Trust and the Value of Advertising: A Test of the Influence Model

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Introduction

The value of advertising is based primarily on the number of potential customers that it reaches – the eyeball test. But quantity is not the only concern. Some eyeballs are worth more than others, depending on the product being advertised, and so buyers look at audience research that shows readership or viewership within targeted democratic segments.

A less obvious factor in the value of advertising is the influence of the medium that carries it. The influence model was used as a theoretical justification for quality in journalism by at least one major newspaper company, Knight Ridder, in the 1970s.[1] Hal Jurgensmeyer (1931-1995), a business-side vice president, argued that a newspaper's main product is influence. The paper produces two kinds of influence: societal influence, which is not for sale, and commercial influence, which is for sale. But the former enhances the latter. If this is true, an ad should be worth more if the editorial matter with which it is packaged is trustworthy. For an extreme example, consider the supermarket tabloids. The few ads they do carry seem to be directed at people who will believe anything – for example, that the advertiser can predict your future or sell you a pill that will cause you to lose weight while you sleep.[2]

Operationalizing influence

If influence is a factor for an advertiser to consider when choosing a medium, it is one that has to be judged mostly on intuition. This paper aims at moving beyond the intuitive level to a more sensitive measure of a medium's influence.

A potential indicator of newspaper influence can be found in the literature on credibility. The American Society of Newspaper Editors became interested in this topic and commissioned Kristin McGrath of MORI Research to do a national

survey that was published in 1985. "Three-fourths of all adults have some problem with the credibility of the media," she wrote, "and they question newspapers just as much as they question television."[3]

A contrasting report was issued early the following year by the Times Mirror newspaper based on field work by The Gallup Organization. "If credibility means believability, there is no credibility crisis," said this report, written by Andrew Kohut and Michael Robinson. "The vast majority of the citizenry thinks the major news organizations are believable."[4]

The varying question forms used by the two organizations obscure close comparison, but 84% in the Times Mirror study gave a positive rating to their local daily newspaper on a scale where "4 means you can believe all or almost all of what they say, and 1 means you can believe almost nothing of what they say."[5] The ASNE study used a 5-point scale, and 85% gave either a positive or neutral rating on accuracy of the newspaper with which they were the most familiar.

In 1998, Christine Urban, also working for ASNE, proposed six major sources of low trust. Number one on the list: "The public sees too many factual errors and spelling or grammatical mistakes in newspapers."

Two purely descriptive studies were published in 2001. News credibility was one of a very broad array of social indicators asked about in 1999 by the Knight Foundation which found that 67 percent believe "almost all or most" of what their local daily newspaper tells them.[6] A similar result was published at the same time by American Journalism Review, based on fieldwork in 2000 funded by the Ford Foundation. This study reported that 65 percent believe all or most of what they read in the local paper.

The advantage of the Knight Foundation study is that it includes independent samples of 500 in each of the 26 communities where John S. and James L. Knight operated newspapers in their lifetimes.[7] The question it asked is, "Please rate how much you think you can believe each of the following news organizations I describe. First, the local daily newspaper you are most familiar with. Would you say you believe almost all of what it says, most of what it says, only some, or almost nothing of what it says?" For cross-market comparison of newspaper credibility, the percent who said they believed almost all of what the paper says makes a convenient benchmark.

Because the question is not specific to any particular newspaper, it measures newspaper credibility in the market as a whole. Therefore, analysis was limited to those markets that met three tests:

1. Market definition in the Knight Foundation survey was based on a

whole county or combination of counties.[8]

2. Newspaper advertising in the county is dominated by a single newspaper or combination under joint ownership or management.

3. The circulation of the dominant newspaper is verified by the Audit Bureau of Circulations and does not exceed 300,000.[9]

In the case of Fort Wayne, which has two newspapers with a joint operating agency, we used the combination advertising and circulation figures. (See Table 1 for a list of papers and their home-county penetration.)

The second decision was made after exploratory analysis showed that variance in advertising rates is much greater for very large markets, which are susceptible to a greater variety of influences, than for smaller ones. Whether this is strictly a function of their size or due to peculiar circumstances in each large market, we cannot be sure.

These decisions left us with a convenience sample of 21 newspapers whose circulation ranged from 289,814 (San Jose Mercury) to 16,038 (Aberdeen American News). Those eliminated by virtue of size were The Detroit Free Press, The Philadelphia Inquirer, and The Miami Herald.

In addition, The Union-Recorder of Milledgeville, Ga., was eliminated because its circulation is not verified by ABC. The two papers left out because the Knight Foundation survey did include whole counties were the Press-Telegram of Long Beach, Calif., and the Post-Tribune of Gary, Ind.

The Knight Foundation surveys, with a minimum sample size of 500, were conducted in 1999. In March 2002, journalism students at the University of North Carolina at Chapel Hill replicated its media credibility questions in the three Research Triangle counties, Durham, Orange, and Wake. In Wake and Durham, the sample size was judged large enough (322 and 129) to include with the Knight data. That gives us 23 cases to use in our quest for the effect of credibility on advertising rates.

Analysis

The source for published advertising rates was the monthly report of Standard Rate and Data Service for April 2002.[10] The weekday rate per Standard Advertising Unit (SAU) was used if reported, otherwise the column-inch rate. The range was from $352 for the Ft. Lauderdale Sun-Sentinel to $29 for the Aberdeen American News.

The obvious source for such wide variation in published advertising rates is circulation size. It alone accounts for 88 percent of the variance in posted ad prices ($r = .939$).

Some of the remaining variance can be explained by the wealth in the market, a value estimated by SRDS and reported at the county

level as Effective Buying Income (EBI). Home county circulation penetration is also a factor. A newspaper whose market is compact and contiguous is more likely to be useful to local retail advertisers, and a relatively high home county penetration distinguishes such a market from one whose circulation is thinly spread. The range for home county penetration was from 30 percent (South Florida Sun-Sentinel) to 64 percent (The Aberdeen American News).

We recognize that published rates may be quite different from rates actually paid.. Newspapers are more complicated than they look, and there are many deviations from the published rate based on various combinations of zoning, length of contract, position in the paper, and bargaining power. The published rate is an asking price. We only start from there.

The hypothesis that citizen trust, as measured by the Knight Foundation question, can predict published advertising rates, was tested with a multiple regression model, entering the independent variables in the following order: circulation, home-county penetration, EBI, and credibility (defined as the percent who believe almost all of what they read in the paper.) As expected, circulation was by far the strongest predictor with 88 percent of the variance explained.

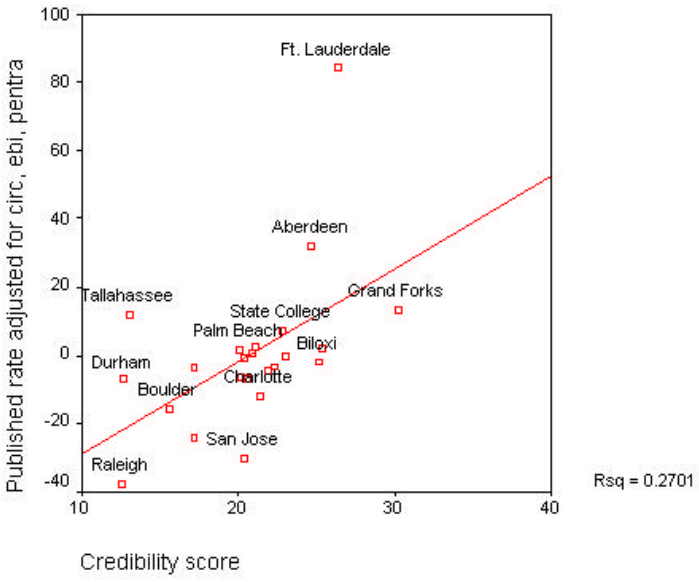
Variable	**R^2**	**Adj. R^2**	**Significance of F Change**
Circulation	.882	.877	.000
Penetration	.897	.887	.108
EBI	.916	.903	.053
Credibility	.942	.930	.010

The hypothesis is confirmed. Credibility explains an additional 2.8 percent of the variance after circulation, home county penetration, and EBI have been accounted for.

For a better visualization of what is happening the regression was rerun, leaving out the credibility variable, and saving the unstandardized residuals which represent the variability in advertising rates after adjustment for circulation, home county penetration, and EBI. This adjusted SAU ranged from 84 in the case of the Ft. Lauderdale Sun-Sentinal to –38 for the Raleigh News & Observer. In other words, the Sun-Sentinel asks $84 more per SAU than its circulation, home county penetration and EBI would justify while the News & Observer asks $37 less.

The scatterplot below shows the effect of credibility on adjusted ad rates and identifies the main outliers.

Figure 1



Credibility explains 27 percent of the residual variance in published advertising rates. Its effect is statistically significant at the .011 level.

The slope of the line is –56.25 + 2.727 * C where C is credibility expressed as the percent of adults in each market who say they believe almost all of what they find in the paper they read most often.

At a meeting in New York City in 1985 to discuss that year's ASNE credibility study, David Weaver suggested to the first author a need to find out "how much credibility is worth and how much it costs to get it." We now have a tentative answer to the first question. Each percentage point increase in the proportion who believe what they find in the paper is associated with a $2.73 cent increase in published advertising rates. Based on the mean ad rate in this group of 23 newspapers of $103.75, this result suggests that each one-point improvement in credibility is worth a 2.6 percent increase in a newspaper's asking price for advertising..

The other half of David Weaver's question – How much does credibility cost? – must await other research.

Weaknesses and further research

The chief weakness of this research is that we don't know what published advertising rates mean in terms of advertising revenue. However, we do know the mean actual price for advertising for the 17 Knight Ridder papers in the sample because the company's executives were interested and kind enough to share that information.[11] Actual price is highly correlated with published price ($r = .951$), but that doesn't mean a lot because it is the variance after circulation is controlled that interests us. Here the correlation is still positive. When published rate and actual rate are expressed as dollars per thousand circulation, they correlate at .774 ($p < .0002$).

While that improves confidence in our validity, the next step does not. When the four-variable

regression is run with the 18 Knight Ridder papers and actual ad price as dependent, nothing has predictive power except circulation. All of the interesting effects, including home county penetration, effective buying income, and credibility simply vanish.

Two possible explanations seem obvious. 1. Posted prices are useless as a surrogate for actual prices. 2. The price/credibility effect is driven by the five non KR papers in the sample. The first explanation requires further research. The second can be checked by running the original regression with only Knight Ridder newspapers in the sample and published rates as dependent.

We did that, and the credibility effect went away (beta = -.003, p = .949). Running it again with the five non-Knight papers, it magically appears. A scatterplot like the one in Figure 1, shows Raleigh, Durham, Boulder, Ft. Lauderdale and Palm Beach arrayed in a line so straight that the r-squared is .84.

There is more bad news. Credibility as measured in the Knight Foundation surveys is unstable. It varies from one survey to another. After replication three years later, county-level credibility in 1999 explained only 19 percent of the variance in 2002. We tried predicting published ad rates in 2002 from the 1999 survey in the belief that credibility is stable and its effects slow to emerge or change. But ad rates would have to change considerably for a 2002-2005 replication to be possible. We are not optimistic, and we wish the question could be approached with a multi-item measure of newspaper credibility.

With more replications of the Knight Foundation survey, a longer time series might make it easier to detect a credibility effect. The phenomenon, assuming it is real, surfaced briefly and seductively in our data set, but a replication could be as elusive as Henry David Thoreau's lost turtle dove, which he sometimes thought he saw just before it disappeared behind a cloud. With a wistfulness akin to Thoreau's, we implore our peers to be on the watch for it.

Table 1

City	ABC 2000 circulation	Home county penetration	EBI ($000,000)	Credibility score	Published SAU rate
San Jose	289814	40	47115	20.4	243
Ft. Lauderdale	257882	30	33618	26.3	352
Charlotte	245239	50	29077	21.4	221
St. Paul	200408	45	65336	20.4	145
Palm Beach	171619	34	31034	20.1	172
Raleigh	160675	41	15283	12.5	131
Akron	143050	47	13035	17.1	120
Columbia	119837	41	9411	21.9	126
Lexington	114275	48	8921	21.1	119
Ft. Wayne	107471	62	9327	20.9	91
Wichita	88973	39	10193	17.1	94
Macon	69076	49	4575	20.2	64
Durham	51316	39	3342	12.6	58
Tallahassee	51305	43	5059	13.0	70
Duluth	50589	40	3694	23.0	63
Biloxi	49489	48	5715	25.1	47
Columbus	48883	44	3921	25.3	58
Myrtle Beach	45443	51	3210	20.6	36
Bradenton	42076	39	12924	22.3	40
Grand Forks	34439	59	1550	30.2	36
Boulder	33119	29	7408	15.5	37
State College	24969	48	2159	22.8	33
Aberdeen	16038	64	705	24.6	29

References

[1] Philip Meyer, *Ethical Journalism: a Guide for Students, Practitioners and Consumers*, University Press of America, 1987, p. 38.

[2] Meyer, *Ethical Journalism*, p. 39.

[3] *Newspaper Credibility: Building Reader Trust, a National Study Commissioned by the American Society of Newspaper Editors.* MORI Research, Inc., Minneapolis, April 1985.

[4] *The People & the Press: A Times Mirror Investigation of Public Attitudes Toward the News Media Conducted by The Gallup Organization.* Times Mirror, January 1986.

[5] *The People & the Press*, p. 20.

[6] *Listening and Learning: Community Indicator Profiles of the Knight Foundation Communities and the Nation*, Miami: Knight Foundation, 2001.

[7] The John S. and James L. Knight Foundation promotes excellence in journalism worldwide and invests in the vitality of 26 U.S. communities where the communications company founded by the Knight brothers published newspapers. The Foundation is wholly separate from and independent of those newspapers.

[8] This eliminated Gary, Indiana, and Long Beach, California, where the survey areas were defined by zip codes. Two markets, Miami, Fla., and Columbia, S.C., were defined by pairs of counties. In the Miami case, we split them and examined Miami-Dade and Broward Counties separately. In South Carolina, we treated Lexington and Richland Counties as a single unit.

[9] Baldwin County, Ga ., was eliminated because its main paper's circulation is not audited. Markets eliminated by virtue of their size were Philadelphia, Detroit and Miami. The source for circulation data was the electronic version of County Penetration Reports, Spring 2000. Audit Bureau of Circulations, Chicago, Ill. Most of the audits reported there were conducted in 1999.

[10] SRDS Newspaper Advertising Source, 84:4, Des Plaines, Ill., April 2002.

[11] Our thanks to Steve Rossi, President / Newspaper Division, and Virginia Dodge Fielder, Vice President / Research.