DECIDING ON THE ADVERTISING APPEAL WITH THE USE OF A CONSUMER ATTITUDE-BEHAVIOR MODEL*

By

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The problem of determining advertising appeal is known in the advertising research and practice circles by many names, such as, "the message content problem" (Kotler, 1972), "the what-to-say problem" (Sandage and Fryburger, 1971), "the copy strategy problem" (Longman, 1971), "the advertising theme problem" (Roberto, 1973), "the Unique-Selling-Proposition Problem" (Twedt, 1969), "the positioning problem" (Overholser and Kline, 1971), etc. The variety of names by which the problem is discussed reflects only the fact that many consider it a central problem in advertising decision-making. There is agreement that "what to say" in an ad is "its most important element" (Sandage and Fryburger, 1971, p. 285). One authority had even gone so far as to state that "this is the real core of advertising and its most challenging problems area" (Politz, 1960, p. 5).

Given this recognition of the problem, it is a surprise to find that this problem area has received inadequate attention by way of formal and systematic investigation (Kotler, 1972; Roberto, 1973). The practice and tradition have been to leave the problem and its solution in the hands of the so-called "creative staff and artists." Efforts at instituting more and more research and data based decision making about this problem have, however, been initiated by many advertising agencies which have their own research units (see Roberto, 1973 for a detailed account of the practices and approaches prevailing among several large U.S. ad agencies). While encouraging and

interesting, these efforts are limited by a lack of a generalization-giving theoretical framework.

The current need is for such a framework and for its empirical testing and validation. The present study is addressed to this need. It presents a consumer attitude-behavior model for the needed framework and the results of testing the model on data collected from a stratified random sample of 600 male Metro Manilans during the month of May 1975.

The Problem Context

The setting in which the present study was conducted was a social marketing project known as the "Condom Distribution Project" (CDP). This project constituted the bigger part of a larger program, the Commercial Contraceptive Marketing Program (CCMP) of the Population Center Foundation. The senior author served as the CCMP Program Director during its planning and pilot implementation phase. It was during this phase that the data used in this study were collected as part of the larger evaluative research program of the CCMP. (For details, see Roberto et. al., 1975).

The CCMP aimed at attracting and harnessing the marketing and project management capabilities of the commercial sector for diffusing family planning knowledge and non-clinical products. The Condom Distribution Project started the CCMP toward this primary objective.

In design and implementation, the CDP was directed at removing in a pilot area, the two principal problems that the CCMP believed constituted the two critical bottlenecks in the successful attempt of the country's population program at widespread contraceptive acceptance and continuing practice. The two problems were: (1) the extremely limited availability and accessibility of condoms; and (2) the considerable prevailing ignorance about the effectiveness, availability, and proper use of condoms. The CDP sought to eliminate the first problem through a distribution strategy that intended to make condoms available, not only in traditional outlets like the drugstores but also in retail "sari-sari" stores, groceries, supermarkets, and bazaars. It aimed to tackle the second problem through a demand creating advertising campaign. It is this type of advertising that is of concern and relevance to the present paper.

Roberto et. al. (1975, p. 19) conceptualized the needed demand

creating roles of CDP in terms of three hierarchical levels of activities. The highest level (Level I) calls for creating demand for the *product class* which in the population area would refer to contraceptives, or more broadly, family planning. In the next level (Level II), demand creation is for *product types* which together make up a product class. For contraceptives, these would refer to the pill, condom, IUD, etc. Finally, at the lowest level (Level III) demand creation talks about *product brands* which in combination constitute a particular product type. For condoms, for example, these would be Gold Coin, Ramses, Conform, Jellia, Durex, etc.

It was assumed in CDP that: (1) to create demand at the level of the product brand, there must already be demand at the level of the product type, and (2) to create demand at the level of the product type, demand at the level of product class must already exist. In the case of the CDP's brand, "CONFORM" condoms, the CCMP project managers agreed in line with this assumption that "to create demand (for CONFORM), we must assume that demands at the level of condom and at the level of family planning exist" (Roberto, et. al., 1975, p. 20).

Based on the findings of the National Acceptor Survey showing, among other things, the extensive awareness and approval of family planning the CCMP staff concluded that "We are now beyond the selling of the family planning concept by itself; that is, we are now beyond the creation of the demand for the product class. We are now in demand creation for the product type and brand; for condom and for 'Conform' condoms." (Roberto, et. al., 1975, p. 20).

In the subsequent decision to apply advertising for demand creation for condoms, one of the critical questions asked was what to say in the ad. It was decided that the answer could be best obtained through a research. The CDP had provisions in its budget for two consumer surveys before and after the pilot testing of its activities. A block of questions to make operational a model of decision making by a contracepting consumer was included in the "before survey" questionnaire in order to supply data by which to answer the appeal question in condom advertising.

The Model

From the perspective of consumer behavior, an advertising appeal has been defined as something constituting "a motivating force

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directed by an advertiser toward a prospective consumer for the purpose of stimulating him to react in a specific manner, and also as an act consisting of "the holding forth of a reason for acting or the stimulation of an emotional urge to buy" (Graham, 1952, p. 36). Implicit in this definition is the idea that to be effective in stimulating consumer behavior, acting or buying, the advertising appeal should have captured the salient "motivating force or forces," the action triggering "reasons," or the relevant "emotional urges." The practical question is how this capturing should be organized.

The main purpose of this study is to show how this question may systematically be handled, and the capturing effectively organized through the use of models of consumer behavior. The model specifically applied here is the attitude-behavior model of Fishbein (1967, 1972). This model has been found helpful by others in answering questions about communication messages for other products and other settings (e.g., see Sheth and Talarzyk, 1972; and Cohen and Houston, 1970). Its basic propositions are essentially very simple. They state that a consumer's behavior depends upon just two things: what his attitude is towards performing the behavioral act concerned, and what he believes others expect he should do. The formal translations of these propositions into its researchable form or forms may be summarized as follows:

1. The consumer attitude variable (A) is a function of two other variables, namely, (1) the condom consumer's belief about the consequences of using condoms (BC), and (2) the consumer's importance evaluation of those anticipated consequences (IE).

2. The extent of influence on a consumer's A is determined by the multiplicative changes or levels of that consumer's BC and IE. In other words, a change in attitude is determined not only by the change in a particular belief about a consequence but also by the level of importance assigned by the individual to that consequence. Therefore, a large belief change will not necessarily entail a large attitude change if the importance of that belief is low. Previous studies on this relationship had produced mixed results (Cohen and Houston, 1970; Davidson and Jaccard, 1974; Scott and Bennett, 1971; and Sheth and Talarzyk, 1972).

Algebraically, therefore:

$$A_{uc} = \sum_{i=1}^{n} [(BC_i)(IE_i)]$$

where: A_{uc} = the attitude of the consumer toward his using condoms for family planning (i.e., attitude toward the act rather than the object).

BC_i = the consumer's belief about the ith consequence of using condoms ($i = 1, 2, \ldots, n$);

IE_i = the consumer's importance evaluation about the ith consequence ($i = 1, 2, \ldots, n$);

n = the number of anticipated consequences.

3. The variable "what others say he should do" is a social norm variable which is assumed to have two components. One component is the set of beliefs that the condom consumer has about what his so-called "significant others" (e.g., wife, parents, friends, etc.) expect he should do about using condoms. This will be referred to as the behavioral norm variable (BN). The other component is the consumer's felt want to comply with BN or his motivation to comply (MC).

4. The influence of BN and MC on consumer behavior takes place in multiplicative fashion so that even if the consumer believes, for example, that his best friend thinks he should use condom, it will not influence him into actually using condoms if at the same time he has no wish to comply with such expectations insofar as condom usage is concerned. This is based on the original statement of the model (Fishbein, 1967).

5. The consumer behavior variables may be measured by the surrogate variables, behavioral intentions (BI, which in the present study is the consumer's intention to use condom for family planning in a given situation. BI is a function of: (1) the consumer's attitude toward using condoms, i.e., A_{uc}; and (2) his behavioral norms regarding condom usage (i.e., BN), and his motivation to comply with these norms (i.e., MC).

6. These two sets of BI predictors work independently, and consequently influence BI together in an additive fashion.

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This draws upon Fishbein's (1967) original statement of the model.

7. All of the foregoing can be summarized in the form of the following algebraic function:[2]

$$BI = b_1(A_{uc}) + b_2 \left\{ \sum_{j=1}^{m} [(BN_j)(MC_j)] \right\}$$

where: BI = behavioral intention

A_{uc} = consumer attitude towards using condoms;

BN_j = the consumer's belief about what his jth "significant other" expects he should do about using condoms ($j = 1, 2, \ldots, m$);

MC_j = the consumer's motivation to comply with his jth significant other's expectation of him.

b_i = beta weights given the assumption that this relationship is estimated through a regression functions ($i = 1, 2$);

m = number of "significant others."

Given these propositions of the model, the following advertising decision questions were asked:

1. For condom demand creation, should the ad campaign appeal (1) to consumer beliefs about what using condoms can do; or (2) to consumer's significant others' norms about using condoms?

2. If it is beliefs, which one should it be? Similarly, if it is significant others, which significant other should it be?

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[2] Note that model does not specify an intercept term. This is accounted for by both the original specification of the model (Fishbein, 1967) and the ordinal nature of the data (for elaboration, see Blalock, 1968).

It is recognized, however, that in the actual estimation of the regression model the appropriate procedure should be to constrain the least square in order to reduce constant terms to zero. Otherwise, the regression coefficient estimates may be influenced by the inclusion of an intercept term.

Research Design

Respondents

Being part of the evaluative research plan of the CCMP specifically relating to the assessment of the pilot phase of the CDP, this study collected data on CDP's target market. This market was designated to be in the pilot test area of Greater Manila and belonging to the C, D, and E socio-economic classes.[3]

Following this guideline, a random stratified multi-stage sample of 600 males in Greater Manila was drawn. Stratification was implemented with respect to the three socio-economic classes under the following distribution:

Socio-economic Class	Number of Respondents	Percent of Total
C	150	25
D	300	50
E	150	25
Total	600	100

Because of the moral concerns of the sponsors of the social marketing program in which this study was embedded it was also necessary to screen prospective respondents. To be included in the sample, a likely subject was screened with respect to: (1) being presently married; (2) being between 18-45 years of age; and (3) being a Filipino citizen and resident. Only when the answers to all three questions were positive was a prospective respondent taken in for interview.

No significant difference with respect to the dependent variable was obtained among the three socio-economic segments. The study

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[3] This socio-economic classification follows the current standard practice of referring to (1) the upper class as class AB, (2) the middle class as class C, (3) the upper lower class as class D, and (4) the lower lower class as class E. Several factors or criteria are used in combination to determine a particular respondent's classification. They include generally such things as occupation, total income, household utilities, housing, rental, children's school, and recreational habits.

The stratification of the sample into the three socio-economic classes was dictated by other purposes for which the research was commissioned such as the intent of the project proponent to define the target market into those three market segments.

therefore treated the data as a whole.

Instrumentations

Measurement scales for the six basic variables of the model tested in this study were developed. These variables were: (1) attitude toward using condoms for family planning; (2) beliefs about the consequences of using condoms; (3) importance evaluations of the expected consequences; (4) behavioral intention toward using condoms; (5) beliefs about what one's significant others expects one to do about using condoms; and (6) motivation to comply with a significant other's expectation.

Measures from scales on these variables were obtained through a self-administered questionnaire. An interviewer provided each respondent with a standardized set of instructions concerning how to answer. After this briefing, the respondent was asked to fill out a short practice section containing examples of each type of scale used in the study. On many occasions, this enabled the interviewer to detect right away any misunderstanding or difficulty of the respondent before actual answering. The interviewer remained as the respondent filled out the self-administered questionnaire in order to answer questions of the respondent as the latter completed the interview schedule.

Attitude Toward Using Condoms (A_{uc})

The measure of the variable, "Attitude toward using condoms for family planning," consisted of the respondents' ratings of 25 evaluative semantic differential scales. Each of these scales was presented for a respondent's rating as a five-point scale so that any one respondent's attitude score (computed as the sum of his ratings of the 25 scales) ranged over a low 25 to a high 125.

The 25 evaluative scales used were: (1) "safe-unsafe", (2) "effective-ineffective," (3) "sure-not sure," (4) "bothersome-not bothersome," (5) "reliable-unreliable," (6) "easy-hard," (7) "expensive-inexpensive," (8) "clean-dirty," (9) "moral-sinful," (10) "necessary-unnecessary," (11) "bad-good," (12) "admirable-ridiculous," (13) "embarassing-unembarassing," (14) "right-wrong," (15) "novel-conventional," (16) "simple-complicated," (17) "nuisance-not a nuisance," (18) "convenient-inconvenient," (19) "sensible-not sensible," (20) "desirable-undesirable," (21) "com-

fortable-uncomfortable," (22) "crude-refined," (23) "painless-painful," (24) "pleasant-unpleasant," (25) "appropriate-inappropriate."

These scales were obtained from a content analysis search for such polar adjectives from: (1) the protocols of four small group focus interviews that were commissioned a few weeks before this study, and (2) the public communication materials and literature that family planning organizations in the pilot area distribute in their clinics and to the public regarding the use of condoms.

Beliefs About Consequences (BC_i)

The measures of beliefs about the consequences of using condoms used a semantic differential format. A respondent's position on a particular belief was obtained through the instruction: "For each pair of words or phrases, please put one check on one of the blanks provided to indicate your feelings. The nearness of your check to either words or phrases in the pair indicates your strength of feeling." An example of such a pair is the following:

can lessen my   will not lessen
sexual enjoyment ____:____:____:____:____ my sexual enjoyment

Ten such pairs were presented for respondents' ratings. These ten beliefs similar to the attitude scales were culled out of a content analysis of: (1) the protocols of four small group focus interviews, and (2) the condom communication literature distributed by family planning organizations. The ten beliefs consisted of such anticipated consequences of using condoms as: (1) lessening one's sexual enjoyment, (2) having side effects, (3) making birth control fun, (4) being responsible, (5) being careful, (6) help in avoiding promiscuity, (7) being unnatural, (8) giving a feeling of security, (9) making one feel guilty, and (10) interference with the spontaneity of sex.

Importance Evaluation (IE_i)

The variable, "importance evaluations of the expected consequences believed to follow from the use of condoms," was measured by asking the respondent to express how important he felt each of the ten consequences behind the ten BC_i's. The ten expected consequences were presented in a Likert scale format and the respondent was asked to draw a circle around one of the five

indicators that best described how he felt. The indicators were given right after each of the stated consequences and consisted of the numbers one to five where "1" referred to the feeling that the consequence was very important; "2", the feeling that the consequence was important; "3", the feeling that the consequence was neither important nor unimportant; "4", the feeling that the consequence was not important; and "5", the feeling that the consequence was not at all important.

Behavioral Intentions (BI)

Two alternative measures of the variable "behavioral intentions toward using condoms" were used. The first of these could be called a general behavioral intention measure. It asked the respondent to say how likely or unlikely the statement, "I intend to practice family planning by using condoms" described his present personal situation. The second measure was a specific behavioral intention scale. Its stimulus statement was, "I intend to use condoms within the next two months." The two measures then were general or specific with respect to the absence or presence of a time designation of implementation.

The rationale in providing two alternative BI measures is both methodological and programmatic. The tradition of research which had tested Fishbein's model has come more and more to focus, among other things, on specific measures in contrast to more general measures. This research strategy has been claimed to substantially improve the predictive power of the research (see especially, Davidson and Jaccard, 1974). In fact, the frequent results of attitude research to find non-significant relationship between attitude and behavior (this latter variable being measured directly or through its surrogate, BI) have been traced to the poor and general character of instrumentation of the behavioral variable (see, for example, Pinson and Roberto, 1973; Campbell, 1963; and Wicker, 1969).

From a program management perspective, what matters immediately to the marketing manager is the timing of BI. A customer may have all the intention to buy but if this intention is not committed to a specific timetable sales will remain unaffected. On the other hand, commitment to a general intention to act is not unimportant because it precedes and may be a precondition to getting the customer to transform general intention into its specific time-scaled form.

Beliefs About Significant Other's Expectation (BN_j)

A review of the literature on the influence of reference groups on family planning decisions (Stycos, 1958; Hill, Stycos and Back, 1959; Rainwater, 1965; Potler and Kantner, 1955; Ryder and Westoff, 1971; and Griffith, 1973) isolated six so-called "significant others" who have been identified to exert conformity pressures on contracepting individuals. These six reference groups are: (1) parents, (2) spouse (and therefore for this study, the wife); (3) parents-in-law, (4) family doctor, (5) close friends and, (6) religious counselor.

Measurement of the variable, "Beliefs about what one's significant others expect one to do about using condoms," was obtained by asking the respondent to express his degree of agreement or disagreement with the statement: "My _____ thinks that I should use condoms." The blank space stands for the appropriate significant other. The statement is therefore repeated six times corresponding each time to one of the identified six reference groups.

Motivation to Comply (MC_j)

The variable, "Motivation to comply with a significant other's expectation," was measured by asking the respondent to state how much he agrees or disagrees with the statement: "Generally, I want to do what my _____ thinks should be done." Similar to BN_j, the blank represents the significant other under evaluation by the respondent and there are six of these. This measurement approach is based on and follows how recent past research studies have operationalized this variable.

Analysis Plan

While the model applied in this study implicitly suggests how the data collected should be treated for purposes of analysis, there is no reason why data organized more in accordance with the demands of its designated objectives and key research questions rather than in accordance with the strict form of the model applied.

It may be recalled that the principal motivation of this study is to determine how condom demand creation should be persuasively influenced. If demand creation is interpreted as the process of stimulating: (1) condom consumer attitude, and (2) consumer

condom usage intentions, then the alternative analysis models that this study should evaluate would be as follows:

Set I: For answering the question of whether to appeal to beliefs or to appeal to significant others.

    A. Dependent Variable: Attitude

    Model 1: The independent variables are weighted. Specifically, (1) the beliefs-about-consequences scores and the importance-evaluations scores are multiplied together and then summed; and (2) the beliefs-about-significant-others scores and the motivation-to-comply scores are multiplied together and then summed.

    Model 2: The independent variables are not weighted. Specifically, (1) the beliefs-about-consequences scores by themselves and summed; and (2) the beliefs-about-significant-others scores by themselves and summed.

    B. Dependent Variables: Behavioral intentions

        1. For *general* behavioral intention measure

        Model 3: Same as Model 1

        Model 4: Same as Model 2

        2. For *specific* behavioral intention measure

        Model 5: Same as Model 1

        Model 6: Same as Model 2

Set II: For answering the question of which particular belief and which particular significant others (the dependent variable being consequent to results in Set I).

    A. Which particular belief

    Model 7: Each of the 10 beliefs-about-consequences as 10 separate independent variables;

    Model 8: A smaller subset (obtained through a data

reducing technique like Factor Analysis) of the 10 beliefs-about-consequences as independent variables.

B. Which particular significant others

Model 9: Each of the 6 beliefs-about-significant-others as separate independent variables.

For brevity and convenience these alternative analysis models may be stated in the following regression equation forms:

Model   *Regression Equation Equivalence*

(1) $A_{uc} = b_1 \left(\sum_{i=1}^{10} [(BC_i)(IE_i)] \right) + b_2 \left(\sum_{j=1}^{6} [(BN_j)(MC_j)] \right)$

(2) $A_{uc} = b_1 \left[\sum_{i=1}^{10} (BC_i) \right] + b_2 \left[\sum_{j=1}^{6} (BN_j) \right]$

(3) BI_g = as in (1)

(4) BI_g = as in (2)

(5) BI_s = as in (1)

(6) BI_s = as in (2)

(7) A_{uc} or BI_g or $BI_s = b_1 (BC_1) + b_2 (BC_2) + \ldots + b_{10} (BC_1$

(8) A_{uc} or BI_g or $BI_s = b_1 (BC_1) + b_2 (BC_2) + \ldots + b_k (BC_k)$
                                             where $k < 10$

(9) A_{uc} or BI_g or $BI_s = b_1 (BN_1) + b_2 (BN_2) + \ldots + b_6 (BN_6$

Where: A_{uc} = attitude toward using condoms;

BC_i = the consumer's belief about the i*th* consequence of using condoms;

IE_i = the consumer's importance evaluation about the i*th* consequence;

BN_j = the consumer's belief about what his j*th* significant other expects he should do about using condoms;

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MC_j = the consumer's motivation to comply with his *jth* significant other's expectation of him;

BI_g = general behavior intention;

BI_s = specific behavior intention;

b_i or b_j = the estimated regression coefficients

Results and Conclusions

The results of the analysis carried out may be usefully organized according to the advertising research questions they are helping to answer. These questions together with the analysis alternatives pertinent to them are:

Question	Applicable Analysis Models
1. Should the ad appeal to beliefs or to significant others? (The instrumentality persuasion versus the legitimating persuasion question)	
a. For influencing consumer attitude:	Models 1 and 2
b. For influencing consumer usage intention:	Models 3 and 6
2. If the choice is for an instrumentality persuasion appeal, then which particular instrumentality belief will constitute the core appeal? (The instrumentality-focus question)	Models 7 and 8
3. If the choice is for a legitimating persuasion appeal, then which particular legitimating significant other will constitute the core appeal? (The legitimating-focus question)	Model 9

Instrumentality Persuasion or Legitimating Persuasion?

The issue of whether to have an instrumentality persuasion

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campaign or a legitimating persuasion campaign was analyzed in a variety of ways with both predictor and criterion variables differing in each case. Table 1 summarizes the results of implementing analysis models 1 to 6.

TABLE 1

Results of Multiple Regression Analyses
for Analysis Models 1 to 6

| Analysis Model Number | Criterion Variable | Regression Coefficients of Predictor Variables: | | R Square |
		Instrumentality Belief Index	Significant Others Index	
1 W	A_{uc}	.4293 (24.18)	.0640 (2.26)	.7214
2 UW	A_{us}	2.1751 (51.70)	.3340 (4.80)	.9686
3 W	BI_g	.0105 (8.35)	.0134 (6.71)	.4344
5 W	BI_s	.0098 (6.89)	.0136 (7.94)	.4260
6 UW	BI_s	.0987 (10.71)	.0306 (5.49)	.5403

NOTE: Figures in parentheses are t values.

The information presented in Table 1 indicates the following:

1. The better predictor of consumer intention to use condom whether in general or within a specific time frame is significant others. This is true even when the predictor variables are weighted (analysis Models 3 and 5).

2. On the other hand, the better predictor of consumer attitude toward the use of condom for family planning is instrumentality beliefs. As in the preceding, this holds even when the predictor variables are weighted (Analysis Model 1).

In answer to the question to which analysis Models 1 to 6 are addressed, two conclusions may be drawn from the two major sets of results. First, for condom demand creating advertising campaign that is meant to push *consumer intention to use condoms* either immediately or in general, the advertising appeal should be legitimating in character. This means that the campaign should appeal to the

individual with whom consumers identify, the so-called significant others. In its execution form, the ad will therefore be an endorsement or a testimonial. The second conclusion states that if the demand creating advertising campaign is intended to shape *consumer attitude towards using condoms*, the advertising appeal should consist of the desirable consequences that consumers expect out of using condoms for family planning, or the so-called instrumentality beliefs.

Which Perceived Instrumentality Beliefs?

Given that instrumentality persuasion is the more powerful approach for consumer attitude influencing, the next advertising decision question is which perceived instrumentality among the ten studied here is the most important one, or which belief to beam the advertising message to. Analysis Models 7 and 8 using attitude scores as the criterion variable were performed to provide answers to this question. Table 2 presents the results of these two regression runs.[3]

If the choice of "most important" predictor were to follow the suggestions of Blalock (1968, pp. 186-192; 1961) then this should be based on the size of the predictor variable's regression coefficient. The results of Analysis Model 7, as shown in Table 2, indicate that the perceived instrumentality of "using condom gives a feeling of security" is the most important predictor variable of consumer attitude. If this analysis is valid, then the conclusion for the advertising question is quite straightforward: the advertising appeal for influencing consumer attitude should hammer on the message that using condom contributes to the user's sense of security. But the validity of the analysis is in fact questionable.

Essentially, the validity problem in Analysis Model 7 comes from the fact that many of the ten perceived instrumentality predictors are highly intercorrelated. This situation gives rise to the so-called problem of multi-collinearity. This means that variations in the perceived instrumentality data are not independent enough of one another to allow the individual effect of each instrumentality predictor on the attitude variable to be identified. The multiple regression estimates obtained for the influence of the predictor variables will therefore contain not only the effects of their individual variations but also their interaction with one another. This

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[3] Again regressions were even with constant term.

TABLE 2

Results of Multiple Regression Analyses for Analysis Models 7 and 8

Items	Analysis Model #	
	7	8*
Criterion variable	A_{uc}	A_{uc}
Regression coefficients of Predictor:		
BC_1 — lessening of sexual enjoyment	1.58 (4.68)	4.96 (11.27)
BC_2 — having side effects	2.05 (5.91)	— —
BC_3 — making birth control fun	1.18 (3.19)	— —
BC_4 — being responsible	2.07 (5.42)	5.29 (10.51)
BC_5 — being careful	1.97 (3.58)	— —
BC_6 — help in avoiding promiscuity	1.03 (2.61)	4.28 (8.00)
BC_7 — being unnatural	2.61 (7.70)	— —
BC_8 — giving feeling of security	3.05 (6.74)	— —
BC_9 — feeling guilty	2.79 (7.26)	— —
BC_{10} — interference with spontaneity of sex .	2.19 (5.58)	— —
R Square	.753	.435

*Regression coefficients were estimated on only three of the ten BC_i's identified in the Factor Analysis as minimally intercorrelated.

NOTE: Figures in parentheses are t values.

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renders the regression coefficients unreliable as measures of the respective influences on the attitude criterion of the ten instrumentality belief predictors.

The solution that Green and Tull (1974) have proposed is to use Factor Analysis as a means of isolating from among the many predictor variables those predictors that are minimally intercorrelated.[4] Multiple regression analysis is then performed only on those predictor variables which loaded the most on the small set of factors identified by Factor Analysis as accounting for most of the variance in the larger set of predictors.

Following this suggestion, Factor Analysis was applied to the data on the ten instrumentality belief variables. The factoring method used was principal factoring with no iterations and factors were rotated by varimax rotation. Three factors were extracted whose highest loading instrumentality variables were: (1) lessen sexual enjoyment instrumentality, (2) being responsible instrumentality, and (3) helping avoid promiscuity instrumentality.

The data on these three instrumentality predictors were subjected to multiple regression analysis. The results are presented in the lower and second portion of Table 2 under Analysis Model 8. As indicated in Table 2, the most important instrumentality belief predictor of consumer attitude under this regression analysis is the "being responsible" instrumentality. Being freer of the multicollinearity problem, this is the more valid and therefore more preferred result.

The conclusion that follows is that the advertising appeal for shaping the attitude aspect of consumer condom demand should stress the image and sense of responsibility which accrue to the person using condoms for family planning.

Which Legitimating Significant Other?

In the other instance where the demand creation task is defined

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[4] It was recognized that there are other alternative ways of reducing the independent variables in regression analysis, i.e., stepwise regression, Discriminant Analysis. However, what was available to the writers was Factor Analysis.

It may also be noted that instead of using the factors as IVs for the regression run, the highest loading variables in each factor were the ones used. This was more a matter of expediency rather than choice on the part of the analyst.

terms of exerting influence on consumer usage intention, the results of Table 1 indicate that the more strategic advertising approach is a legitimating persuasion campaign. Under this particular strategy, the operational advertising appeal issue is: around which legitimating source among the six on which data were collected should the advertising message be built. Analysis Model 9 with the behavioral intention variables (BI_g and BI_s) as two separate dependent variables was carried out to suggest the answer. Table 3 summarizes the results.

TABLE 3

**Results of Multiple Regression Analyses
for Analysis Model 9**

	Criterion Variables	
Items	BI_g	BI_s

Regression coefficients of predictors:

BN_1 — Belief about norm of parents	.040	.033
	(.088)	(.881)
BN_2 — Belief about norm of wife	.074	.078
	(.475)	(5.249)
BN_3 — Belief about norm of parents-in-law ..	−.051	−.028
	(−.042)	(.394)
BN_4 — Belief about norm of doctor	.037	.014
	(.164)	(1.539)
BN_5 — Belief about norm of close friends ...	.007	−.004
	(−.015)	(.145)
BN_6 — Belief about norm of religious counselor	.004	.018
	(.028)	(.0302)
R Square	.198	.190

NOTE: Figures in parentheses are t values.

As indicated by the comparative sizes of the obtained Beta weights in Table 3, the best significant-other predictor of consumer usage intention in the immediate sense as well as in general is the wife. However, because the predictive powers of the two estimated regression functions are weak, as may be judged from the low values of their R square, care should be exercised in drawing the implication that the advocated legitimating persuasion campaign, if it is to have an impact on consumer usage intention for condoms, should develop its appeal around the wife and her expectations about her husband's use of condom for their family planning situation. Further research is clearly necessary to confirm the reason for the low predictive power.[5] But for present purposes, the finding and its qualified implication are worthwhile drawing because of the contract it provides.

Summary of Conclusions

The foregoing presentation of the results of the multiple regression analysis carried out may, for convenience, be briefly pooled together as stating the following decision prescriptions about how the marketing director of the CDP should determine the advertising appeal of his condom demand creating campaign:

1. If the condom demand creating campaign wants to condition consumer attitude toward condom usage, then the advertising appeal should be addressed to the instrumental consequences that consumers expect or perceive from using condoms for family planning; i.e., the campaign should be an instrumentality persuasion campaign.

2. The most important of these perceived instrumental consequences is the expectation of felt enhancement of one's sense of responsibility when one uses condoms for family planning. Accordingly, the attitude directed campaign should construct its core advertising appeal on this perceived instrumentality of condom usage.

3. On the other hand, if the condom demand creating campaign

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[5] This may be accounted for by the generally low predictive accuracy of a 5-point intention scale as Engel, Kollat and Blackwell (1973, pp. 364-364) have argued. (For an opposing argument, see Clancy and Garsens, 1970.) Juster (1966) and Gruber (1970) have demonstrated that an 11-point intention scale given in purchase probability terms has a much greater predictive strength.

aims to work on consumer usage intention, then the advertising appeal should project a legitimating message coming from the "significant others" whose expectations are valued by the consumer regarding his use of condoms; i.e., the campaign should be a legitimating persuasion campaign.

4. The most important of these significant others is the wife. Thus, the campaign weighed consumer usage intention should define its core advertising appeal on the message that the wife expects the man's use of the condoms for their family planning and consequently the man only owes it to the wife to use condoms.

It is clear from the foregoing that there is no simple answer to the advertising research questions chosen to motivate this present study. It is also clear that the advertising campaign developer and organizer should be specific about the dimension or facets of demand creation he is trying to condition. In this study, two such dimensions were investigated, namely, the attitude dimension and the behavioral intention facet. As the analysis results show, the indicated actions or decisions relative to each designated dimension differed. All this only means that research findings can only be as specific as the research user is specific about his objectives.

Implications

Practical Implications

The analytical approaches of the study can be tapped to enrich the practical conclusions drawn in the preceding section about what to do with the choice of advertising appeal. To illustrate by way of an example, consider the finding about the most important perceived instrumentality predictor of consumer attitude. This result may be related to the Factor Analysis that was used to identify this predictor as one of the three predictors on which the attitude criterion variable was regressed. In so doing the prescription formulated can be elaborated in order to come out with an advertising appeal package. To appreciate this, the Factor Analysis results should be given a closer look. Table 4 presents a summary.

The results presented in Table 4 tend to suggest that, for maximum reinforcement effects, the persuasive communication message built around the "responsibility" appeal must be composed

TABLE 4

The Factors Extracted and Their Components

Factor #	Component Instrumentality Beliefs	Loading
I	Belief about lessening of sexual enjoyment	.946
	Belief about interference with spontaneity of sex	.744
	Belief about making birth control fun	.590
	Belief about being unnatural	.551
II	Belief about help in avoiding promiscuity	.769
	Belief about being careful	.704
	Belief about gaining feeling of security	.670
III	Belief about being responsible	.810
	Belief about having side effects	.676
	Belief about feeling guilty	.581

in such a way as to tie in this responsibility appeal with the two other instrumentality beliefs which together define the Factor III yielded by the Factor Analysis. In other words, while the study's 600 respondents indicate in the multiple regression analysis that the belief in condom's instrumentality for an enhanced sense of responsibility has the strongest force on the consumer's attitude leanings toward condom usage, the Factor Analysis results suggest that inducement and reinforcement of this perceived instrumentality can systematically be accomplished by bringing the two other instrumentality beliefs (about freedom from side effects and guilt feelings with which the responsibility belief goes together) to constitute Factor III or, in its advertising equivalent, the advertising appeal package. Designing then an ad message plan using all three perceived instrumentalities would be the most strategic ad appeal determination approach toward attaining the objective of bending consumer attitude toward condom usage to a more favorable direction.

One of the more important implications to marketing theory formation suggested by the results of this study is the possibility of developing a practicable framework for rationally deciding on the problem of advertising appeal determination. The framework tested here consisted very simply in conceptualizing the advertising appeal determination as a consumer decision-making problem that could be expressed in the form of a decision function or calculus. This calculus consists of: (1) a criterion variable corresponding to the advertiser's advertising appeal goals or objectives, and (2) a set of predictor variables made up of the set of considerations which consumers take in deciding on their criterion variable. Specifically, the decision calculus tested in the present study said that the consumer's decision on attitude or on usage intention for condoms is a function of that consumer's set of beliefs about usage consequences and his set of beliefs about what his significant others expect him to do about using condoms. The results obtained in this study suggest that for the product type to which condom belongs, this model provides a useful framework for advertising appeal decisions.

The results of implementing Analysis Models 1 to 6 uniformly indicate that "unweighted" predictor variables predicted more accurately than "weighted" predictors. [6] This is brought out most clearly by comparing the multiple correlation coefficients (R) of the estimated regression equations in the six Analysis Models. Table 5 presents the comparison.

The comparison suggests that the importance evaluation (IE_j) factor and the motivation to comply variable (MC_j) exert a deflating rather than an augmenting influence on the predictive ability of, respectively, the belief about consequence variable (BC_i) and the belief about significant other's expectation factor (NB_j) when: (1) a BC_i is weighted or multiplied by the corresponding IE_i score, and (2) a BN_j is weighted by the corresponding MC_j rating. This would suggest that the unweighted formulation should be preferred over the weighted ones. Such preference is justified by the obtained predictive strength of one over the other as well as by the criterion of parsimony (Pinson and Roberto, 1972).

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[6] The weights referred to are the IE_i scores for the predictor variable BC_i and the MC_j scores for the predictor variable BN_j.

This finding is consistent with the results of past studies that have applied the model tested here (See, for example, Sheth and Talarzyk, 1972; Cohen and Houston, 1970; and Roberto, 1974). Why such deflating effect takes place has also been the subject of a considerable amount of debate among consumer behavior researchers and others, and is well documented in the literature (see, for example, Tuck, 1973; Beckwith & Lehmann, 1973; Sheth and Talarzyk, 1972; Cohen, Fishbein and Ahtola, 1972; Scott and Bennett, 1971). What the present study has done is to add to this evidence.

TABLE 5

Multiple Correlation Coefficients of Six Regression Functions

Pair of Analysis Model Being Compared	Predictor Variable in the Regression Equation	Multiple Correlation Coefficient, R
1 versus 2	1: weighted predictor variables	.721
	2: unweighted predictor variables	.969
3 versus 4	3: weighted predictor variables	.434
	4: unweighted predictor variables	.537
5 versus 6	5: weighted predictor variables	.426
	6: unweighted predictor variables	.540

REFERENCES

Beckwith, N.E. and D.R. Lehmann. "The Importance of Differential Weights in Multiple Attribute Models of Consumer Attitude," *Journal of Marketing Research*. (1973) 10:141-145.

Blalock, J.M. "Theory Building and Causal Inferences," in H.M. Blalock and A.B. Blalock, eds. *Methodology in Social Research*. NY: McGraw-Hill, (1968) pp. 155-198.

Blalock, H.M. "Evaluating the Relative Importance of Variables," *American Sociological Review*. (1961) 26:866-874.

Campbell, D.T. "Social Attitudes and Other Acquired Behavioral Dispositions," in S. Koch, ed., *Psychology: A Study of a Science*. NY:McGraw-Hill, (1963) pp. 94-172.

Clancy, K.J. and R. Garsens "Why Some Scales Predict Better," *Journal of Advertising Research*. (1970) 10:33-38.

Cohen, Joel B., M. Fishbein, and O. Ahtota. "The Nature and Uses of Expectomy Value Models in Consumer Attitude Research," *Journal of Marketing Research*. (1972) 9:456-460.

Cohen, Joel B. and M. Houston. "The Structure of Consumer Attitude: the Use of Attribute Possession and Importance Scores," Working Paper, College of Commerce and Business Administration, University of Illinois at Alabama, (1970).

Davidson, A.R. and J.J. Jaccard. "Population Psychology: a New Look at an Old Problem," a paper presented at the Population Socialization Conference, East-West Population Institute, East-West Center, Hawaii, December, (1974).

Engel, James F., D.T. Kollat, and R.D. Blackwell. *Consumer Behavior*. NY: Holt, Rinehart and Winston, (1973).

Fishbein, M. "Toward an Understanding of Family Planning Behaviors," *Journal of Applied Social Psychology*. (1972) 2:214-227.

Fishbein, M. "Attitude and the Prediction of Behavior," in M. Fishbein, ed., *Readings in Attitude Theory and Measurement*. NY: Wirley, (1967).

Graham, Irvin *Encyclopedia of Advertising*. NY: Fairchild Publications, (1952).

Green, P.E. and D. Tull. *Research for Marketing Decisions*. Third Edition. Englewood Cliffs, (1974) N.J.: Prentice-Hall.

Griffith, Janet. "Social Pressure on Family Size Intentions," *Family Planning Perspectives*. (1973) 5:237-242.

Gruber, Alin. "Purchase Intent and Purchase Probability," *Journal of Advertising Research*. (1970) 10:23-27.

Hill, R., J.M. Stycos, K.W. Back. *The Family and Population Control: a Puerto Rican Experiment in Social Change*. Chapel Hill, N.C.: University of North Carolina Press, (1959).

Juster, F.T. *Consumer Buying Intentions and Purchase Probability*. NY: National Bureau of Economic Research, (1966).

Kotler, Philip. *Marketing Management*. Englewood Cliffs, N.J.: Prentice-Hall, (1972).

Longman, K.A. *Advertising*. N.Y.: Harcourt, Brace, Javanonich, Inc. (1971).

Overholser, C.E. and J.M. Kline. "Advertising Strategy from Consumer Research," in S.J. Shapiro and Jean-Charles Chabat, eds., *Marketing Management: Readings in Operational Effectiveness*. NY: Harper and Row, (1974) pp. 15-19.

Pinson, C. and E.L. Roberto. "Do Attitude Changes Precede Behavior Change?" *Journal of Advertising Research*, (1973) 13:33-38.

Pinson, C. and E.L. Roberto. "Simplicity, Parsimony, and Model Building," *Proceedings*, 1972 Midwest Conference, American Institute for Decision Sciences, (1972) pp. C-31 to C-34.

Politz, Alfred. "Dilemma of Creative Advertising," *Journal of Marketing*. (1960) 24:1-6.

Potler, R.G. and J.F. Kantnes. "The Influence of Siblings and Friends on Fertility," in P.K. Whelpton and C.V. Kiser, eds.,

Social and Psychological Factors Affecting Fertility (5 volumes, 1946-1958). New York: Milbank Memorial Fund, (1955) pp. 1189-1210.

Rainwater, L. *Family Design*. Chicago: Aldine, (1965).

Roberto, E.L. "Marital and Family Planning Expectancies of Man Regarding Vasectomy," *Journal of Marriage and the Family*. (1974) 36:698-706.

Roberto, E.L. *An Investigation of the Problem of Advertising Theme Research with Specific Application to the Social Marketing of Vasectomy Services*. Unpublished Ph. D. Dissertation, Northwestern University, Evanston, Illinois, (1973).

Roberto, E.L., R. Laset, and E. Moreno. "Progress Report on the Commercial Contraceptive Marketing Program for the Six Months Ending April 30, 1975." Reprinted in the Discussion Paper Series (as Discussion Paper No. 34) of the Studies in Diffusion of Innovation Project of the Department of Geography, the Ohio State University, (1975).

Ryder, N.B. and C.F. Westoff. *Reproduction in the United States: 1965*. Princeton, N.J.: Princeton University Press, (1971).

Sandage, C.H. and V. Fryburger. *Advertising Theory and Practice*. Homewood, Ill.: Irwin, (1963).

Scott, J.E. and P.D. Bennett. "Cognitive Models of Attitude Structure: Value Importance' Is Important," *Proceedings*. Fall Conference, American Maketing Association, (1971).
Conference, American Marketing Association, (1971).

Sheth, J.N. and W.W. Talarzyk. "Perceived Instrumentality and Value Importance as Determinants of Attitude." *Journal of Marketing Research*. (1972) 9:6-9.

Stycos, J.M. Some Directions for Research on Fertility Control. *Milbank Memorial Fund Quarterly*, (1958) 36:126-148.

Tuck, Mary. "Fishbein Theory and the Bass-Talarzyk Problem." *Journal of Marketing Research*. (1973) 10:345-348.

Twedt, D.W. "How to Plan New Products, Improve Old Ones, and Create Better Advertising," *Journal of Marketing*. (1969) 33:53-57.

Velasco, Emmanuel T. "MREGRE: A Multiple Regression Program With Option to Force the Constant Term to Zero", College of Business Administration, University of the Philippines, January (1972).

Wicker, Allan. "Attitudes versus Actions: The Relationship of Verbal and Overt Behavioral Responses to Attitude Objects," *The Journal of Social Issues*, (1969) 25:41-78.