and by copies for geographic and demographic editions.

In the United States, a small but substantial portion of advertising revenue is generated by copies in specific geographic and demographic groupings. Obviously, all advertising revenue produced by these copies should be attributed to them. However, the total audience measurement services cannot determine which reader is reading these specific copies, so the only way to apportion the revenue is on a copy basis.

Geographic/demographic editions

For the geographic and demographic editions, the advertising revenue per copy by edition is calculated, by dividing the total advertising revenue for each edition by the total copies distributed for that edition (Table 2).

Table 2

Ad revenue per copy for geo/demo editions

Edition	Total annual ad revenue (000)	Rate base (000)	Ad revenue per copy*
L	$40,000	400	$1.92
M	$10,000	600	$0.32
*	*	*	*
*	*	*	*
*	*	*	*
Total geo/demo editions	$		.

* Assuming 52 issues per year

THE PROFIT-PER-COPY MODEL: MANAGING MAGAZINE TOTAL AUDIENCE FOR MAXIMUM PROFITABILITY

National edition

National editions are more complicated to analyse because total audience by place of reading is of primary importance.

The approach in this area is to divide the total audience into segments defined by their relative value to advertisers and agencies, to establish an advertising revenue per reader value for each audience segment, based on the advertising market place.

This example (Table 3) involving a weekly magazine that has 24 million readers per issue, and an annual national edition producing advertising revenues of $250 million, yields about 20 cents in advertising revenue per reader per issue ($250 million in annual revenue, divided by 24 million readers per issue, divided by 52 issues per year).

Table 3

National edition ad revenue per reader, by reader segment

Example: 24,000,000 readers each issue
             $250,000,000 yearly national edition ad revenue

Average national edition
Ad revenue per reader = $0.20 = $\dfrac{\$250,000,000}{52 \times 24,000,000}$

Household income	Audience size* (000)	Ad revenue per reader
< $25,000	6,500	$0.05
$25-$50,000	8,500	$0.15
$50,000 +	9,000	$0.35
Total	24,000	$0.20

* From audience data (eg SMRB/MRI)

There are a number of ways audience segments might be defined, depending on the advertiser marketplace the magazine serves. In the US, for most major magazines, advertising pages are bought and sold based on audiences as measured by MRI and SMRB. Here, three groups are analysed, defined by household income – under $25,000, $25-$50,000, and $50,000 +.

Ultimately it is up to the publisher (or ad sales management) to decide the parameters to utilise. However, there are several types of analyses that can aid the making this decision. For example, sales call reports usually show the target audience group each advertiser is trying to reach. Weighting these total audience target groups by pages bought establishes the relative advertiser value of different reader segments.

For this hypothetical case, given the value of 20 cents for the average reader, readers in the lowest income group have been assigned a value of only 5 cents, and readers in the highest income group have assigned a value of 35 cents.

Different magazines – depending on audience profile and the advertiser marketplace served – could have greater or lesser advertiser revenue skew by reader income level.

We now combine these advertising revenue per reader values with audience data and source of circulation data, to arrive at:

– national edition advertising revenue per copy, for copies served to each public place;

– national edition advertising revenue per copy, for copies served in-home to each household income group.

Table 4 shows the national edition advertising revenue per copy for copies served to public places. We are now ready to put all the pieces together, to get the total advertising revenue per copy for each source. Table 5 shows an

Table 4

National editional revenue per copy for public places

Public place copies	Total	Office recep	Medical	Hair care
Copies per issue (000)*	4,000	480	200	120
Total audience:				
Total audience (000)	24,000	3,000	3,000	1,200
Readers-per-copy	6.0	6.3	15.0	10.0
HH income 0-$25k:				
Audience (000)**	6,500	600	1,000	400
Readers-per-copy	1.6	1.2	5.0	3.3
Ad value per reader***	$0.05	$0.05	$0.05	$0.05
Ad value per copy	$0.08	$0.06	$0.25	$0.17
HH income $25-50k:				
Audience (000)**	8,500	1,200	1,000	600
Readers-per-copy	2.1	2.5	5.0	5.0
Ad value per reader***	$0.15	$0.15	$0.15	$0.15
Ad value per copy	$0.32	$0.38	$0.75	$0.75
HH income $50k + :				
Audience (000)**	9,000	1,200	1,000	200
Readers-per-copy	2.3	2.5	5.0	1.7
Ad value per reader***	$0.35	$0.35	$0.35	$0.35
Ad value per copy	$0.80	$0.88	$1.75	$0.50
Total ad value per copy	$1.20	$1.32	$2.75	$1.50

*   Source of circulation study
**   Audience data (eg SMRB/MRI)
***   From Table 3

5.1   THE PROFIT-PER-COPY MODEL: MANAGING MAGAZINE TOTAL AUDIENCE FOR MAXIMUM PROFITABILITY

Table 5

Source A

Ad revenue component	Ad revenue per copy served Edition/Component	New business		Conversion renewals		Later renewals	
		% of copies**	Ad revenue per copy***	% of copies	Ad revenue per copy***	% of copies	Ad revenue of per copy***
Geo/demo edition							
Edition L	$1.92	6	$0.12	12	$0.23	16	$0.31
Edition M	$0.32	11	$0.04	12	$0.04	12	$0.04
National edition							
Home – HH income							
$10-25K	$0.25	30	$0.07	16	$0.04	12	$0.03
$25-50K	$0.75	25	$0.19	24	$0.18	23	$0.17
$50K+	$1.50	25	$0.38	38	$0.57	43	$0.65
Business office	$1.32	10	$0.13	12	$0.16	14	$0.18
Doctor/dentist	$2.75	4	$0.11	4	$0.11	5	$0.14
Beauty/barber	$1.50	3	$0.05	3	$0.05	3	$0.05
Source Total		100	$1.16	100	$1.46	100	$1.63

** Audience data
*** See Table 3

Assumptions:

Each copy served in each of the geo/demo editions or national edition components identified in the left-most column produces the same ad revenue, regardless of source. For example:

– each copy served geo/demo edition L produces $1.92 in ad revenue, regardless of source.

– each copy served to a home with household income $0-25K produces $0.25 in national edition ad revenue, regardless of source.

– each copy sent to a medical office produces $2.75 in national edition ad revenue, regardless of source.

– differences in total ad revenue per copy by source in this framework are then due entirely and only to each source's unique profile in terms of the proportion of copies served to each of these edition/component classes.

example for one source. Data sources, calculations, and assumptions are described above.

Data sources/calculation methods

First, under 'ad revenue per copy served edition' the geographic and demographic copies are broken out by edition. The national edition is broke out by household income and public place locations (The values come from preceding tables). The percentage of copies is derived from the source of circulation study. This study provides a profile of subscriber demographics and the concentration of distribution to public places and the individual in-home subscribers disposition of copies by source of subscription acquisition. In the source of circulation study, copies served via the source are divided into three subclasses.

– original new business orders;

– conversion renewal order (first time renewals);

– renewal orders (second time renewals).

Within each subclass, the sum of geographic and demographic edition copies typically will not add to 100% because some copies may not qualify for any of these editions, while others may qualify for multiple editions. However the sum of the national edition percentages will be 100%.

'Ad revenue per copy' is the product of 'Ad revenue per copy served edition', and 'percentage of copies'. For example, if each copy served Edition L produces $1.92 in advertising revenue and 6% of the copies served new business orders in Source A qualify for Edition L, then each copy served via new business orders in Source A will produce $0.12 ($1.92 x 6%) in Edition L advertising revenue.

The exercise started several pages back has now been completed. An estimate of the average total advertising revenue generated per copy for each circulation source has been determined (separately for original new business orders and ensuing renewal orders from each source).

It is now possible to append these data to any publishing or circulation model to provide a complete picture of the total value of each source. Table 6 shows a prototype table for one example source. It can be seen from this table that the probability rank order of sources changes when advertising revenue is explicitly included in circulation planning and source evaluation.

Sources that once looked very profitable from a pure circulation perspective may now look much worse (because they do not produce the kind of audience that generates high advertising revenue), while sources that once seemed very undesirable from a pure circulation perspective may suddenly look profitable (because they do produce the kind of audience that generates high ad revenues).

SUMMARY

This paper proposes a process for managing total audience. At the core of the process is a model that helps identify the economic value of managing circulation to maximise total audience level and demographic quality and to maintain the maximum possible circulation profit-per-copy (lowest cost of acquisition cost) while maximising total profit-per-copy.

The analytic approach shown here is just a first for each magazine that is examined, and the associated assumptions require closer examination. Regardless of specific model results, however, the *process* of applying this kind of modeling approach provides important insights. When applied on a title-by-title basis,

THE PROFIT-PER-COPY MODEL: MANAGING MAGAZINE TOTAL AUDIENCE FOR MAXIMUM PROFITABILITY

Table 6

Profit-per-copy model – prototype table

Magazine: XYZ
Source: A

Assuming 1,000 net new business orders on day one

Copies served:	Year 1	Year 2	Year 3	Year 4 +	Lifetime totals
New business copies	37,000	3,000	0	0	40,000
Conv. copies (1st renewal)	4,500	12,000	2,500	1,000	20,000
Renewal copies (2 +)	0	2,000	6,000	10,500	18,500
Total copies	41,500	17,000	8,500	11,500	78,500

Direct circulation

	Year 1	Year 2	Year 3	Year 4 +	Lifetime totals
Total profit (is) $	(8,670)	3,691	2,877	3,691	1,859
Profit-per-copy served $	(0.200)	0.217	0.338	0.344	0.024

Indirect circulation

	Year 1	Year 2	Year 3	Year 4 +	Lifetime totals
Total expense (is) $	3,732	1,387	629	826	6,574
Expense per copy served $	0.090	0.032	0.074	0.072	0.084

Mfg/dist/fulfil

	Year 1	Year 2	Year 3	Year 4 +	Lifetime totals
Total expense (is) $	25,405	10,690	5,475	7,455	49,025
Expense per copy served $	0.612	0.629	0.544	0.648	0.625

Ad sales

	Year 1	Year 2	Year 3	Year 4 +	Lifetime totals
Total revenue (is) $	40,395	22,230	13,765	19,600	95,990
Revenue per copy $	0.973	1,308	1.619	1.704	1.223

Grand total

	Year 1	Year 2	Year 3	Year 4 +	Lifetime totals
Total profit (is) $	2,588	13,844	10,538	15,010	42,160
Profit-per-copy $	0.062	0.814	1.240	1.305	0.537

it forces the circulation manager, the advertising sales director and upper management to concentrate attention on total audience measurement and impact of those numbers on total profitability.

This process allows the management to have a greater degree of control over the audience measurement results, with these source numbers having less control over them

When this model is adopted, it will revolutionise circulation source management, and the targeting of particular segments.

Reference

Douglas, Stephen A (1983). How copies produce audience: the dynamic model. Montreal Proceedings.