When a major national news magazine decided to advertise on television to increase circulation, market researchers had to design research procedures that would assess the effectiveness of various advertising options. The system was designed around the toll-free telephone number given in the advertisement, with the receiving operator recording the time of day the order was received, and where the customer had seen the subscription offer. A second database contained time of day, program environment, and whether the program was local, syndicated, or network. The original application of the system considered the variables of creative execution of the commercial, the length of the subscription term, a bonus gift for incentive, and the effectiveness of other promotional efforts. The analysis of a ten-week campaign showed that the late morning to prime time period was the best daytime advertising period, and sports programs and movies were the best advertising environments. The smaller though less expensive markets were not cost effective, as were the larger initially more costly ones. The strategy indicated by the system, a fast-paced, hard-hitting commercial for the longer subscription period, was the one adopted by the magazine for its campaign. (HTH)
Market Research and Magazine Circulation Promotion:
A Case Study

by

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Background and Problem

This is not so much a research paper as a paper about research. In order for today's major magazines to survive and thrive in an increasingly competitive environment, it is essential that the business of the magazine — that is, circulation and generation of advertising revenue — be carried out with all the tools and sophistication of modern marketing. One of the most important of these tools is market research and this paper is a case study of one somewhat unique application of research to the marketing of magazine subscriptions. Thus, to those who teach magazine management, this report may at least have pedagogical value.

Although I teach mass communication-related courses, the project to be described grows out of consulting work I do with a Chicago-based market research firm. The client, whose specific identity must remain confidential, is one of the most widely-circulated magazines in the United States.

The work was done a few years ago when the magazine decided to move heavily into television advertising to promote new subscription sales. Since the cost-per-subscription for acquiring each new subscription is a critical figure in determining overall profitability, there were clear concerns about the cost effectiveness of using television promotion. The problem we were presented with,
In order to provide all the capabilities desired, the fulfillment service's data base had to be supplemented with a second data base. The magazine's advertising agency placed the television commercial in local spot time through station representatives, often making block purchases at the lowest rates. In one or two weeks after spots run, the rep returns reports to the agency showing the times the spot was seen. We coordinated this time-and-date information with each station's program schedule and entered all this as our second computer data base, along with the dollar cost for each spot run, (prorated, in the case of block purchases).

The purpose of this second data base should be obvious. Since we know from the fulfillment data base when the subscription order was received, and usually which television channel, if any, was the source of information about the subscription offer, most sales can be 'tagged' to a specific run of a specific spot on a specific channel. Let me not mislead you: this is by no means a perfect match in reality. However, experience indicates that most people who are going to respond to a television commercial be calling an 800-number, do so within about 15 minutes of seeing the commercial. In our analysis, we were a little more liberal, and tagged a sale to a spot if it ran on the appropriate station within one hour prior to the subscription call in. Clearly, some people write down the number and call at a later, more convenient time; these sales will usually not be tagged to a particular spot, or more rarely, may be tagged to the incorrect spot.
then, was to design research procedures which could be used as a management tool in assessing the effectiveness of television advertising for generating new subscriptions.

The solution we created involved the integration of two computer data bases and permitted the examination of two kinds of problems:

1) the selection, through market testing, of alternative creative and/or promotional strategies; and

2) the identification of the most cost efficient media-buying choices.

How It Worked

The system which was designed relied on the basic call-to-action device which the magazine planned to use in all of its television commercials -- that is, the familiar inward-WATS telephone number that the interested consumer could call in order to place a subscription order. At the other end of the line, an operator took the order and entered it directly on an interactive computer terminal. The operator also tried to interest the consumer in a longer-term subscription than was being promoted. In addition to entering the basic subscription data, the operator inquired as to where the consumer had seen the subscription offer and the system automatically recorded the time-of-day the order was received.
Sales that are not tagged can be distributed among the available spots in proportion to the tagged sales. In our initial trials, we found we were able to tag anywhere from 20% to about 70% of sales; subsequent improvements could increase that success rate to about 60% to 85%. Again, the system is not perfect, but it provides far more information about the performance of television commercials than most sellers can gather.

By virtue of this tagging process, the system generates a table similar to the model shown in Figure 1. The table will show the number of times a spot was run, the number of subscriptions generated by those spots (subscription volume), the dollar volume that those subscriptions represent, the dollar cost invested to acquire each dollar of this new subscription business. All of these figures are broken down by:

1) the daypart during which the spots were run; time-of-day is expressed in local viewing time for the station and prime time is defined differently for different time zones and for Sunday versus other days of the week;

2) the program environment during which the spots were run; and

3) the source of the program material — whether local, syndicated, or network.

Clearly, all of this is designed to help a media buyer determine which times of day and types of programs are the most cost efficient. Furthermore, tables of the sort shown in Figure 1 can be generated.
for any calendar period and for any selection of markets. More on this in a moment.

A second major type of table the system generates is shown in Figure II. To generate this table, the manager specifies a criterion value, which is the highest dollar amount that the magazine can afford to invest to acquire a new subscription. The tagged sales data allows a cost-per-subscription figure to be generated for each spot run on a station. By comparing this with the criterion value, the number of profitable and unprofitable runs can be determined. The table shows these two numbers for each station. It also reports the total dollars spent buying time from the station and the total dollar volume of business generated by that time purchase, so that station performance can be examined in terms of overall return on investment. Clearly, the information in this table is designed to help the media buyer determine which particular stations are performing best, in order to maximize the efficiency of the buy. Again, this table can be repeated for various calendar periods and for various selections of markets or stations, to coincide with the base for tables of the first kind.

In essence, that is the model for this system. Obviously, this could be applied to any situation where television advertising is combined with inward-WAMS service. But the unique nature of the subscription fulfillment service makes this particularly easy to accomplish for many large magazines; and further, the unusually
narrow profit margin in which magazine subscription sales operate makes the system of special economic importance to the marketing of magazines.

An Application

To illustrate how the system aids media buying and the selection of promotional strategy, I would like to briefly describe the original application for our client magazine and give a hint of some of the results. Again, the proprietary nature of the data prohibits too much detail.

The initial need that our client faced was to select the best possible approach to promoting subscriptions from a series of pre-determined possibilities. There were four basic variables that were of concern:

1) Creative execution of the commercial. For the main body of the commercial, two different creative strategies had been produced — one a very up-tempo, hard-hitting approach; the other more relaxed and earthy.

2) Subscription term to be offered. The client wondered if an on-air offer of a shorter term with its concomitant lower price would out-pull a longer term offer. In either case, the actual per-copy price would remain the same.

3) Which incentive to use. The client planned to offer
a premium item as a "free gift" to those responding to the offer. Two different premium items, of about the same cost, were being considered, and the client wanted to know which was more likely to be the best incentive. The client was also interested to know if the presence of an incentive would make a substantial difference in response rate.

4) Other media. The client wished to know whether the presence of other promotional efforts would improve the effectiveness of the television campaign. In particular, direct mail was considered for use as a supportive vehicle. All possible combinations of the various elements for all four of these variables would yield an "experimental" design of 24 cells. This was clearly impractical, especially since it was also desired to include geographic diversity within each of the "cells," or panels of test markets. A total of eight such panels were settled on: four of these would receive creative execution A, and four would receive creative B; four would receive the short-term offer, four would hear the long-term offer; three would be offered premium #1, three would be offered premium #2, and two would be offered no premium; finally, direct mail support would be placed into the markets on two of the panels, while the other markets would be kept as uncontaminated as possible.
As has been mentioned, each panel was set up with some geographic diversity in mind. Each of the eight panels included four or five test markets, and in each market one or two television stations were chosen for the test flights of spots. In all, 37 cities and 47 stations were involved in the test. The spots were assembled to create the various required versions and then distributed to the appropriate stations. The campaign was scheduled to run for a four week test, but due to staggered starts for the various panels, the subscription fulfillment data covered a period of seven weeks total. As an indication of the scope of the test, in one typical week of the experiment, spots were run a total of 1,862 times and telephone sales in the test markets that week hit 22,920 subscriptions.

At the end of seven weeks (or, more accurately 10 weeks, since the station rep information had to be included), we computed one table of the form shown in Figure I for each of the eight market panels for each week of the test and an additional table which summarized the full run of the campaign in that panel. We also computed tables of the form shown in Figure II for each station in each test panel in each week of the test, and a similar set of tables for the end-of-campaign summary.

A great deal of information which would help the media buyer was gained from these tests. For example, spots run from late morning up to the start of prime time tended to out-perform
spots in other dayparts by substantial margins. The appeal of
the client’s magazine may be skewed slightly toward males, but
the tests indicate that television with inward-WINS may be a
particularly effective way to attract the male subscriber; this
assertion is based on the fact that sports programming was
consistently the most productive environment for our spots.
Other good environments tended to be movies, general entertainment
programs, and (surprisingly) cartoons and kids programming.
Although the client’s magazine is informational in nature, spots
placed in informational programming did not perform particularly
well. These were a few of the more salient findings which tended
to be consistent across all test market panels; there were other
results that were clearly idiosyncratic to particular creative and
promotional strategies.

When looking at individual station performances, it became
fairly clear that spots run on stations in markets below about
the 30th market tended not to produce enough revenue to justify
their cost, despite the lower time charges in these smaller
markets. While the client did not completely eliminate these
markets in later time buying, they were substantially de-emphasized.
It was also clear that some stations in larger markets returned
handsome results and others barely paid for their investment. Again,
later time buying decisions were influenced by these facts, and
on-going use of the analysis system would allow continuous fine
tuning of station selection. It was evident that paying higher
rates on some stations in order to buy particular time slots would be justified, while buying other stations at block run-of-the-air rates would be more cost efficient. Finally, the use of direct mail as a supportive vehicle improved the performance of a test panel, but probably not enough to justify its added cost.

So much for the assistance in media buying which this system provides the marketing managers of the client magazine. What about the assistance in selecting a creative and promotional strategy? Fortunately, there was no contest here. Regardless of all the other variations I've just been discussing, two of the eight panels clearly out-performed the others. In both of those panels, potential subscribers saw Creative Execution A with a longer-term subscription offer and incentive premium #2. As a result, that was the strategy the client adopted when the campaign went national, and that was the strategy which the magazine stayed with for over two and a half years, running several two- and three-week flights per year.

There can be little doubt that the aggressive use of television campaigning coupled with the market research and analysis system described here allowed this magazine to add hundreds of thousands of new subscribers in a well-monitored environment which assured that the subscribers were added at very low cost. It may be gratuitous to mention this, but we often forget: magazines are consumer products and the wise business manager of a magazine will employ all the appropriate methods of modern marketing -- including market research -- to increase the magazine's circulation. The present case study is merely one illustration of the potential success this approach can generate.
**Figure I -- Format for table analyzing subscription sales received by telephone in response to television commercials presented in varying on-air settings.**

<table>
<thead>
<tr>
<th># of spot runs</th>
<th>sub. vol.</th>
<th>cost per sub</th>
<th>$ volume</th>
<th>cost per $ volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>All telephone sales</td>
<td>77</td>
<td>2258</td>
<td>8.95</td>
<td>40583.92</td>
</tr>
<tr>
<td>Sales not tagged</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sales tagged</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>By Daypart</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6-7:59 AM</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8-9:59 AM</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10-12:59 PM</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-3:59 PM</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4-Prime</td>
<td>2</td>
<td>6</td>
<td>100.00</td>
<td>105.85</td>
</tr>
<tr>
<td>Post Prime-5:59 A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>By Environment, Format</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>News/PA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Games/Quiz</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Talk/Variety</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Movies</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gen. Entertainment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sports</td>
<td>2</td>
<td>47</td>
<td>5.37</td>
<td>863.89</td>
</tr>
<tr>
<td>Cartoon/Kids</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nature</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Farm</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Misc, Unknown</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Source</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Syndicated</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Network</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(Model displays three representative rows of figures from one panel in the promotion strategy test, for one week of the test. In practice, all rows are completed.)
Figure II -- Format for table analyzing performance of individual broadcasting stations.

<table>
<thead>
<tr>
<th>Station</th>
<th># of spots runs</th>
<th># profitable runs</th>
<th># unprofitable runs</th>
<th>Time Charges</th>
<th>Total $ Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>City X, Ch 5</td>
<td>14</td>
<td>9</td>
<td>5</td>
<td>2020.00</td>
<td>7173.89</td>
</tr>
<tr>
<td>City Y, Ch 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

etc.

(Model displays one representative row of figures for one station during one week of the promotion test.)