

IS CENTS-OFF COUPONING POT LUCK?

by

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ABSTRACT

Cents-off coupons as a merchandising tool have received little examination by marketers and scholars, yet the growth of couponing has been steadily increasing, until today over \$500,000,000 worth of coupons are being distributed to consumers in the United States each year (Progressive Grocers, 1975).

Very little is known by marketers of the possible variables affecting the redemption rate of a coupon promotion. No model exists from which a marketer is able to predict the redemption rate of a cents-off coupon promotion; nor is there a clear understanding of the costs and revenues generated by such a promotion. Little attention has been given to the behavioral patterns of consumer's receiving, saving and redeeming a cents-off coupon. This paper attempts to investigate some of these questions and provide the framework from which further study may be attempted. It also introduces a new approach that marketers may use in planning future cents-off coupon promotions.

Three models have been designed to understand this often abused and misused subject. First, a conceptual model describes a series of consumer buying decisions from the time a cents-off coupon is received by a consumer, until it is thrown out or redeemed. Coupon awareness, coupon saving and coupon useage are the main components of the model and from which a number of variables have been identified that potentially influence the coupon redemption rate.

Second, a quantitative model provides a managerial evaluation of a cents-off coupon promotion by studying its costs

and benefits (revenues). The costs have been identified as the cost of coupon distribution, the value of the coupon, retailer and clearing house handling fees, and the cost of misredeemed coupons. The revenues of a cents-off coupon promotion accrue from three classes of buyers; the incremental buyer, defined as one who would not have bought the brand without the cents-off coupon; the incremental repeat buyer, one who purchases the brand again and the non-incremental buyer, one who would have bought the product even without the coupon. From this analysis a break-even model is constructed by which a marketer can measure the effectiveness of a cents-off coupon promotion. The fundamental aim of a cents-off coupon promotion should be that the promotion should be able to cover all costs from purchases by the incremental buyer group, otherwise marketers may be wasting substantial dollars on consumers already loyal to the couponed brand.

Third, a managerial model for predicting coupon redemption rates is presented. A number of probable variables affecting coupon redemption were tested using multiple regression. This model is the first of its kind to study simultaneously the effects of these variables and their interactions with one another.

Many questions still requiring further study and clarification evolve from this examination of cents-off coupons. The first multiple regression model supported the hypothesis that the redemption rate of a cents-off coupon promotion is a function of the value of the coupon and the method by which

the coupon is distributed. An additional variable, product type, was studied along with coupon value and method of coupon distribution in a second multiple regression model. The findings in both studies were similar. Coupon value, surprisingly, did not have as great an impact on coupon redemption as marketing managers might suspect. Far more important were the method of coupon distribution and product type. Package coupons, followed by direct mail and magazine coupons have the greatest affect on the coupon redemption rate. Food products purchased frequently are an important factor in redemption, however, household products, food products infrequently purchased and drug/toiletries were not statistically significant in this analysis. The independent variables in these multiple regression models accounted for approximately 30 percent of the variation in redemption rates. Clearly a number of other variables remain to be studied.

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## I. THE SCOPE AND EVIDENCE OF COUPONING

Couponing is big business. In 1974, over 30 billion manufacturer's coupons were distributed to American households. In Canada, that same year, 722 million coupons were distributed. On a per capita comparison 137 coupons were distributed to every person in the United States while 32 coupons were distributed to every Canadian consumer (Nielsen Clearing House, Canada 1975).

The growth of couponing has been staggering in the last ten years in both countries. In 1965, 10 billion coupons were distributed to American households, in 1970, 16.4 billion coupons, in 1972, 23.4 billion coupons and in 1973, 27.6 billion coupons. In 1975, it is estimated that in excess of 50 billion retailer "in ad" and manufacturer coupons will flood the American marketplace (Nielsen, U.S., 1975). In Canada for the three year period 1972 - 1974, coupon distribution increased 40% (Nielsen, Canada, 1975).

Women's Day Magazine (1974) reports that coupons in their publication are up 358%, in the period 1970 - 1974, and the number of advertisers running coupons has increased 152% in this five year period. In 1960 there were approximately 350 American companies engaged in couponing; today there are almost 1,000 (Nielsen Clearing House Report, 1974). A Progressive Grocer's study (1974) estimates the total worth of coupons in 1975 to be in excess of \$500,000,000.

Organizations associated with the food industry believe that the accelerating growth rate of couponing the last three years has been brought on by economic conditions which have had consumers upset whenever they set foot in a supermarket. Inflation has forced food prices to higher and higher levels. Consumers are now 'shopping' more for their merchandise. Housewives are preparing shopping lists, buying less impulse and convenience goods, comparing prices of one store with another, paying closer attention to weekly food store newspaper or flyer advertisements, and shopping at more retail stores (Family Circle, 1975). Her reward for this extra time and effort is to save a few pennies on her food bill and make her dollar stretch a little farther.

Coupons are an important means of saving appreciable amounts of money. Marketers have been quick to realise the importance of coupons to the shopper. In the United States, A. C. Nielsen estimates that in 1975, 65% of all households use coupons as an integral part of their shopping habits. This is up from 58% who used them in 1971. The U.S. Newspaper Advertising Bureau estimates that nine out of ten housewives redeem coupons of which 55% redeem frequently and 45% occasionally. Nielsen's research suggests that 48% of all consumers actively search out coupons while an equal number, will use them if they happen to run across them. In 1973, 56% of all households in Canada were using coupons (Nielsen, Canada 1973).

## II. PROBLEM DEFINITION

### 1. Definition of a Cents-Off Coupon

A cents-off coupon is a certificate that when presented for redemption at a retail store, entitles the bearer to a stated saving on the purchase of a specific product.

### 2. Who Issues Cents-Off Coupons

Coupons are issued by product manufacturers, retailers, and sometimes by wholesalers and distributors. A manufacturer's, wholesaler's or distributor's coupon, provides the coupon user with an opportunity to purchase the couponed product at a saving in any retail outlet stocking the product. The manufacturer rebates the store the value of the coupon as well as a handling fee. Coupons are the same as money and are accepted as cash by retailers if redeemed in accordance with the terms of the offer printed on the coupons.

A retailer "in ad" coupon is a special type of coupon authorized by a manufacturer by means of an agreement with a retailer. In many respects they are similar to regular cents-off coupons issued by a manufacturer, the main difference being, retail "in ad" coupons can be redeemed usually at only those stores issuing the coupons, and the redemption period is much shorter. Some retailer "in ad" coupons, those for store brands, have no agreement with the product manufacturer, but are authorized by the food store itself. Occasionally, competitive retailers will accept each others coupons if the couponed brands are available in their stores.

### 3. Methods of Coupon Distribution

A manufacturer's coupon may be distributed in a variety of different ways, the most common being: newspaper or magazine; direct mail drop (by a single or group of manufacturers, or by a co-op mailing house); in or on-package of that particular brand or some other brand; in-store handouts; egg cartons; vending machines; radio stations; shopping bags; with product samples; and in many other ingenious and creative approaches. An "in ad" coupon is included in the retailer's newspaper or handbill advertising. The coupon issuer may choose from these varied methods in which to deliver his coupon program. As is indicated later, these various approaches result in different redemption rates and have different costs.

A 1973-1974 study of Canadian coupon distributions by Nielsen Clearing House found that 31.7% of coupons were distributed in newspapers, 21.6% delivered to the household (direct mail), 19.3% appearing in or on a package, 16.6% in newspaper supplement and magazine publications, 10.4% in controlled circulation magazines and .4% of the coupons distributed in-store.

In the United States, a 1974 Nielsen study revealed quite different coupon delivery patterns. Newspapers accounted for 51.8% of coupon distributions, newspaper and magazine supplements 12.7%, free standing inserts in magazines or newspapers 7.0%, magazines 16.7%, direct mail presentations 4.6% and in or on package coupons 7.2%.

#### 4. Pro and Con: Newspaper, Magazine, Direct Mail, Package Coupons

The delivery of coupons in printed publications offer certain advantages to issuers of coupons. The distribution cost is low in relation to the total number of coupons distributed. Redemption levels are generally low. There is a certain amount of "selectivity of market" in media couponing. The editorial policy of the publication makes this selectivity possible since magazines appeal to different types of readers. Another possible advantage is that media couponing, particularly newspapers, can be activated quickly.

The disadvantages of newspaper and magazine coupons are their difficulty and handling, sorting by a retailer. Shoppers often tear coupons out of printed material leaving their edges ragged and torn. Coupons vary in size and type of paper stock. With coupons in newspapers and magazines there is always a high risk of fraud. Customers and retailers have been known to clip coupons out of publications and present unusually large numbers of redemption. Mis-redemption of coupons is an ever growing problem, and one which is gaining greater attention.

Direct mail couponing has certain strenghts not matched by other methods of coupon distribution. It provides excellent unduplicated coverage of households and can be selective of recipients thus making it an effective couponing vehicle. Its redemptpion rates are usually higher than magazine or newspaper.



On the negative side, a direct mail coupon can be costly if mailed by itself, but fairly economical if mailed with other participants. Multibrand mailings, stuffed in a special envelope drawing consumer attention to the coupon savings, may be issued by one manufacturer, or the mailing may include coupons from several manufacturers. These 'coop' mailings are usually originated by a mailing house, and although a participant loses flexibility in timing he gains considerable economy in their distribution since the mailing cost is in effect shared by all participants.

In-package couponing is another method of coupon distribution with generally high redemption rates since it is directed to an audience of present users. Consumers are given the incentive to re-purchase the product, and the marketer the opportunity to strengthen brand loyalty, increase consumption among present users, or deal with competitive pressures from other brands. The coupon is inserted in a package or printed on the package giving a low distribution cost, this being the printing and inserting of the coupon. Cross couponing occurs when the coupon is carried by a different product than the one being couponed. Both in-pack and cross-couponing have the disadvantage of having a limited reach on new prospects for the brand.

5. Problems associated with couponing.....  
A management perspective

There are a number of key problems associated with couponing. A very fundamental question which all marketers should ask themselves is under what conditions is couponing an effective strategy in the overall marketing plan for a product? Many organizations allied to couponing feel that it can cure all marketing problems from new product introduction, to obtaining retailer listings, to giving new life to a worn out brand.

An issue which marketing literature has given little consideration are products and product categories which may coupon more effectively than others.

Is a cents-off coupon likely to lead to transitory purchasing patterns by consumers, or can brand loyalty be established?

How important is the value of the cents-off coupon, or in other words, what is the effect of value on redemption? Studies by magazine publishers and clearing houses have not been able to resolve these important questions. Their findings have been contradictory and incomplete.

Considerable attention has been focused on the development of new methods of coupon distribution. Many of the new forms of coupon distribution are extensions of the traditional couponing methods; newspaper, magazines, direct mail and package. Which of these methods produce the most effective coupon return?

Closely akin with the coupon distribution method are the costs and benefits pertaining to each. A marketer must select a method which will maximize his benefits and minimize his cost. As yet no useful model exists by which marketers can resolve this important question.

Finally, no model has been designed identifying a number of variables affecting coupon redemption rate and permitting a marketer to predict the coupon redemption rate of a cents-off promotion.

#### 6. The Purpose of the Research Paper

The purpose of the research paper is to take an indepth look at couponing and study a number of variables which are likely to affect the redemption rate of a cents-off coupon.

Three different models have been designed. First, a Conceptual Model describes a consumer's behavioral pattern and use of a cents-off coupon. Second, the FAVCOC-R Model provides marketers with a look at the total costs and benefits of a coupon promotion. Third, the Multiple Regression Model provides marketers with a means of predicting coupon redemption rates.

### III. A CONCEPTUAL FRAMEWORK

#### 1. A Conceptual Coupon Model

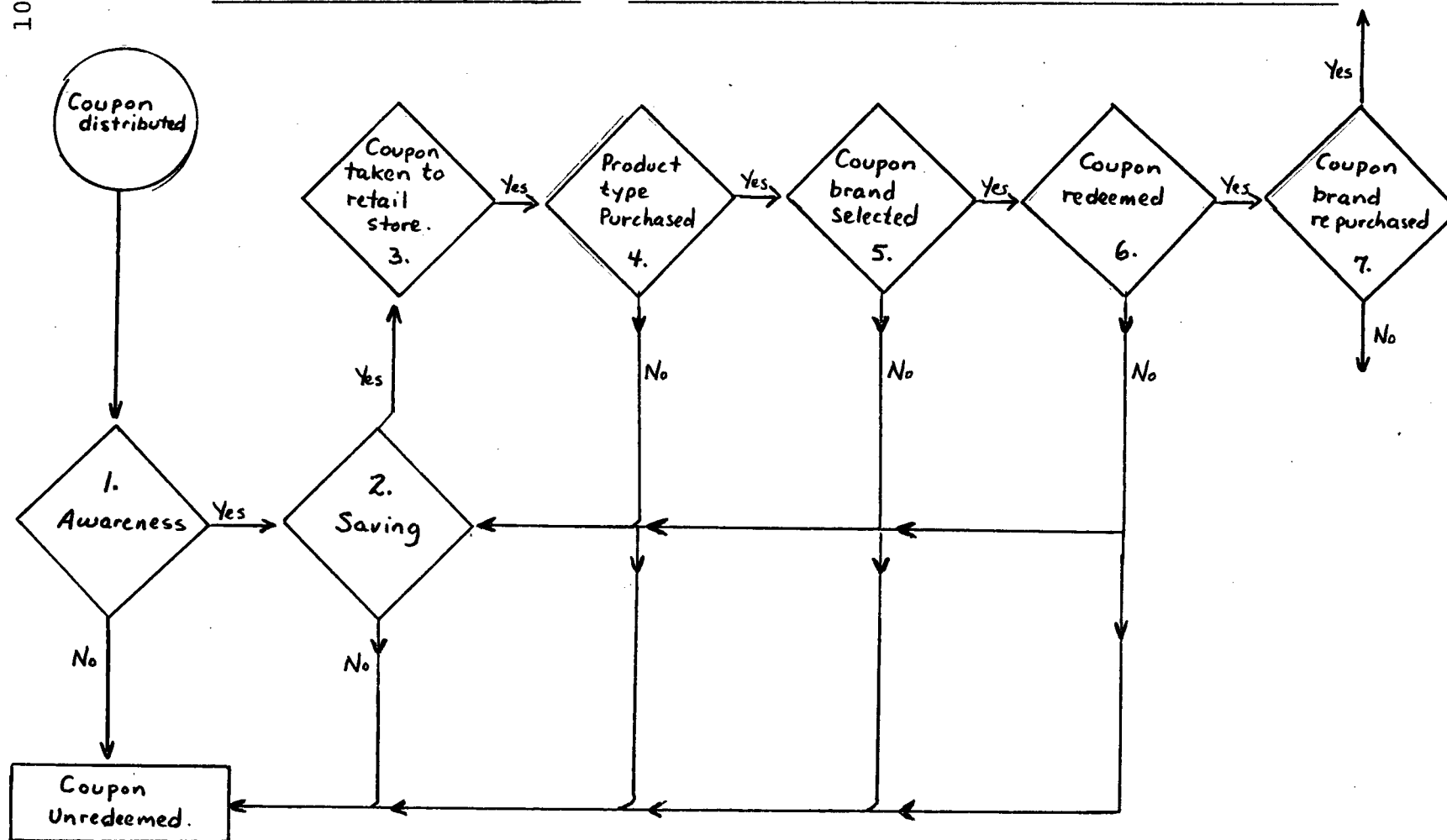
Coupons are a merchandising tool which has been receiving greater and greater attention each year by both marketer and consumer. When coupons are distributed by a product manufacturer, retailer, wholesaler or distributor it is important for the marketer to understand their effect on buyer behavior. Many marketers have probably wondered why their cents-off promotions have failed to meet their objectives. An examination of each of the stages of the conceptual model may suggest some of the answers. The model provides the background and foundation from which later quantitative and predictive models will be constructed.

The objective of the conceptual coupon model is to describe the decision alternatives facing a consumer who receives a coupon. An understanding of this model will provide a product manager, brand manager or marketing practitioner with a means of evaluating the degree of effectiveness of a coupon merchandising program as well as providing a keener comprehension and awareness of the many associated variables.

The conceptual coupon model, figure 1, describes the alternative courses of action which may be chosen by a consumer when a coupon offer is encountered.

FIGURE 1

CONCEPTUAL COUPON MODEL: STAGES LEADING TO POSSIBLE COUPON REDEMPTION



### Coupon Awareness - Stage 1

Stage one of the model concerns coupon awareness. When a coupon drop is made to a market segment, the marketer's objective is to have that coupon seen by as many prospects for his product as possible. The awareness of the cents-off coupon may come from a product being advertised which has a coupon incorporated in the ad, it may be a free standing coupon bound into the magazine, it may be a coupon distributed by a form of direct mail to the household, it may appear on or in a packaged product, or it may be distributed in some other manner. The awareness for the cents-off coupon may come from other sources also; consumer's word of mouth, in store merchandising, advertising, etc. If the cents-off coupon is not seen by the shopper, for the purposes of the model it is not used and is unredeemed.

Many factors may influence coupon awareness, the most important being the coupon distribution method, competitive activity within the product category, and the individuals needs, motives, values, attitudes about coupons, the product category and specifically the brand being couponed.

Coupon distribution methods vary. With some methods, coupon awareness may be very high while with others it may be quite low. A shopper receiving a coupon on entering a super-market is more likely to observe this coupon than one tucked away in a newspaper or magazine advertisement. At the time of a coupon drop, consumers may be bombarded with coupons from

other marketers. If the coupon activity level is very high, it is conceivable that some coupons may be unnoticed by individuals who normally use coupons, and who use brands within the product category couponed.

A consumer's perception of coupons is likely to have a large influence on coupon awareness. Individuals, using cents-off coupons in their every day shopping, probably view coupons in a very positive manner, and actually search out coupons in newspapers, magazines, direct mail, while non-users of cents off coupons are more likely to pay little attention to them since their attitudes toward coupons are disapproving. If an individual's perception of a product category or specific brand is low then it may be quite conceivable for a coupon directed to that consumer to go unnoticed.

### Coupon Saving - Stage 2

Stage two of the conceptual model involves coupons being saved by a potential user to a couponed brand. Coupons which are not saved, traded or expired and thrown away are unredeemed.

Coupons may be saved for varying lengths of time, from a few minutes in the case of an in-store coupon drop, or up to a year or longer for newspaper, magazine, package or direct mail distributions before they are either taken to the store or thrown out. The longer the couponer saves the coupon the less likelihood of that coupon being taken to the store and

redeemed. Therefore, as the period of saving increases, the probability of redemption decreases. (Nielsen Clearing House, 1974).

Saving a coupon may be a difficult process for consumers. When the coupon is received in the home, one must remember to save it. This may involve clipping the cents-off coupons from a magazine or newspaper after it has been read, setting aside a coupon delivered through the mail box, and remembering to cut or save a coupon appearing in or on the package. The coupon must be placed in safe keeping; a file, a purse, or drawer, until it is required, then taken to the store, and finally used in the store for the purchase of a specific product. In many instances, consumers forget to take a coupon to the store, forget to use the coupon in the store or are unable to find the couponed product on the store shelf. Each time an obstacle is placed in the path of the consumer, the chance of that coupon being redeemed lessens.

There are many factors which may influence the saving component of the model. The cents-off level offered the couponer may be important. If the face value of the coupon is low, it may be too small to motivate the shopper to save, even though the product category and possibly the specific brand are purchased. Higher face values may ensure consumers saving the coupons.



Many consumers save coupons out of habit. These shoppers realize that coupons are a means of reducing their total expenditures on foods, drugs, toiletries, and sundry items. Habitual coupon savers may be of two types, those who initially save all coupons, then sort or trade the unuseable from the useable, and those individuals who save coupons for only those products they now use or are likely to use in the future.

The discount a shopper receives on the purchase of a product by using the coupon may also be important to the couponer's decision to save. A coupon providing for a large discount on a product may be more attractive to a shopper than one with a small discount.

Selective retention may be important in understanding 'saving' in the model. Consumers can become committed to either the use of coupons or use of a particular product or product group. Strong commitment to either is manifested in the form of coupon, product group or brand loyalty. If the coupon does not challenge a strongly held commitment to a product or product group then there is a good likelihood of the coupon being saved. If the coupon is for a product or product group to which the consumer is strongly committed then again the probability of the coupon being saved is excellent. However, if the consumer is already strongly committed to a particular brand, and the coupon is for a similar product, the likelihood of the coupon being saved is lessened, since such individuals are reluctant to change

loyalties because of their deep involvement with the favored brand.

The coupon distribution method may be an important factor in coupon saving. Those methods of coupon allocation making for easier clipping, sorting, handling, and recall of the coupon may be more likely to be saved by the consumer.

### Coupon Taken to the Store - Stage 3

The third stage of the conceptual model deals with shoppers taking coupons to a retail store. A coupon not taken to the store remains in saving, and is eventually thrown out by the consumer when the need for it is passed or when the coupon redemption period has expired.

Shoppers using coupons regularly, probably do so out of habit, while those using them occasionally may rely more on the impulse nature of the couponed product and their pre-disposition toward the brand or product group.

The strength of a brand's total marketing activity; advertising, sales promotion, merchandising, distribution, salesmanship, product quality and price, will probably have an effect on coupon redemptions. If the product is well positioned in the market place and the cents-off promotion is supported with strong marketing activity, redemption should be better than a product which is supported with little or no marketing activity and is poorly positioned in the market place and in the mind of the consumer. Products with weak marketing activity may find their coupons saved but seldom

redeemed.

Coupons for products purchased frequently or for classes of products brought repeatedly provide the couponer with more occasions to take the cents-off coupon to the store and use it. Products or classes of products bought infrequently increase the chance that the coupon may be forgotten by the consumer and be unredeemed.

#### Product Type Purchased - Stage 4

At this stage of model development it is interesting to investigate whether the product category for which the coupon was issued, was purchased. Since the coupon was taken to the store, the consumer had every intention of redeeming the coupon. If the coupon was taken to the store and a product in the couponed product group was not purchased, the cents-off coupon may be thrown out by the shopper and be unredeemed, or returned to the purchaser's collection of saved coupons.

It is also important to consider the possibility that even though the consumer had a coupon for a particular product category, the coupon may not have been taken to the store, yet the couponed brand or another brand in that product category purchased.

For the purposes of this paper and later model development, products have been categorized into: food items, household products and drug/toiletry items. Consumers purchase products within these categories at varying rates of frequency.

Coupons issued for brands within product categories which are frequently purchased probably have higher rates of redemption than brands within product categories which are infrequently or irregularly purchased. Since coupons for frequently purchased items provide the shopper with more opportunities to buy the product and redeem the cents-off coupon.

A consumer's commitment (habit) to a product category or specific brand will likely influence that shopper's acceptance or resistance to a coupon for a product group or brand not purchased before. If a buyer's commitment to a brand is very strong there is little likelihood that the coupon will be effective in changing ones purchasing pattern. If the commitment is weak, the coupon may be successful in altering ones brand selection.

#### Couponed Product Selected - Stage 5

The fifth stage of the conceptual coupon model considers shoppers using the coupon toward the purchase of the couponed brand. Consumers may take the cents-off coupon to the store and forget to use it, but still purchase the coupon brand. In most instances, if the couponed brand is purchased the coupon is likely to be used. A shopper not selecting the couponed brand, may throw the coupon out, trade it or save it again. The couponed brand may be selected even though the shopper does not take the coupon to the store. The coupon, solely or in conjunction with other marketing forces, may have precipitated a buying response even though it was not used in the

actual purchase of the couponed product.

There are a number of factors which are likely to affect the purchase of a couponed brand. The couponed brand must be in stock on the retailer's shelves when the shopper decides to use the cents-off coupon. The couponed brand must be readily found by the shopper. With thousands of different items carried on a supermarket shelf, the shopper must have a reasonably good idea where it will be displayed. The consumer must remember to search out the couponed product in the supermarket. Individuals using shopping lists may be more likely to recall a couponed brand than those not using one.

A consumer's brand loyalty to the usual brand may influence the purchase of a couponed product. Individuals may be loyal to a brand for different reasons. If the brand loyalty exists because of an intrinsic preference for a product, the influence of a coupon may have little effect in changing an established purchasing pattern. If the brand loyalty is the result of weakly held product preferences, the coupon may be very successful in altering one's choice of a product.

A consumer entering a supermarket may have every intention of purchasing a couponed product, however, strong marketing activity by the regular or some other competitive brand, may shift shopper attention and interest elsewhere. A consumer's preception of a couponed product may vary when seen for the first time on a store shelf. A product which appeared worthwhile in an advertisement, may become unattractive in reality.

A shopper must be willing to try new innovations. An individual's personality may be an important variable in determining one's innovativeness in searching for new products.

#### Coupon Redemption - Stage 6

The sixth stage of the conceptual model deals with coupons which have been redeemed in the store for the couponed item. Redemption insures a marketer that his brand has been purchased, and possibly tried by a prospective user. Product trial provides the user with an opportunity to estimate the utility of the product and decide whether or not to make full and regular use of the innovation.

Most shoppers buying a couponed brand probably remember to use their cents-off coupon, however, in the sometimes chaotic activity at the checkout counter, others may forget. The consumer may return the cents-off coupon to saving, or throw it out, particularly if the brand is not adopted.

#### Summary of the Conceptual Coupon Model

The conceptual coupon model described a series of consumer buying decisions from the time a cents-off coupon is dropped in market area until a definite purchasing pattern had been established by the couponer. Coupon Awareness, Coupon Saving and Coupon Usage are the three main components of the model. Stage one of the model discussed the importance of coupons being seen by their prospective users. Stage two examined

coupon saving and its complexities, while Stages three, four, five and six investigated coupon useage and the events leading to coupon redemption.

## 2. The Conceptual Coupon Model - Controllable Variables

A brand manager or product manager, examining the series of events in the conceptual coupon model, soon realizes there are some redemption variables over which he has control, and others over which he has none. Redemption rates vary for different coupon distribution methods. In selecting a type of coupon method, one should choose the method which will reach efficiently prospects for the brand while staying within budgetary guidelines.

A second controllable factor is the value of the cents-off coupon. Redemption rates, budgetary limits, competitive couponing activity and the suggested retail selling price of the brand should be considered when establishing the worth of the coupon.

Brand loyalty for a product is determined largely by the total marketing activity expended in positioning the product favorably in the mind of the consumer. Consumer franchise for a product is therefore a controlable factor by marketing executives. Brand loyalty for a couponed product probably has an important effect on the number of consumer coupons redeemed.

The merchandising support given a coupon promotion by a manufacturer's salesforce can effect redemption rates. Use of

point of sale material, increased product facings, product location in-store, acceptable out of store pricing, product availability, trade communication and cooperative advertising support are all variables which are directly controllable by the marketer. Retailers may be unaware of coupon drops. Their inventories of the couponed product may be low or out of stock and consumers disenchanted in being unable to find the brand on store shelves. Marketers can easily improve redemption rates for their products by being more cognizant of these problems.

A marketer selects likely coupon prospects within a geographical area. The demographics of the market should correlate with established consumer product profiles. Proper selection of a market area and individuals in that area will improve the redemption rate for the cents-off coupon. Poorly chosen market segments will likely result in few coupons being redeemed.

Proper timing of a cents-off promotion can be a key to its success. With most types of cents-off coupons, a marketer selects the period of time when he expects his promotion to have greatest impact in the market place.

In conclusion, a marketer in planning a cents-off promotion should be expected to have direct and immediate control in selecting the method of coupon distribution, coupon value, the merchandising and promotional activity supporting the coupon, the timing of the coupon drop, the coupon drop area, and the



households receiving the coupon. It may be more difficult for one to manage the effects of the brands' total marketing activity and loyalty on coupon redemption.

### 3. Evidence of Controllable Factors Affecting Coupon Redemptions

#### i. Coupon Value

Coupon value may be important to a cents-off coupon promotion. It has the dual purpose of possibly affecting rates of coupon redemption while being a significant marketing cost which must be budgeted based on projected coupon redemptions.

The importance of coupon value on redemption is by no means clear. Nielsen Clearing House (1975) suggests that there is not always a direct correlation between coupon value and redemption. There are many instances of coupons with medium or lower values redeeming as well as higher ones. Nielsen Clearing House (1975) estimated that 35% of coupon users are not influenced by the value of the coupon and would use a coupon regardless of its value; another 33% felt that 5 cents offered enough inducement for them to consider using the coupon; and the remaining 32% were influenced by coupon values ranging from 10 cents to 20 cents or more.

Reader's Digest (1975) found that higher coupon values usually resulted in increases in the rate of redemption and a frequently purchased product generally had a higher redemption than a low turnover item bought less often.

Women's Day Magazine found that the value of a coupon did affect redemption. For a paper product, a 10 cent coupon out pulled a 7 cent coupon by 7%, and for a toiletry item, a 20 cent coupon out performed a 15 cent coupon by 16%, and a 25 cent coupon out pulled a 15 cent coupon by 51¢ (Women's Day Magazine, 1972).

ii. Coupon Distribution Method

There appears to be a direct relationship between redemption rates and type of coupon distribution. Coupons handed out in the store achieve the best results. Nielsen Clearing House (1975) estimates average redemption for in-store distribution to be 34.5% in Canada for 1974. Consumers being in a purchasing environment probably account for this high redemption level. Newspapers are at the other end of the redemption scale with coupons from this vehicle pulling poorly. Nielsen Clearing House (1975) estimates average Canadian redemption for 1974 newspaper coupons to be only 1.3%, while in the United States, the corresponding redemption rate is 2.4%. Even with low redemption rates, newspapers are by far the most popular and most used coupon distribution method (Nielsen Clearing House, 1975).

Table 1 compares Canadian and American redemption rates for different methods of coupon distribution.

Table 1

Comparison of Canadian and American Coupon  
Redemption Rates for Selected Distribution Methods

<u>Coupon Distribution Method</u>	<u>CANADA</u>	<u>UNITED STATES</u>
	<u>Average Rate of Redemption</u>	<u>Average Rate of Redemption</u>
1. In-store drop	34.5%	N/A
2. In-pack self	24.4%	23.1%
3. On-pack self	11.1%	15.2%
4. Household direct mail	13.0%	11.7%
5. Newspaper Supplements	2.0%	3.1%
6. Magazine pop-up	4.1%	9.1%
7. Magazine on-page	1.4%	3.5%
8. Newspapers	1.3%	2.4%

Source: A special study of 466 Canadian Coupon

Promotions, Nielsen Clearing House - Canada, 1975

Reader's Digest (1975) studied the redemption rates of different types of magazine coupons found in their publication. Pop-up coupons performed the best having a 7% redemption rate, followed by gatefold coupons with 5%, multi-coupons on a page titled Carolyn Davis Shopping Values with 4% and single on page coupons with 3%.

Copies of Reader's Digest magazine with coupons sold at the newstand had significantly higher coupon redemption rates 11.2%, than the identical subscriber publications, 3.7% (Reader's Digest, 1975).

### iii. Brand Loyalty

Limited consumer reasearch is available in explaining the effect of brand loyalty on coupon redemption. A study by Women's Day Magazine (1972) found that 58% of the surveyed group of consumers regularly purchased the couponed brand. This may suggest that coupons may be effective in holding consumers to established brands. 28% of the surveyed group used the coupon to buy items they ocassionally purchased, reflecting possibly a coupon's ability to stimulate re-purchase and create new interest in a brand. 14% of the consumers in this study had never bought the couponed brand before.

Nielsen Clearing House (1975) studied the repurchase patterns of consumers who received a coupon in the package of the brand they bought. 84% of these buyers indicated that these coupons had a strong influence on the following purchase of that brand, while 16% stated their purchasing habits were

not influenced by the coupon in the package.

iv. Product Category

Coupons are used by marketers in nearly every product category, food items, household products, toiletry items, and drug products. Within these categories more and more coupons are being used each year. Nielsen Clearing House (1975) reported that almost all (99% and 90%) of the coupon users used cents-off coupons for food items and household products, while 7 out of 10 coupon users used coupons on the purchase of toiletry products and almost 40% used coupons to buy drug items. A study by Reader's Digest (1975) showed paper and plastic items to have the highest redemption rates - 8.3% of all product categories, followed by household soaps and cleaners - 5.1%, and food items - 5.0% and toiletries and proprietary drugs at 2.6%.

Within the food product category, the top three redeeming products were coffee, 8.7%; margarine, 6.3%; and ready to eat cereals, 5.4%. The poorest redeemers were diet foods, 3.2% and pet foods, 3.0%. Within the household product group, liquid soap, 7.7% and soap bars, 7.3% redeemed best, while soap powder, 4.2% and household cleaners 1.5% were poorest. In the proprietary drug and toiletry category - tooth paste, 4.2%; shampoos, 3.4%; and mouth washes, 3.4%; proprietary drugs, 3.1% redeemed best, while deodorants, 2.6% and denture products, 2.5% fared poorly.

This study may suggest that product categories and specific products which are used more frequently by consumers, tend to have higher rates of coupon redemption than product categories or specific products which are used less frequently, and in small amounts.

v. Place of Buying

A consumer's place of buying may be an important variable in coupon redemption. If a consumer normally buys the couponed brand in an outlet which is visited less frequently than some other outlet which also stocks the brand, a marketer has less chance of that coupon being redeemed unless he can switch the consumers place of buying to an outlet which the shopper visits more frequently. Women's Day (1972) found in their study that almost 2/3 of the toothpaste coupons were redeemed in a supermarket, 20% in a drug store and 18% in a discount store. Other health and beauty aids followed a similar pattern. A marketer will probably receive a better redemption for products that are normally bought in the supermarket, rather than those normally bought in the drug store.

vi. Rate of Discount (Percent of Selling Price)

How important is the rate of discount of the coupon in comparison to the selling price of the couponed brand? Women's Day Magazine (1972), found that the higher rate of discount of the coupon in comparison to the selling price of the brand, the higher the redemption rate. When the rate of discount was

less than 20%, the average redemption was 6.4%, with the rate of discount between 20% to 33%, the redemption rate rose significantly to 9.5% and when the consumer could realize a discount greater than 33% on the brand she purchased, the average coupon redemption rate jumped significantly to 15.5%.

Consumer attitude studies by Women's Day Magazine suggest that higher discount rates rival sampling as an important merchandising tool. However, for a consumer to perceive a high discount rate, she must be first familiar with the selling price of that brand.

#### vii. Stock-outs (Market Share)

It's important for a marketer to be sure of good distribution for his brand before launching a cents-off coupon promotion. Nielsen Clearing House (1975) found "stock-outs" to be a serious marketing problem. 46% of coupon users reported occasions when their supermarket did not have the couponed product. Many store managers interviewed in the Women's Day study (1972) felt that many manufacturers did not give stores enough advance notice to order product, the result, stockouts.

#### viii. The Extent of a Brand's Marketing Activity

Apparently no consumer research is available to confirm or disprove the hypothesis that brands with strong marketing activity have better rates of coupon redemption than brands with weak or no support.

ix. The Value of the Couponed Product

There appears to be no research on the effect of product value on coupon redemption. Does a coupon for a high value item have a better rate of redemption than one for a low ticket item? A marketer determines the value of the coupon in relation to the selling price of the item. If the selling price of the item is high, then likely the cents-off coupon will be worth more.

x. Misredemptions

A variable often overlooked by marketers when planning a cents-off coupon promotion are misredeemed coupons. Some magazine publishers suggest that misredemption of cents-off coupons is grossly overstated, (Women's Day Magazine, 1972) however, a study by Progressive Grocers Magazine in 1974 quoted misredemptions as high as 30% on manufacturer coupons. The Grocery Manufacturers of America estimate that up to 200 million dollars a year may be siphoned off by misredemptions which, if correct, costs marketers as much as 2/3 of a cent for every coupon distributed. (Progressive Grocers Magazine, 1974). The Grocery Manufacturer's Association estimate that 20-30% of the coupons redeemed are cashed fraudulently, however, no one knows for sure the seriousness of the problem (Progressive Grocers Magazine, 1974). A Nielsen Clearing House official in the United States judges that probably one out of every seven coupons coming through the clearing house may be questionable. (Wall Street Journal, 1976)



Misredemptions probably varies between geographical areas, type of coupon distribution method, its face value and by marketer. Those aware of the possible seriousness and magnitude of the problem, have built careful controls to minimize this fraudulent practice by some retailers, underworld coupon syndicates and deceiving shoppers. The Supermarket Institute reported in their November 1975 survey that 11% of the shoppers polled were either prepared to cash coupons for products they hadn't bought or were actually doing it (Wall Street Journal, 1976).

xi. Summary of Evidence

A review of the evidence of controllable factors affecting coupon redemption shows that first, the effect of coupon value on redemption is by no means clear, however, there is substantial support to the hypothesis that higher coupon values increase the coupon redemption rate. Second, the method of coupon distribution selected apparently affects the rate of redemption of cents-off coupons. Third, coupons may be a means of ensuring repurchase and brand loyalty. Fourth, the rate of redemption seems to vary for different product categories and specific products within those categories. Fifth, a product purchased in a supermarket probably shows a higher redemption rate than the same bought in a drug store or discount store. Sixth, the larger the rate of discount as a percent of selling price of an item, the higher the coupon redemption rate is likely to be and

seventh, stock-outs of the couponed product in stores probably result in fewer coupons redeemed.

Misredemption of cents-off coupons may be a growing problem which marketers should try and control when planning a coupon promotion.

#### IV. A MANAGERIAL EVALUATION OF CENTS-OFF COUPON PROMOTIONS

##### 1. Types of Couponing Costs

Management, must have a clear and precise understanding of the costs and benefits of a cents-off coupon promotion to judge its feasibility. The 'FAVCOC-R' (Fixed and variable costs of couponing and returns) quantitative model has been designed for this purpose. It provides marketers with a description of the types of costs which are normally associated with a coupon promotion and the revenue benefits which can be expected from consumers using the coupon, trying the brand and then adopting it in their buying process.

To understand the cost section of the 'FAVCOC-R' model, it is useful to segment the fixed and variable costs. Generally the fixed cost section of the model will account for the largest portion of cost since it concerns the method of coupon distribution.

For purposes of this model, once a marketer has decided the number of households he wishes to reach and which method of coupon distribution to use, the cost of reaching a market becomes a fixed cost. If a direct mail coupon is chosen, the cost of printing and distributing it is fixed. If a coupon is included in either a magazine or newspaper, the space cost for the advertisement as well as the cost of producing the ad is fixed; as is the expense of artwork and printing for a package coupon.

Three important variable costs must be considered in the model, the value of the coupon, the retailer's coupon handling charge; a coupon Clearing House service charge if such an organization is used.

Consumer's view cents-off coupons as good as a cash saving on the purchase of a couponed brand. The retailer on receipt of the coupon must give the consumer the value of the coupon in cash as long as the terms of the coupon offer have not been violated. The marketer distributing the coupon must rebate to the retailer the value of the coupon as well as a handling fee for processing the coupon. If a coupon clearing house is used, the marketer must consider their service charge. A coupon clearing house can relieve a manufacturer of the tedious detail and administrative work associated with arranging payment of the coupon value and handling fee to retailers for redeemed coupons. For example, a marketing manager issuing a coupon worth 15¢ must pay an additional 5¢ to the retailer for redeeming the coupon and, if a coupon clearing house is used, a further 1/2 to 2 cents depending upon the number of coupons handled, for their service charge. One of the largest clearing houses in the United States estimates that between 2/3 and 3/4 of all coupons go through a clearing house (Nielsen Clearing House, 1972).

## 2. Types of Revenue

To use the revenue section of the 'FAVCOC-R' model, a marketer must be able to obtain contribution margins for the specific product participating in the cents-off offer.

The revenue section of the model is derived from two sources, incremental buyers of the brand and repeat purchases of the brand by incremental buyers.

### i. Incremental buyers of the couponed brand

An incremental buyer is defined as one who would not have bought the couponed product without a coupon. There are two types of incremental buyers; first, the buyer who bought the couponed brand last time but would have switched if not for the coupon and second, the buyer who had not bought the couponed product before but purchased it this time because of the cents-off coupon.

### ii. Repeat purchases by incremental buyers

The repeat incremental buyer is defined as one who has purchased the couponed brand again. Repeat purchases by the incremental buyer group are an important goal for most marketers. Their purchasing patterns can decide the profitability of a cents-off coupon promotion since the goal of all coupon promotions should be that the cents-off coupon campaign should pay for itself from revenues generated by incremental repeat buyers.

Seldom does a coupon promotion pay for itself after one or two purchases by incremental buyers. Repeat purchasing by incremental buyers is probably a function of many variables; the degree of brand loyalty held by consumers for that particular product class, the amount of satisfaction derived from the couponed brand, the extent of competitive activity, the number of competitive brands available, the degree of perceived product differentiation between brands, the amount of consumer satisfaction derived from the former brand and specific consumer characteristics such as the amount of product used at one time, its frequency of use, and its availability in sizes, flavours and stores where ones normal shopping is done.

### 3. The 'FAVCOC-R Model

The primary purpose of the FAVCOC-R model is to help a marketer determine the total coupon promotion cost and the net return expected.

The underlying premise of this model and other models to be discussed, is that the cents-off coupon promotion should contribute enough revenue from incremental buyers so that all promotion costs are covered, and that the promotion at worst, breaks even.

A marketer, making certain assumptions about shopper behavior and considering promotion costs and revenues from incremental buyers may project what level of coupon performance is necessary for a cents-off promotion to break even.

The model is developed in three main stages. Stage one assumes that all users of coupons are incremental buyers of the couponed product. This may not be realistic unless one considers a product newly introduced to a market.

Stage two of the model recognizes that group of coupon redeemers who are incremental buyers. Not everyone redeeming a coupon will be an incremental buyer. The model is not concerned with those buyers who would have bought the product without the coupon (non-incremental buyers).

Stage three of the model recognizes that a proportion of incremental buyers will be repeat buyers of the brand and adopt the product. A marketer tries to recover his promotion cost from incremental buyers who do not fully adopt the product as well as those incremental buyers who buy it again. Stage three of the model also considers the average number of purchases of the incremental buyer group before defection to a substitute or competitive product.

i. FAVCOC-R Model - Stage 1

Assume all coupon redemptions are by incremental buyers with no repeat purchases.

$$R = r \cdot N \cdot \delta (MC) - r \cdot N(V + H) - DC \quad [1]$$

Where: R = Net return to the product from the coupon promotion where buyers give the brand only one trial.

$r$  = percentage rate of redemption

$N$  = total number of coupons distributed or circulated

$\delta$  = percent valid redemptions, that is, removing  
percent misredemptions

Thus,  $r \cdot N \cdot \delta$  = number of valid redemptions

$MC$  = product's marginal contribution per unit sold.

(net selling price less total variable cost per  
unit).

Thus,  
 $(r \cdot N \cdot \delta) MC$  = total contribution from coupon redemptions

$V$  = coupon value

$H$  = retailer handling charge and clearing house service  
charge per coupon redeemed.

Thus,  
 $r \cdot N (V + H)$  = total variable cost for redeemed coupons

$DC$  = total distribution or circulation cost of the  
coupon promotion.

## ii. FAVCOC-R Model - Stage 2

Assume a proportion of redeemers are incremental buyers

$$R_{\alpha} = \alpha (r \cdot N \cdot \delta) MC - r \cdot N (V + H) - DC \quad [2]$$

Where:  $R_{\alpha}$  = Net returns to the product from the coupon  
promotion where a proportion of incremental  
customers used the coupon.

$\alpha$  = proportion of redemptions that are incremental  
buyers

$\alpha (r \cdot N \cdot \delta)$  = the number of incremental customers using the  
coupon



$\alpha(r \cdot N \cdot \delta) MC$  = the contribution made by incremental customers redeeming the coupon.

iii. FAVCOC-R Model - Stage 3

Assume repeat purchases by incremental buyers

$$R_{\beta} = \alpha(r \cdot N \cdot \delta) (MC) - r \cdot N (V+H) - DC + \phi \beta [\alpha(r \cdot N \cdot \delta)] MC \quad [3]$$

Simplifies to:

$$R_{\beta} = (1 + \phi \beta) [\alpha(r \cdot N \cdot \delta)] MC - r \cdot N (V+H) - DC \quad [4]$$

Where:

$\beta$  = the proportion of incremental buyers that repeat purchase the coupon brand.

$\phi$  = the average number of repeat purchases

$(1 + \phi \beta)$  = the average number of purchases per incremental buyer:

$(1 + \phi \beta) [\alpha(r \cdot N \cdot \delta) MC]$  = the total contribution from incremental customers.

Equation [4] explains a normal couponing situation where the brand has an established core of regular users and an effort is made to enlarge the segment of consumers using the brand. It is most difficult when broadening a brand's market segment not to duplicate part of one's marketing effort on consumers presently purchasing the couponed product. If the duplication is great, it may cut sharply into the product's contribution since non-incremental buyers are receiving a discount on the purchase of a brand they would have bought without a coupon.

The successful evaluation of a cents-off coupon promotion hinges on two key variables: the number of incremental customers purchasing the couponed product and , their average number of repeat purchases.

iv. Case Example of the 'FAVCOC-R' Model

Following is a real market situation showing the application of the 'FAVCOC-R' model.

Consider a relatively new food product, on the market for just over a year, with a low market share but fair consumer awareness. A direct mail cents-off coupon promotion was selected. The promotional objective was to introduce new buyers to the brand thereby increasing market share.

Facts about Brand V were:

Direct mail coupon drop

$r$  = coupon redemption rate 1.5%

$N$  = number of coupons circulated 369,000

$MC$  = product's contribution to margin per unit 12 cents

$V$  = coupon value, 7 cents

$H$  = retailer handling charge and clearing house service charge, 7 cents

$DC$  = fixed cost of coupon circulation \$11,500

Estimates about Brand were: both pessimistic and optimistic estimates have been used in the model.

$\alpha$  = proportion of redemptions by incremental buyers  
of the brand, 25% to 75% range

$\phi$  = the average number of repeat purchases by incremental buyers of the brand ranged from 2 to 20 purchases

$\beta$  = the proportion of incremental repeaters of the couponed brand ranged from 25% to 75%

$\delta$  = percent of valid coupon redemptions were estimated at 93% (an estimated 7% of the cents-off coupons being misredeemed).

#### 'FAVCOC-R' Model Stage 1

Calculate the net returns of the coupon promotion assuming a single purchase by all coupon redeemers (all redeemers are considered incremental buyers).

$$\begin{aligned}
 R &= r \cdot N \cdot \delta (MC) - r \cdot N \cdot (V+H) - DC \\
 &= .015 (369,000) \cdot .93 (.12) - .015 (369,000) (.07+.07) - \\
 &\hspace{25em} 11,500 \\
 &= 5535 (.93) (.12) - 5535 (.14) - 11,500 \\
 &= 5148 (.12) - 775 - 11,500 \\
 &= 618 - 12,275 = \underline{\underline{\$-11,657}}
 \end{aligned}$$

The net return to the product given only one consumer purchase showed that the coupon promotion did not recover any fixed distribution cost, but actually increased the total promotion expense since the variable costs of coupon value and handling charges exceeded the product contribution per unit. The net returns from the promotion was  $\$-11,657$ . The number of coupons redeemed were 5,148 generating \$618 of revenue toward the \$775 of variable cost and \$11,500 of fixed expense.

'FAVCOC-R' Model Stage 2

Calculate the net return of the coupon promotion assuming a single purchase by only incremental buyers.

$$R_{\alpha} = \alpha(r \cdot N \cdot \delta) MC - r \cdot N(V+H) - DC$$

Pessimistic estimate of Net Returns for Brand V with 25% of coupon redeemers being incremental purchasers.

$$\begin{aligned} R_{\alpha .25} &= .25[(.015)(369,000)(.93)] \cdot .12 - .015(369,000) \\ &\quad (.07 + .07) - 11,500 \\ &= .25(5148) \cdot .12 - 12,275 \\ &= 1287(.12) - 12,275 = 154 - 12,275 = \underline{\underline{\$-12,121}} \end{aligned}$$

Optimistic estimate of Net Return for Brand V with 75% of coupon redeemers being incremental purchasers.

$$\begin{aligned} R_{\alpha .75} &= .75[(.015)(369,000)(.93)] \cdot .12 - .015(369,000) \\ &\quad (.07 + .07) - 11,500 \\ &= .75(5148) \cdot (.12) - 12,275 \\ &= 3861(.12) - 12,275 = 463 - 12,275 = \underline{\underline{\$-11,812}} \end{aligned}$$

The pessimistic estimate of the net return for Brand V showed that the coupon promotion netted \$-12,121 with the incremental buyers contributing only \$154 toward the fixed and variable costs. The optimistic estimate for the net return where 75% of the coupon redeemers were incremental buyers, showed that the promotion netted \$-11,812 and the incremental purchasers contributing \$463 toward the fixed and variable promotion costs.

'FAVCOC-R' Model Stage 3

Calculate the net return of the coupon promotion assuming a pessimistic and optimistic estimate of the average number of purchases by the repeat incremental buyers for Brand V .  
Pessimistic estimates of incremental buyers and their average number of purchases.

Assume:  $\phi$  , average number of purchases were 2

$\beta$  , 25% of the incremental group were repeat purchasers of Brand V .

$\alpha$  , the incremental group represented 25% of the coupon redeemers.

$$\begin{aligned} R_{\beta} &= (1 + \phi\beta) [\alpha(r \cdot N \cdot \phi)] (MC) - r \cdot N(V+H) - DC \\ &= [1 + 2(.25)] (154) - 12,275 \\ &= (1 + .5) (154) - 12,275 = \$231 - \$12,275 = \underline{\underline{\$-12,044}} \end{aligned}$$

Optimistic estimates of incremental buyers and their average number of purchases.

Assume:  $\phi$  , average number of purchases were 20

$\beta$  , 75% of the incremental group were repeat purchasers of brand

$\alpha$  , the incremental group represented 25% of the coupon redeemers

$$\begin{aligned} R_{\beta} &= [1 + 20(.75)] \$463 - \$12,275 \\ &= (1 + 15) \$463 - \$12,275 = \$7408 - \$12,275 = \underline{\underline{\$-4,867}} \end{aligned}$$

The marketer, using pessimistic estimates for  $\phi$  ,  $\beta$  ,  $\alpha$  showed that the cents-off promotion returned \$-12,044 to capture new purchasers of Brand V . Since the incremental

buyers bought an average of only 2 purchases of Brand V, the promotion failed miserably in breaking even. The incremental buyer group contributed only \$231 of revenue towards the fixed and variable costs of the promotion.

With the optimistic estimates used for  $\phi$ ,  $\beta$ ,  $\alpha$ , the cents-off coupon promotion came much closer to breaking even. The incremental buying group contributed \$7,408 of revenue toward the fixed and variable costs of the promotion resulting in a promotion deficit of only \$4,867.

#### v. Break-even analysis - - A model application

Break-even analysis is an important extension of the 'FAVCOC-R' model, permitting a marketer easy calculation of the break-even point for a cents-off coupon promotion in terms of the number of purchases by an incremental buyers.

Continuing with Brand V, the following pessimistic and optimistic estimates of incremental buyers were made.

#### Example: Pessimistic Estimate of $\alpha$

Suppose the pessimistic estimate for  $\alpha$ , the incremental buyers of Brand V was used, that is, 25% of the coupon redeemers were incremental buyers, how many purchases by each incremental buyer ( $\phi\beta$ ) was required for the coupon promotion to break-even?

$$BE_{\phi\beta} = \frac{[r \cdot N (V+H) + DC] - [\alpha (r \cdot N) \phi] MC}{[\alpha (r \cdot N) \phi] MC} \quad [5]$$

The numerator  $r \cdot N (V+H) + DC$  represents the total costs of the coupon promotion while  $[\alpha (r \cdot N) \phi] MC$  denotes the revenue

contributed by the incremental purchasers of Brand V .

$$\text{Therefore, } BE_{\phi\beta} = \frac{\$12,275 - \$154}{\$154} = 79 \text{ purchases required}$$

by each incremental customer for the coupon promotion to break-even.

Example: Optimistic estimate of  $\alpha$

Suppose 75% of the coupon redeemers are incremental buyers.

The revenue contribution by the incremental buyers was \$463, therefore the number of units bought by each incremental buyer for the cents-off promotion to break-even is as follows:

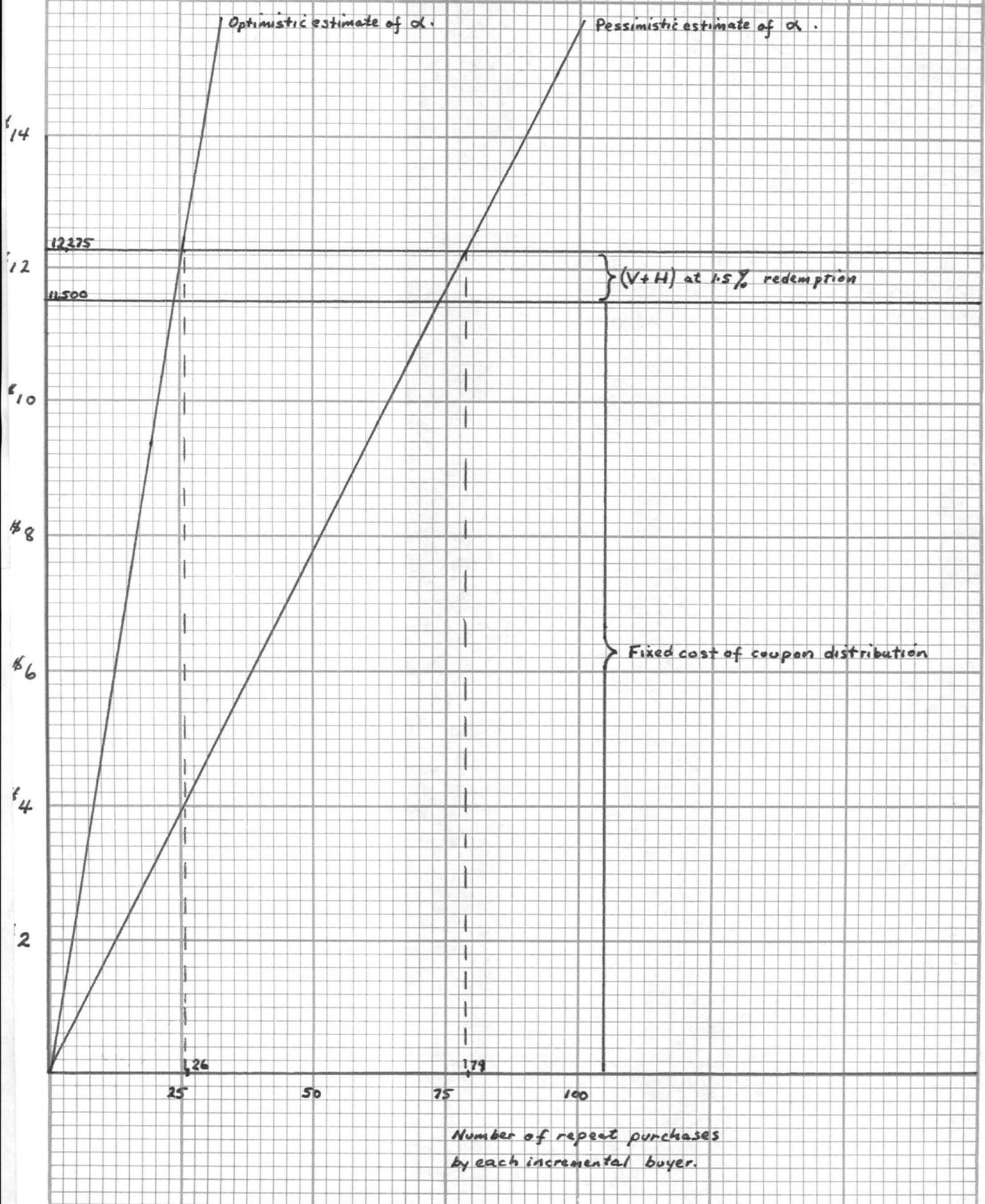
$$BE_{\phi\beta} = \frac{\$12,275 - \$463}{\$463} = 26 \text{ units by each incremental}$$

buyer.

The pessimistic and optimistic estimates of contributions by incremental buyers were obtained from Stage 2 of the 'FAVCOC-R' model (see page 42 ). Graphically the break-even analysis is shown by Figure 2.

FIGURE 2

## BREAK-EVEN ANALYSIS FOR INCREMENTAL BUYERS OF BRAND V





#### vi. Summary of 'FAVCOC-R' Model

The 'FAVCOC-R' model presented a method by which a marketer is able to assess the effectiveness of a cents-off coupon promotion by determining the net returns to the couponed brand. The number of coupons distributed, the brand's contribution margin, the coupon value, the retailer's handling charge and clearing house service charge and the fixed cost of coupon distribution are known pieces of information which the marketer has readily available. Estimates of the coupon redemption rate, the proportion of redemptions by incremental buyers of the brand, the average number of repeat purchases by incremental buyers of the brand, the proportion of incremental repeaters of the couponed brand and the percent of valid coupon redemptions must be made by the marketer for use in equation [4] in calculating the net returns to the couponed brand.

Break-even analysis is an important application of the model permitting calculation of the number of purchases by each incremental buyer.

#### 4. General Summary

In evaluating a coupon program, four assessments must be made by the marketer before the net returns for the couponed brand can be calculated. The net return from a coupon promotion is a function of:

- i. The redemption rate
- ii. The proportion of incremental buyers
- iii. The proportion of incremental buyers that repeat and their number of repeat purchases
- iv. The costs of couponing

##### Redemption Rate

One of the most important estimates a marketer must make, is to determine the expected redemption rate for a coupon promotion. Many variables may affect the number of coupons redeemed, however, in the following model, three main variables will be considered; the coupon distribution method, the value of the coupon, and the type of product. The extent of marketing support given the coupon promotion is a variable that can be built into a marketer's model, however, insufficient data made study of this variable impossible. These variables have been discussed earlier in the paper in developing the Conceptual Model.

##### Incremental Buyers

Incremental buyers are most important in determining the net returns of the coupon promotion. Revenues from the purchases by this group should pay for the cost of the cents-off promotion. A marketer must be able to estimate what share

of coupon redeemers are present brand buyers (non-incremental buyers), and what share are incremental buyers. The larger the incremental buyer group, the more successful the coupon promotion is likely to be.

Two important factors which probably have a significant bearing on the size of the incremental buyer group are the market share of the couponed brand and the coupon distribution method. The effect of these variables on coupon redemption has been discussed earlier in the paper.

#### Incremental Repeat Buyers

Incremental repeat buyers are those consumers who would not have bought the product without the coupon and repurchased. It is unrealistic to expect all incremental buyers to buy the couponed brand again. Such factors as the nature of the product, buyer habit, competitive brands and their marketing activity and the differential advantage held by the couponed brand over alternatives, will probably determine the number of repeat incremental purchases and the number of purchases made by consumers before defecting to a brand substitute.

#### Coupon Costs

The costs of a coupon promotion must be estimated before the net return from a cents-off promotion can be calculated. The method of coupon distribution, the value of the cents-off coupon and the estimated rate of coupon redemption will all have a significant bearing on the cost portion of the managerial model. Other variable costs such as misredemption,

retailer handling fee, and clearing house service charge also should be considered.

#### Estimating the variables in the Managerial Predictive Model

A marketing manager must develop a basis for estimating those variables in the predictive model. One method of assessing each of these variables is for the manager to make intuitive judgments for each of these variables. Another is for him to look at the past performance of coupon promotions run by his company or by other companies having similar type products and using similar coupon strategies. A third method is to conduct small pilot studies varying those variables in the coupon mix which are most difficult to predict. A fourth method of estimating the variables in the predictive model is to use one or more of the approaches outlined above.

In the following section, data was gathered to build a model which would aid a marketing manager in estimating the coupon redemption rate.

## V. AN EMPIRICAL INVESTIGATION OF COUPON REDEMPTION RATES

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### A Managerial Model for Estimating the Coupon Redemption Rate

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In determining the net return of a cents-off coupon promotion, the number of buyers redeeming the coupon is a key variable which should be predicted with as high a degree of accuracy as possible. With a coupon drop to one or two million households, a small variance in the estimated redemption rate can place severe budgeting and financial problems on the couponed brand. This paper will discuss a model which can be used by marketing managers for predicting the redemption rate of a coupon promotion.

#### i. Evidence of research to date for Predicting Redemption Rates

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The purpose of this study is to assess those factors which appear to influence the redemption rate of a coupon promotion. Trade research, conducted generally at a superficial level, by those organizations closely associated and identified with couponing has been reported earlier in the paper. Most of these organizations are selling a service and therefore the research presented is of a complementary nature. The research is generally of a simple two-way comparison, such as; redemption versus face value of a coupon, redemption versus product categories, redemption versus type of coupon distribution, redemption versus the rate of discount offered via the coupon on the product. The methodologies and findings varied significantly from study to study.

## ii. Problems with Existing Research

Serious problems were encountered with existing research on coupon redemption. First, studies failed to report what proportion of the differences in redemption rates could be explained by differences in other variables, (or how accurately would knowledge of the other variables have predicted redemption). Second, since only 'two-way' comparisons were used throughout the studies, researchers made no attempt to explain redemption if several predictor variables were considered.

## iii. Data Base

A Canadian clearing house (Herbert A. Watts) supplied a small cross section of data from 212 separate Canadian coupon promotions ranging from In or On-package coupons, direct mail coupons, newspaper coupons and magazine coupons for the period 1973 - 1975. The coupon promotions represented food products, which were frequently purchased, food products infrequently purchased, household products and drug and toiletries, all products found in a neighborhood market or supermarket. Redemption rates as well as coupon values were given for all cents-off promotions. Only those promotions which gave redemption after 12 months from commencement of the promotion were used since most coupon promotions reach almost complete redemption by this time (Nielsen U.S., 1975).

The data enabled a model to test the effect of a number of factors on coupon redemption rates. The following hypotheses were of interest.

Hypothesis I - The redemption rate of a cents-off coupon is positively related to the value of the coupon.

Hypothesis II - The redemption rate of a cents-off coupon is a function of the method of coupon distribution where order of redemptions would be:

- i) package coupon distribution
- ii) direct mail coupon distribution
- iii) magazine coupon. distribution
- iv) newspaper coupon distribution

Hypothesis III - The redemption rate of a cents-off coupon is a function of the type of product in the promotion with frequently purchased food products having the highest redemption rates, followed by infrequently purchased food items, household products and drug/toiletries.

#### iv. Discussion of Hypotheses

a) Coupon Value - coupon value is the face value shown on the coupon and is the amount of money the coupon redeemer saves off the purchase price of the couponed product. Research by marketers seemed to indicate that in many coupon promotions, the value of the coupon set by the marketer had a significant effect on the number of coupons redeemed. It was suggested that cents-off coupons offering higher face values would provide higher redemption rates. Shoppers would be more likely to redeem a cents-off coupon offering a large saving on a brand than one which amounted to only a few cents, since the low coupon value was a poor incentive for a consumer to clip the coupon from an advertisement, save it, and later remember

to redeem it in a retail store.

b) Method of Coupon Distribution - Marketers have been very aware that certain types of coupons are more successful than others in persuading consumers to try a couponed brand. It has been assumed that certain methods of coupon distribution have higher redemption rates because the coupons are distributed or circulated in a manner which affords greater consumer satisfaction. Factors causing redemption superiority of one method of coupon distribution over another may be the visual impact made by the coupon on the prospective user, the ease with which the user can acquire the coupon and the degree of relatedness between the coupon distribution method and the buyer's purchasing mood or environment.

In the following model, four primary methods of coupon distribution will be considered. A direct mail coupon is any coupon delivered to a household separately or with other coupons or with a product sample. A newspaper coupon is any coupon appearing in a newspaper or newspaper supplement which has paid, controlled circulation. A package coupon refers to any coupon appearing in a packaged product or appearing on the package itself. A magazine coupon includes any coupon appearing in a magazine advertisement or bound into the magazine with either controlled or uncontrolled circulation.

As shown earlier in the paper, Table 1, page 24, the average rate of coupon redemption varies significantly by the type of method selected to distribute the coupon. Those coupons distributed in a manner closely associated with a



product experience or a shopper's purchasing situation show significantly higher rates for redemption than those type of coupons relying heavily on visual impact. Newspaper, magazine and direct mail coupons are visual type coupons generally apart from a buying situation. Newspaper coupons, though very popular, compete heavily for reader attention in a publication full of advertisements. Magazine coupons also heavily visual, generally out pull newspaper coupons because of their superior visual presentation to the magazine reader and the selective audience reached by the magazine. Direct mail coupons can provide strong visual impact, in addition to being oriented to a purchasing situation. This probably accounts for their superior redemption rate over both magazines and newspaper coupons. In or on-package coupons show much higher coupon redemption rates because of their strong visual impact on a buyer and their close association to a product or purchasing situation.

c) Product Type - Certain types of products probably have higher rates of coupon redemption than others, because of the frequency with which that product is used and ultimately purchased again. Frequently bought products provide shoppers with more opportunities of receiving a coupon at a time when the consumer is about to plan a buying trip, therefore, the opportunity of using and redeeming the coupon is much better than for a product which is bought infrequently.

The variable 'product type' was broken into the following groups: food products purchased frequently, defined as those necessity food items which are used and bought often by the shopper; food products purchased infrequently, defined as convenience type foods which are not used regularly and are bought infrequently; household products defined as soaps, bleaches, cleaners, detergents, paper goods etc; and drug and toiletries which require no clarification.

It is assumed that frequently bought food products should have higher rates of coupon redemption than infrequently bought food items. Household and drug/toiletries are expected to have coupon redemption rates similar to the infrequently purchased food items, since an implied variable 'purchase frequency' was already evident in the variable 'product type'.

#### v. Summary of Hypotheses

The discussion of hypothesis considered each redemption variable, coupon value, method of coupon distribution and product type, separately. In the model presented, all three variables will be considered jointly. In other words, the redemption rate of a coupon promotion is not the result of just one of these variables, but all three variables interacting with one another.

#### vi. Analysis

Regression analysis was selected as a model for estimating the rate of coupon redemption from three predictor variables; the method of coupon distribution (direct mail, magazines,

newspaper and package coupons); the coupon value; and the type of product couponed. Step-wise multiple regression was used to analyze the data. Step-wise multiple regression permits each independent variable to be studied separately and the variable having the strongest relationship with the dependent variable is introduced first to the model, followed by the independent variable having the next strongest relationship to the dependent variable until all independent variables have been introduced.

The multiple regression model overcomes certain problems faced by researchers employing the simple 'two-way' variable analysis. The contribution made by each independent variable and their combined effect on a dependent variable can be estimated. This permits an analyst to determine firstly, those independent variables having the strongest effect on the redemption rate of a coupon promotion, and secondly, what percent the independent variables in total explain the dependent variable.

Dummy variables were utilized for the predictor variable, 'method of distribution'.

a) Findings: Full Data Set

Based on data from 212 cents-off coupon promotions, the following Multiple Regression Coupon Redemption Model was analyzed.

$$r = a + b_1(V) + b_2(\text{Pkg}) + b_3(\text{DM}) + b_4(\text{Mag})$$

$r$ , (the dependent variable) equals the rate of coupon redemption, and  $V$ ,  $\text{Pkg}$ ,  $\text{DM}$ ,  $\text{Mag}$ , the independent variables on which the prediction was based; and " $a$ " a regression constant. The independent variables represented:

$r$  = the rate of redemption

$V$  = the value of the cents-off coupon

$\text{Pkg}$  = in or on-package coupons

$\text{DM}$  = direct mail coupons

$\text{Mag}$  = magazine coupons

The predictor variable 'newspaper coupon' was not present in the regression equation since as discussed below, the three coupon distribution method variables were sufficient to cover all four methods of coupon distribution.

TABLE 2

Matrix of Three State Nominal Variable  
Representing Methods of Coupon Distribution

For the coupon distribution methods listed below, the variables were given the values indicated:

<u>Coupon Distribution Dummy Variables</u>			
<u>Distribution Method</u>	<u>Pkg</u>	<u>DM</u>	<u>Mag</u>
Package	1	0	0
Direct Mail	0	1	0
Magazine	0	0	1
Newspaper	0	0	0

With the Multiple Regression Coupon Redemption model a marketer is able to estimate the rate of redemption from known values of V, Pkg, DM, Mag which are compiled from previous cents-off coupon promotions. In practice a manager is likely to use more than one type of coupon in his brand's marketing plan. If, however, one type of coupon is used, the regression equation will show the single variable representing that type of cents-off coupon.

Regression Analysis I (n = 212)

TABLE 3

Multiple Regression Analysis I

Dependent variable: r, the rate of coupon redemption

Multiple correlation: 0.55

$R^2$ : 0.303

Standard error: 8.83

<u>Variables in Equation</u>	<u>b</u>	<u>Standard error of 'b'</u>	<u>F</u>
V	0.10	0.05	4.10*
Pkg	15.73	1.80	76.70*
DM	7.10	1.60	18.80*
Mag	3.30	1.70	3.80*
Constant	1.95		

\*Significant at  $\alpha = .05$

This analysis revealed that package coupons had the strongest effect on coupon redemption, followed by Direct Mail coupons and thirdly surprisingly, Coupon Value, and finally

Magazine coupons. The results of this analysis are somewhat surprising, especially the small effect that coupon value appears to have on redemption. It is believed by many marketers that the value of a cents-off coupon is extremely important to coupon redemption, however, analysis of 212 coupon campaigns did not support this hypothesis as evidenced further by the relatively low correlation with redemption ( $r = 0.13$ ) and the very small regression coefficient. The 0.10 indicates that an increase in 50 cents in coupon value would result in a 5.0% increase in redemption.

As examples of interpreting the Multiple Regression Coupon Redemption equation, consider the following:

Example 1: A 15 cent coupon distributed via newspaper

$$r(15¢, \text{News}) = 1.95 + 0.10(15) + 15.73(0) + 7.10(0) + 3.30(0) = 3.45\%$$

Example 2: A 25 cent coupon distributed in a package:

$$r(25¢, \text{pack}) = 1.95 + 0.10(25) + 15.73(1) + 7.10(0) + 3.30(0) = 20.18\%$$

Continuing with example 2, suppose a marketing manager wished to determine a confidence interval for the estimated rate of redemption for a 25 cent package coupon at a 95% confidence level. He would estimate redemption of  $20.18\% \pm 17.66\%$  ( $\pm$  two standard errors). Therefore, in the long run, a marketing manager would be assured that 95% of his estimates for 25 cent coupon redemptions appearing in package would fall in the range 2.52% to 37.84%.

The range covered in this example is quite extreme and a marketer may question the usefulness of the present model. A more precise measurement may be obtained if a large number of coupon campaigns relating to the couponed product were obtained. This will be discussed in greater detail later.

Regression Analysis II: (n = 89)

In the second analysis an additional variable 'product type' was included. Data was available for a subset of 89 Canadian coupon campaigns appearing in newspaper, magazines, packages, and direct mail. The regression model was constructed as follows:

$$r = a + b_1(v) + b_2(pkg) + b_3(DM) + b_4(Mag) + b_5(Ff) + b_6(Fi) + b_7(Hd)$$

r, the dependent variable, the rate of coupon redemption was estimated from the following independent variables:

V, the value of the cents-off coupon

Pkg, in or on-package coupons

DM, direct mail coupons

Mag, magazine coupons

Ff, frequently purchased food items

Fi, infrequently purchased food items

Hd, household type products

The fourth 'product type' variable (Drug/Toiletry) and the fourth 'method of coupon distribution' variable (newspaper), were not necessary in the equation because of the dummy multiple regression format used.

TABLE 4Multiple Regression Analysis II

Dependent variable:  $r$  = the rate of coupon redemption

Multiple correlation: 0.53

$R^2$ : 0.283

Standard error: 10.65

<u>Variables in Equation</u>	<u>b</u>	<u>Standard Error of 'b'</u>	<u>F</u>
Pkg	15.7	3.00	27.4*
DM	7.7	3.15	6.0*
Mag	5.1	3.40	2.3*
Ff	5.5	2.50	4.7*
Constant	0.85		

\*Significant at  $\alpha = 0.05$

The independent variables listed below were not statistically significant at the above level of confidence and were therefore excluded from the equation.

V, coupon value

Hd, household products

Fi, food items purchased infrequently

Analysis of data from the above study showed that package coupons, as in the earlier case study, was the most important predictor variable in the multiple regression model, followed by Direct Mail coupons, frequently purchased food items, and magazine coupons.



In the earlier example, coupon value had a slight relationship with coupon redemption, however, in this model it was not statistically significant. Household products and Drug/Toiletry items which were presumed to be purchased infrequently by shoppers were not important predictor variables in the equation. From this study, the multiple regression equation for predicting the rate of coupon redemption was:

$$r = 0.85 + 15.7(\text{Pkg}) + 7.7(\text{DM}) + 5.1(\text{Mag}) + 5.5(\text{Ff})$$

Consider some examples showing interpretation of this model:

Example 1 - a 15¢ coupon for a frequently purchased food item distributed in a package

$$\begin{aligned} \text{Redemption (15¢, Ff, Pkg)} &= 0.85 + 15.7(1) + 7.7(0) + 5.1(0) + \\ &5.5(1) = 22.05\% \end{aligned}$$

Example 2 - a 25¢ coupon for a Drug/Toiletry item distributed via direct mail

$$\begin{aligned} \text{Redemption (25¢, DT, DM)} &= 0.85 + 15.7(0) + 7.7(1) + 5.1(0) + \\ &5.5(0) = 8.55\% \end{aligned}$$

Example 3 - a 25¢ coupon for an infrequently purchased food item appearing in a newspaper

$$\begin{aligned} \text{Redemption (25¢, Fi, News)} &= 0.85 + 15.7(0) + 7.7(0) + 5.1(0) + \\ &5.5(0) = 0.85\% \end{aligned}$$

#### b) Discussion of Hypothesis I

Hypothesis I stated that the redemption rate of a cents-off coupon was directly related to the value of the cents-off coupon.

Coupon Value - the first regression analysis supports the hypothesis, although the relationship between coupon value and redemption is not nearly as strong as might have been suspected. A marketer, using the model, could increase the value of a coupon 10 cents, and improve the coupon redemption rate only one percent. For example, a newspaper coupon increased in value from 15 cents to 25 cents results in an increased redemption rate from 3.45% to 4.45%. This could be a significant increase in coupon redeemers if a large number of cents-off coupons are distributed in a market area.

c) Discussion of Hypothesis II

Hypothesis II stated that the redemption rate of a cents-off coupon is a function of the method of coupon distribution where order of redemptions would be: package, direct mail, magazine and newspaper.

Method of Coupon Distribution - The multiple regression analysis supports this hypothesis. In this example, package coupons produced significantly higher rates of coupon redemption than direct mail, magazine and newspaper coupons as evidenced by the predictor variable coefficients of package 15.73; Direct Mail 7.10; Magazine 3.30; and Newspaper 1.95 as shown in Table 3. This provides the reader with some idea of the degree of effectiveness of the types of coupons discussed in the multiple regression analysis.

d) Discussion of Hypothesis III

Hypothesis III stated that the redemption rate of a cents-off coupon promotion was a function of the type of product in

the promotion.

Coupon value - in the small sub-sample of data collected, the value of the cents-off coupon, relative to the other variables, had little apparent impact on the coupon redemption rate, even though the range of coupon values in the data were from 5 cents to 50 cents. The predictor variable, coupon value, was not significant in this analysis. This reinforces the finding of hypothesis I, that coupon value apparently is not as important as many marketers suspect as being a contributor to coupon redemption rates.

Method of Coupon Distribution - The findings in this analysis parallel very closely the results of the earlier analysis. The types of coupons, in order of their effectiveness, as a predictor of coupon redemption rates are package coupons, direct mail coupons, magazine coupons and newspaper coupons.

Product Type - For the product classes tested, food products frequently purchased, food product infrequently purchased, household items and drug/toiletries, the only class that influenced coupon redemption was food products frequently purchased. This class indicating an incremental 5.5% in redemption rate. This finding was as expected, since products purchased more frequently provide greater likelihood of their coupons being redeemed. Products bought infrequently provide consumers with fewer opportunities to redeem their coupons. A qualification to this finding may be a new product which is bought infrequently, however, during its introduction, shoppers may actively search for it on supermarket shelves, redeem the

cents-off coupon, and try the brand.

vii. Generalizations from the Multiple Regression Analysis

Three cautionary notes must be made about the multiple regression analysis. First, the equation for predicting the coupon redemption rate of a promotion should not be interpreted as being representative of all Canadian cents-off coupon promotions, and as such, generalizations about all coupon promotions providing similar results may be quite misleading. The data obtained was not selected randomly, nor was data from the same time period. The data obtained covered a three year period, 1973 - 1975. With the growth of couponing, and its increased shopper acceptance during recent inflationary times, the results of a coupon promotion concluding in 1975 may not be comparable with one in 1973.

Secondly, a much broader data base is needed to enable analysis of other variables that might influence the redemption rate of a cents-off coupon. Predictor variables worthy of consideration in the multiple regression model would be brand loyalty, market share, the brand's overall marketing activity, timing of a coupon drop (seasonal or in view of competitive activity), place of product purchase, the value of the couponed brand, and the rate of discount produced by the coupon.

The need for improving this model is indicated by the degree of explanation that was achieved by the foregoing multiple regression equations. In interpreting 'R' square, the coefficient of determination, the independent variables in the model accounted for approximately 30% of the variation in

redemption rates, supporting the belief that persumably many other factors affect coupon redemption rates. With a broader data base the accuracy of the redemption estimate could be undoubtedly improved.

A third cautionary note must be made about coupon redemptions within the categories package, direct mail, magazine, and newspaper coupons. A number of similar type coupons have been grouped into these four main groups, however, redemption rates within these classes may vary significantly. Package coupons have been defined as 'in pack same' and 'in pack other'. As one might expect, analysis of the coupon data revealed in Table 5, that 'in pack same' coupons showed the strongest relationship with the redemption, and coupons distributed in some other package, commonly referred to as "cross couponing" had a much lower correlation. This showed clearly that 'in pack same' coupons produced significantly higher redemption rates than cross couponed brands. This is as one might suspect. With 'in pack same' coupons, the shopper is already purchasing the brand, is presumed to be somewhat loyal, and will receive a saving on its next purchase. The same may not be said for shoppers receiving coupons for some other brand.

A close examination of the types of direct mail coupons included in this category revealed a generally weak correlation with redemption, however, on the basis of this data, direct mail solo and in-store couponing appeared more effective than direct mail 'co-op', a coupon drop with sample and a non-mail coupon door drop. This is as one might expect, since shoppers

TABLE 5

Correlation Coefficients between Coupon Redemption and  
Method of Coupon Distribution

<u>Method of Coupon Distribution</u>	<u>Correlation Coefficients Redemption vs. Method of Coupon Distribution</u>	<u>Number of Coupon Promotions n = 212</u>	<u>% of Sample</u>
1. <u>Package Category</u>			
1. In-pack other	.11	17	8%
2. In-pack same	.59	17	8%
3. Egg Carton	-.02	8	4%
		<u>42</u>	<u>20%</u>
2. <u>Direct Mail Category</u>			
1. Direct mail solo	.09	17	8%
2. Direct mail coop	.03	19	9%
3. Coupon with product sample	.04	11	5%
4. Coupon door drop - non- mail	-.02	11	5%
5. Store coupon drop	.07	2	1%
		<u>60</u>	<u>28%</u>
3. <u>Newspaper Category</u>			
1. Newspaper - black and white	-.02	21	10%
2. Newspaper - 2 color	-.10	6	3%
3. Newspaper - 4 color	-.05	6	3%
4. Newspaper supplements	-.08	16	7.5%
		<u>49</u>	<u>23.5%</u>
4. <u>Magazine Category</u>			
1. Pop up coupon - paid or unpaid circulation	-.04	24	11%
2. Unpaid circulation	-.06	24	11%
3. Paid circulation	-.09	13	6.5%
		<u>61</u>	<u>28.5%</u>

in a store are already in a purchasing environment and probably more aware and receptive of a coupon handed them. A solo mail drop offers the advantage of not being with other pieces of direct mail which the householder could easily perceive as being 'junk mail'.

Negative correlations appeared between redemption and magazine and newspaper coupons. Relative to the other methods of coupon distribution these negative linear relationships may suggest that as newspaper or magazine coupon circulation increases, coupon redemption decreases. One possible explanation might be that as coupon circulation increases, selectivity of reaching likely prospects for the product decreases. With large market daily newspapers and nationally circulated magazines it may become difficult for a marketer to match media and brand user characteristics.

Within the newspaper category, surprisingly coupons in color advertisements appeared to be no more effective than coupons in black and white advertisements, and weekend newspaper supplement coupons were no more effective than black and white and colour newspaper coupons.

Because of the variety of different types of magazine coupons, the only conclusion which became evident from the study was that no one type of magazine coupon was more effective than another, and this covered the range from regular magazine coupons to 'pop up' coupons in publications known for this type of couponing.

## VI. SELECTING A METHOD OF COUPON DISTRIBUTION

A marketer tries to select a method of coupon distribution which best satisfies a product's marketing objective. Not all coupon methods provide similar redemption rates, nor do all methods of coupon distribution cost the same. What criteria should a marketer use to select a 'best' method of coupon distribution? Two alternatives are discussed.

### 1. Cost per Redemption

A practice used by industry to judge the most effective method of coupon distribution is the basis of, cost per redeemed coupon. The cost used may be either the fixed cost of distributing the coupon, or the total promotion cost including both fixed and variable costs of the cents-off promotion. The latter would offer the marketer the advantage of knowing precisely his total cost for each coupon redeemed by a consumer. Figure 3 graphs the four types of coupons, for different coupon values, using coupon distribution cost per redeemed coupon as the criterion. The points on these curves, calculated from data generated in the multiple regression analysis I, page 58 and summarized in Table 6, represent the coupon fixed cost per redeemed coupon.

Distribution fixed costs of Direct Mail (\$16.00/M printing and delivery) and Magazine (\$5.50 per thousand printing and space) were obtained from a study in Advertising Age, January 13th, 1975. The fixed cost of Newspaper (\$3.00/M printing and space) and Package couponing (\$5.00/M printing and insertion) were obtained from discussion with industry personnel.



FIGURE 3

DISTRIBUTION COST PER REDEMPTION FOR DIFFERENT METHODS OF COUPON DISTRIBUTION  
(Regression Analysis I)

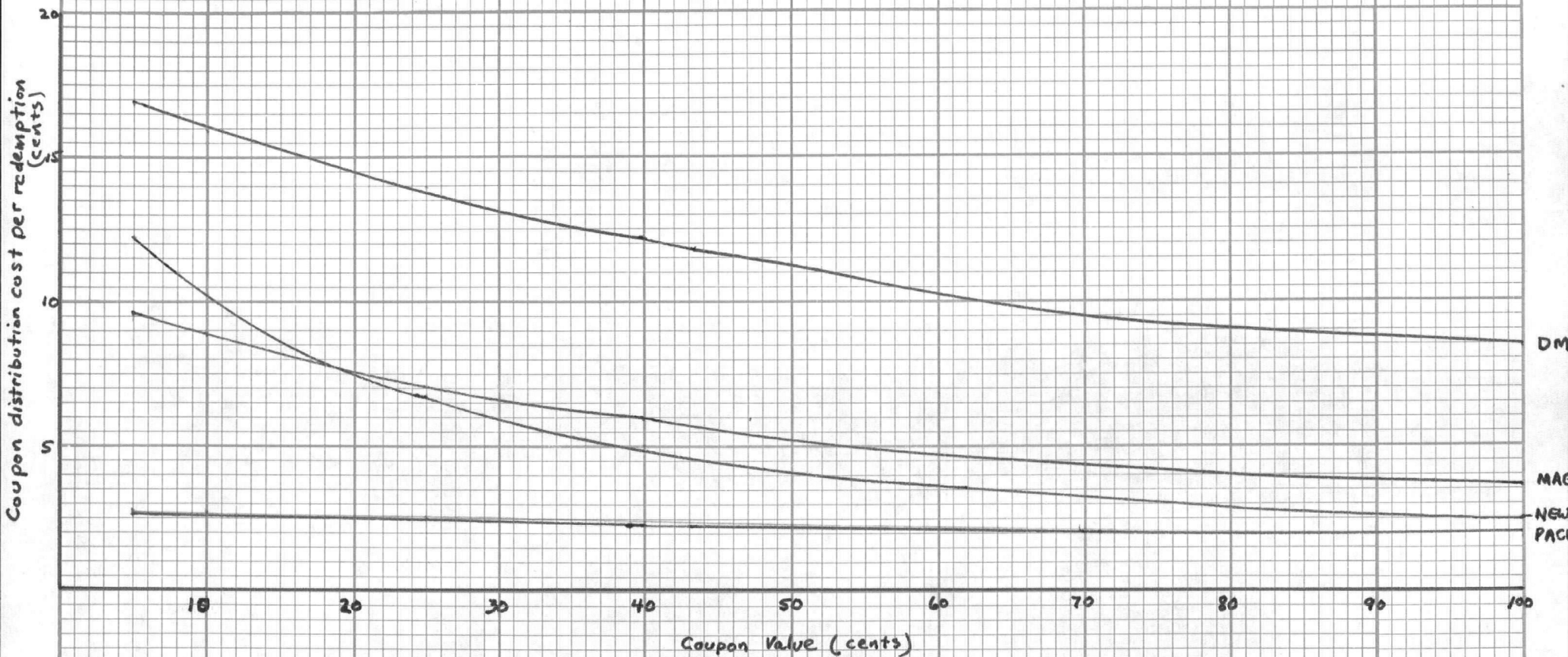


TABLE 6

Distribution Cost per Redeemed Coupon by Method  
of Coupon Distribution

Regression Analysis I  
(N = 2,000,000)

<u>Coupon Value</u>	<u>Type of Coupon Method</u>			
	<u>Newspaper</u>	<u>Magazine</u>	<u>Direct Mail</u>	<u>Package</u>
	<u>Distribution Cost Per Redeemed Coupon</u>			
5 CENTS	12.2¢	9.6¢	16.8¢	2.75¢
10 CENTS	10.2¢	8.8¢	15.9¢	2.7¢
25 CENTS	6.7¢	7.1¢	13.9¢	2.5¢
40 CENTS	5.0¢	5.9¢	12.3¢	2.3¢
ONE DOLLAR	2.5¢	3.6¢	8.4¢	1.8¢
<hr/>				
*Distribution Fixed Cost	\$6,000	\$11,000	\$32,000	\$10,000

**\*\*Multiple Regression Model** predicting Coupon redemption rate

$$r = 1.95 + .01(V) + 15.73(\text{pack}) + 7.10(\text{DM}) + 3.30(\text{Mag})$$

$$r(10¢ \text{ DM}) = 1.95 + 1.0 + 7.10 = 10.05\%$$

$$\text{Distribution Cost per redeemed coupon} = \frac{\$32,000}{(10.05\%)(2,000,000)}$$

$$= 15.9¢$$

\*See page 69

\*\*See page 58

Therefore, for a 2,000,000 coupon drop, fixed distribution costs are as follows: package \$10,000; direct mail \$32,000; magazine \$11,000; and newspaper \$6,000. For example, a 5¢ Direct Mail coupon has a 16.8¢ cost per redeemed coupon while a 5¢ Package coupon costs the marketer 2.75¢ for each coupon redeemed.

The four curves indicate that the most effective method of coupon distribution to be Package. Direct mail provided the highest cost per redeemed coupon at all coupon values between 5 and 25 cents; while Magazines had a lower cost per redemption in the 5 to 19 cent range, with Newspaper offering a lower value in the 20 - 25 cent range.

## 2. Net Contribution per Redemption

The net contribution per redeemed coupon is an extremely important estimate in selecting the most effective method of coupon distribution. It is an application of the 'FAVCOC-R' model discussed earlier (page 35). Consider the following simplified equation for calculating the brand's net contribution for each coupon redeemed.

Net contribution per redeemed coupon = NCR =

$$(1 + \beta \phi) (\alpha) (MC) \delta - (V+H)$$

Example 1 - Calculate a brand's net contribution per redeemed coupon given:

### Known Variable

Coupon value  $V = 10¢$

Coupon handling cost  $H = 7¢$

Contribution margin  $MC = 40¢$

Assumed estimated variables:

$\alpha$ , the percent of incremental buyers including allowance for buyers misredeeming coupons = 47%

$\beta$ , the percent of incremental repeat buyers = 15%

$\phi$ , the average number of repeat purchases by  $\beta$  buyers = 10 units

$$\text{NCR} = (1 + 1.5)(.47)(.40) - .17 = .30$$

In this example, 30 cents represents the net contribution per redemption by incremental buyers for a 10 cents newspaper coupon. The estimated variables  $\alpha$ ,  $\beta$ , and  $\phi$  will change for each method of coupon distribution as shown in Table 7.

For the above example, substituting a 25¢ coupon, the net contribution for each redeemed coupon would be 15 cents.

Figure 4 plots these contribution curves for each of the four methods of coupon distribution for coupon values ranging from 5 cents to one dollar.

Figure 4 shows that overall magazine couponing provides the largest contribution per redemption of any of the couponing vehicles with the package couponing offering the lowest overall net contribution. These curves show that if the value of a package coupon is increased beyond 30 cents, the cents-off promotion will not break even, but actually increase the total cost of the cents-off promotion. The coupon value break even point for other methods of coupon distribution are clearly shown by these curves.

TABLE 7

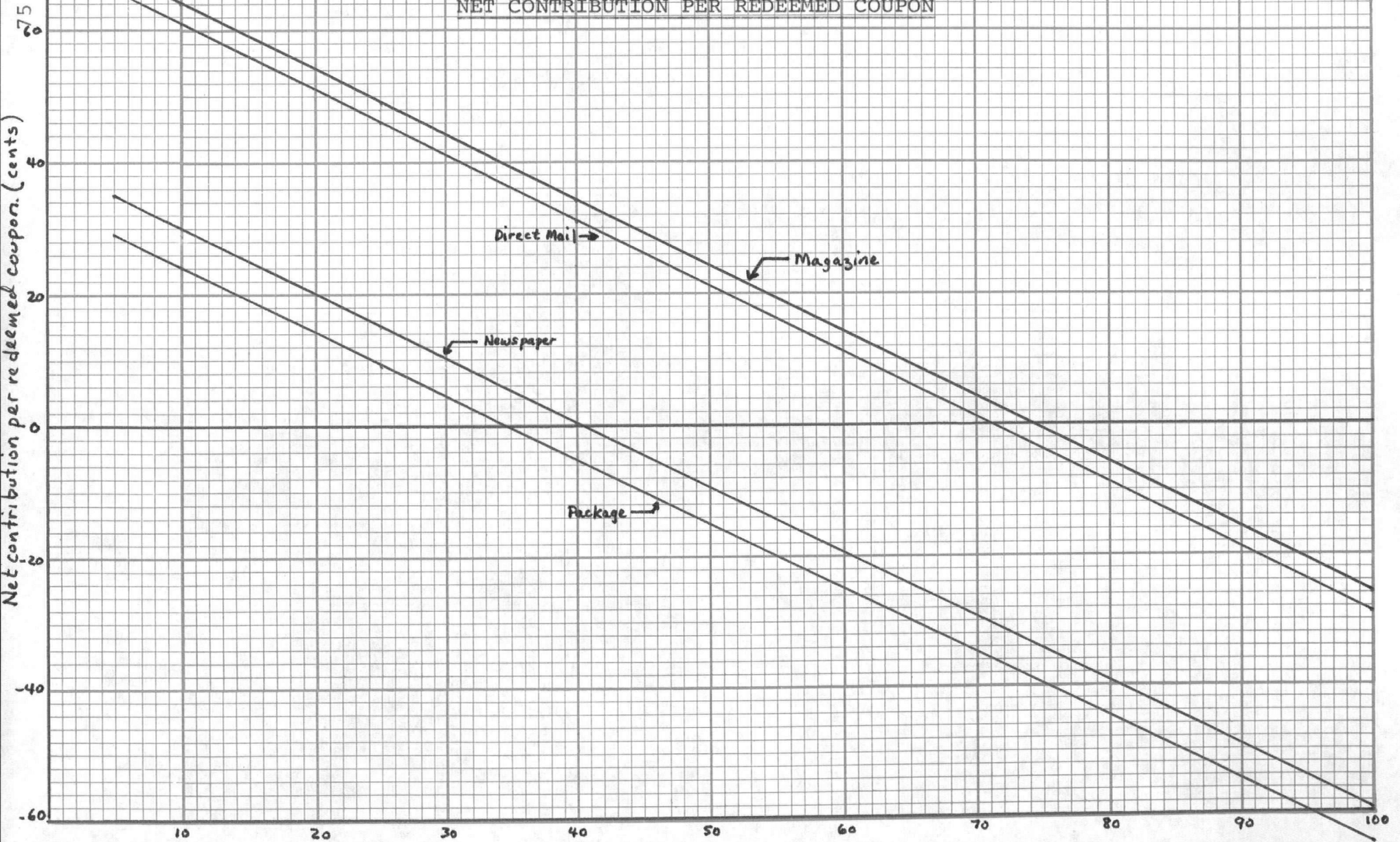
Net Contribution Per Redeemed Coupon

Assumptions:  $V = 10¢$   
 $H = 7¢$   
 $MC = 40¢$   
 $N = 2,000,000$

<u>Estimated Variables</u>	<u>Newspaper</u>	<u>Magazine</u>	<u>Package</u>	<u>Direct Mail</u>	
1. <u>Incremental Buyers</u> ( $\alpha$ )					
-non-incremental buyers	50%	40%	70%	30%	
-fraud redemptions	3%	2%	1%	5%	
-incremental buyers	47%	58%	29%	65%	
2. <u>Incremental Buyers that repeat</u> $\beta$	15%	25%	50%	20%	
3. <u>Average number of repeat purchases</u> ( $\phi$ )	10 units	10 units	5 units	5 units	
4. <u>Number of purchases by incremental buyers</u> $(1 + \beta\phi)$	2.5	3.5	3.5	3.0	
5. <u>Revenue contribution per incremental buyer</u> $(1 + \beta\phi)(\alpha)$ (MC)	.47	.812	.406	.78	
<hr/>					
COUPON VALUE	5¢	10¢	25¢	40¢	\$1.00
6. <u>Variable cost per Coupon redeemed</u> (V+H)	.12	.17	.32	.47	1.07
7. Net contribution per redeemed coupon (NCR) $(1 + \beta\phi)(\alpha)$ (MC) - (V+H)					
Newspaper	.35	.30	.15	0	-.60
Magazine	.69	.64	.49	.34	-.26
Package	.29	.24	.09	-.064	-.66
Direct Mail	.66	.61	.46	.31	-.29

Figure 4

NET CONTRIBUTION PER REDEEMED COUPON



While Figure 4 considered the net contribution per redeemed coupon, Figure 5 graphs the net contribution of all redeemed coupons by incremental buyers for each method of coupon distribution for coupon values ranging from 5 cents to one dollar. For example, as shown in Table 8, the 10 cent coupon contributing the largest share of revenue (approximately \$91,000) to a brand's profit position was a direct mail coupon, while a 10 cent newspaper coupon contributed the least money, only \$12,000. From these graphs, a marketer is able to choose the method of coupon distribution yielding the largest dollar contribution at coupon values ranging from 5 cents to one dollar.

### 3. Calculating Break-even Redemptions

Break-even analysis can be a useful tool to assist a marketer in selecting a method of coupon distribution and determining the value of the cents-off coupon. The total costs of a cents-off coupon promotion are given by the formulae  $(r \cdot N)(V+H) + DC$  while the contribution from incremental customers is  $(1 + \beta\phi) [\alpha (r \cdot N \cdot \delta) MC]$  with  $\beta, \phi, \alpha, r$  and  $\delta$  as estimates. The coupon redemption rate 'r' is estimated from the multiple regression equation and  $\delta$  is a subjective estimate given by the marketer of the percent of valid redemptions. The break-even analysis can be calculated in terms of  $\alpha$ , the percent of incremental buyers with a range of estimates of  $(1 + \beta\phi)$ ; the average number of purchases per incremental customer. With assumed estimates of  $(1 + \beta\phi)$  the marketer can interpret whether  $\alpha$  is likely or unlikely to occur for different couponing methods and coupon values.



FIGURE 5

COUPON CAMPAIGN NET CONTRIBUTION CURVES  
(Regression Analysis I)

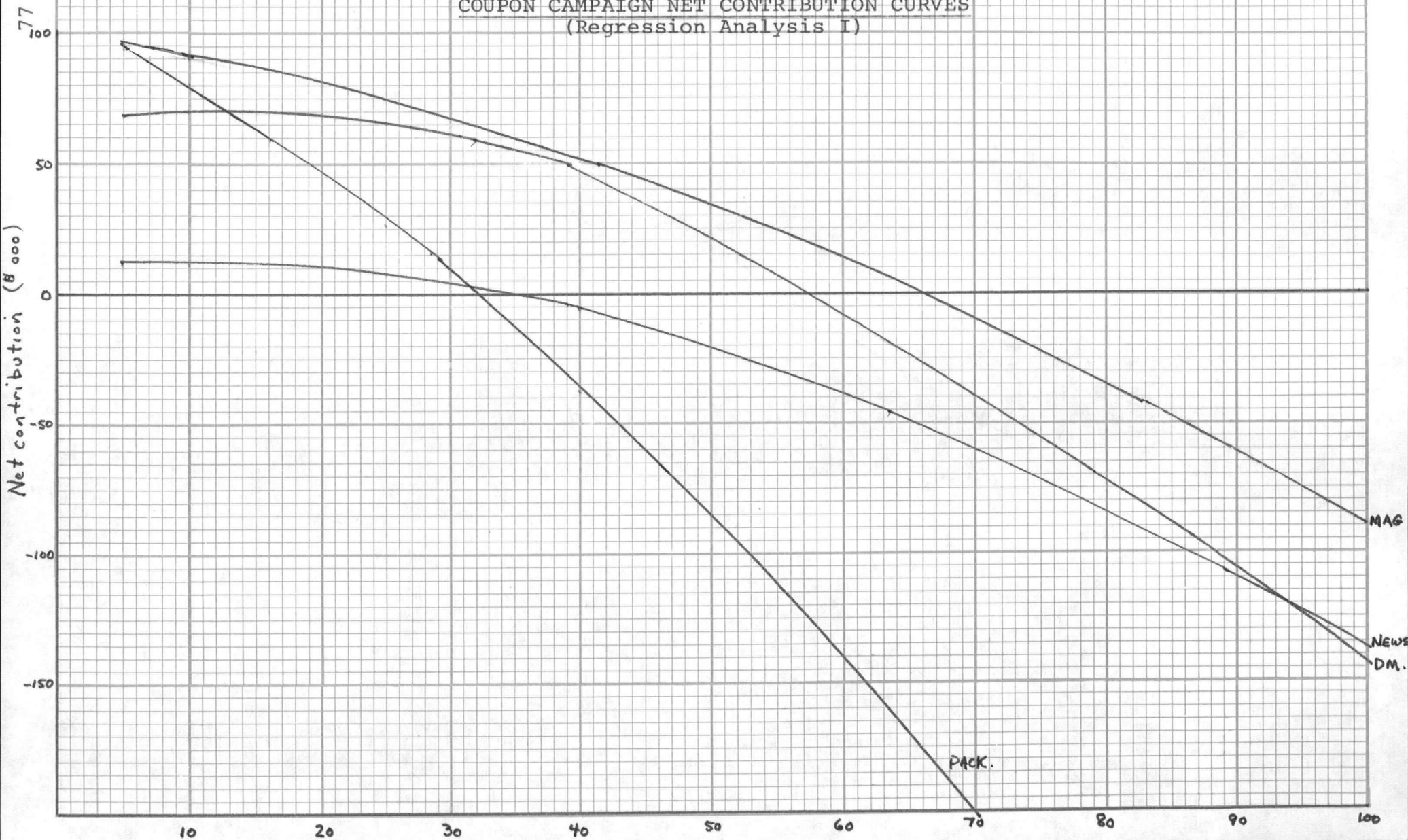




TABLE 8 (a)

Newspaper Coupon Campaign's Net Dollar Contribution  
(N = 2,000,000)

<u>Coupon Value</u>	<u>5 Cents</u>	<u>10 Cents</u>	<u>25 Cents</u>	<u>40 Cents</u>	<u>One Dollar</u>
Coupon redemption rate* (r)	2.45%	2.95%	3.45%	5.95%	11.95%
<u>Incremental Revenue</u>					
1. Number of coupons redeemed (r·N) (000)	49	59	89	119	239
2. Net contribution per redeemed coupon** (NCR) (cents)	.35	.30	.15	0	-.60
3. Incremental revenue (\$000) (r·N) (NCR)	17.15	17.70	13.35	0	-143.40
4. Coupon distribution cost (DC) (\$000)	6.0	6.0	6.0	6.0	6.0
5. Net Contribution (\$000) (r·N) (NCR) - DC	11.15	11.70	7.35	-6.0	-137.4

\*Redemption rates 'r' calculated from multiple regression equation, page 58

\*\*See Table 7, page 74

TABLE 8 (b)

Magazine Coupon Campaign's Net Dollar Contribution  
(N = 2,000,000)

<u>Coupon Value</u>	<u>5 Cents</u>	<u>10 Cents</u>	<u>25 Cents</u>	<u>40 Cents</u>	<u>One Dollar</u>
Coupon redemption rate* (r)	5.75%	6.25%	7.75%	9.25%	15.25%
<u>Incremental Revenue</u>					
1. Number of coupons redeemed (r·N) (000)	115	125	155	185	305
2. Net contribution per redeemed coupon** (NCR)	.69	.64	.49	.34	-.26
3. Incremental revenue (\$000) (r·N) (NCR)	79.35	80.00	75.95	62.90	-79.30
4. Coupon distribution cost (DC) (\$000)	11.0	11.0	11.0	11.0	11.0
5. Net contribution (\$000) (r·N) (NCR) -DC	68.35	69.00	64.95	51.90	-90.30

\*Redemption rates 'r' calculated from multiple regression equation, page 58

\*\*See Table 7, page 74

TABLE 8 (c)

Direct Mail Coupon Campaign's Net Dollar Contribution  
(N = 2,000,000)

<u>Coupon Value</u>	<u>5 Cents</u>	<u>10 Cents</u>	<u>25 Cents</u>	<u>40 Cents</u>	<u>One Dollar</u>
Coupon redemption rate* (r)	9.6%	10.1%	11.6%	13.05%	19.05%
<u>Incremental Revenue</u>					
1. Number of coupons redeemed (r·N) (000)	191	201	231	261	381
2. Net contribution per redeemed coupon** (NCR) (cents)	.66	.61	.46	.31	-.29
3. Incremental revenue (\$000) (r·N) (NCR)	126.06	122.61	106.26	80.90	-110.49
4. Coupon distribution cost (DC) (\$000)	32.0	32.0	32.0	32.0	32.0
5. Net Contribution (\$000) (r·N) (NCR) - DC	94.06	90.61	74.26	48.91	-142.49

\*Redemption rates 'r' calculated from multiple regression equation, page 58

\*\*See Table 7, page 74

TABLE 8 (d)

Package Coupon Campaign's Net Dollar Contribution  
(N = 2,000,000)

<u>Coupon Value</u>	<u>5 Cents</u>	<u>10 Cents</u>	<u>25 Cents</u>	<u>40 Cents</u>	<u>One Dollar</u>
Coupon redemption rate* (r)	18.2%	18.7%	20.2%	21.7%	27.7%
<u>Incremental Revenue</u>					
1. Number of coupons redeemed (r·N) (000)	364	374	404	434	554
2. Net contribution per redeemed coupon** (NCR) (cents)	.29	.24	.09	-.06	-.66
3. Incremental revenue (\$000) (r·N) (NCR)	105.56	89.76	36.36	-27.78	-365.64
4. Coupon distribution cost (DC) (\$000)	10.0	10.0	10.0	10.0	10.0
5. Net contribution (\$000) (r·N) (NCR) - DC	95.56	79.76	26.36	-37.78	-375.64

\*Redemption rates 'r' calculated from multiple regression equation, page 58

\*\* See Table 7, page 74

Combining both the cost and contribution equations and solving for  $\alpha$ , one obtains 
$$\alpha = \frac{r \cdot N (V+H) + DC}{[(r \cdot N) \delta] MC (1 + \beta \phi)}$$

Table 9 shows the percent of incremental buyers needed to break-even for coupons distributed in newspapers, magazines, direct mail and package for coupon values ranging from 5 cents to one dollar at three different levels of average purchase per incremental buyer. For example, a marketer using a 5 cent newspaper coupon and estimating an average 1.5 purchases per incremental customer, 43.5% of the coupons distributed must be redeemed by incremental buyers if the cents-off promotion is to break-even. Using the same example, if a marketer estimates 3.5 purchases per incremental customer then the break-even point is lowered to 18.6% incremental redemptions. For a 40 cent direct mail coupon, the marketer observes that if a 1.5 estimate of  $(1 + \beta \phi)$  is made, the coupon promotion will not break-even, however, with a more optimistic estimate of 3.5, 45.5% of the coupons distributed must be redeemed by incremental buyers for break-even to occur.

TABLE 9

Percent of Incremental Buyers Required to Break-even

Given:  $N = 2,000,000$   
 $V = 5 \text{ cents, } 10 \text{ cents, } 25 \text{ cents, } 40 \text{ cents, one dollar}$   
 $H = 7 \text{ cents}$   
 $DC \text{ (Newspaper)} = \$6,000$   
 $DC \text{ (Magazine)} = \$11,000$   
 $DC \text{ (Direct Mail)} = \$32,000$   
 $DC \text{ (Package)} = \$10,000$   
 $MC = 40 \text{ cents}$

Estimates:  $\delta = 93 \text{ percent}$   
 $(1 + \beta\phi)$  at 1.5, 2.5, 3.5

Method of Coupon Distribution

<u>Coupon Value</u>	<u>Newspaper</u>	<u>Magazine</u>	<u>Direct Mail</u>	<u>Package</u>	<u>Estimate (1 + <math>\beta\phi</math>)</u>
5 cents	43.5%	38.6%	51.5%	26.4%	1.5
	26.1%	23.2%	30.9%	15.9%	2.5
	18.6%	16.6%	22.1%	11.3%	3.5
10 cents	48.7%	46.2%	59.0%	35.3%	1.5
	29.2%	27.7%	35.4%	21.1%	2.5
	20.9%	19.8%	25.3%	15.1%	3.5
25 cents	69.4%	70.1%	82.2%	61.8%	1.5
	41.7%	42.0%	49.3%	37.1%	2.5
	29.8%	30.0%	35.2%	26.5%	3.5
40 cents	93.3%	94.9%	106.2%	88.4%	1.5
	56.0%	56.9%	63.7%	53.0%	2.5
	40.0%	40.7%	45.5%	37.9%	3.5
one dollar	196.3%	198.2%	206.8%	195.0%	1.5
	117.8%	118.9%	124.1%	117.0%	2.5
	84.1%	85.0%	88.6%	83.6%	3.5

#### 4. Summary

Selecting a method of coupon distribution using the Cost per Redemption Approach is a poor choice since it concerns itself with only the cost of a cents-off promotion and overlooks the revenue contributed by incremental buyers of the couponed brand. The Net Contribution per redemption considers both sides of this question, the revenue generated from incremental buyers and the variable costs in reaching this buyer group.

A marketer relying on the Cost per Redemption method can be misled to select a coupon method yielding a low cost per redemption and unaware that this method has no chance of permitting the cents-off promotion to break-even, as break-even analysis involves an offsetting of costs with revenue. Consider an example. Suppose a marketer selected a 40 cent package coupon, Figure 3 shows the approximate distribution cost per redemption to be 2.3 cents, however, a review of Figure 4 reveals that a 40 cent coupon would in fact cost the marketer 6.4 cents for every coupon redeemed. Therefore, what appeared at first glance to be a low cost per redemption and an apparent worthwhile choice of coupon method, turns out to be a very poor selection of both coupon value and coupon vehicle since the cents-off promotion resulted in a cost to the marketer of approximately \$38,000. (Table 8)

Break-even analysis is a useful tool in calculating the number of coupons which must be redeemed by incremental buyers for a cents-off promotion to break-even.

## VII. SUMMARY AND IMPLICATIONS

This paper reviewed the existing research dealing with cents-off couponing. Surprisingly, for a topic so important and current in consumer marketing today, little research has been initiated. Marketers, advertising agencies, retailers, market research consultants, magazines, newspapers, direct mail agencies, coupon clearing houses and trade associations have spent little time in understanding the complexities of this ever-growing merchandising practice. The Oxford dictionary defines 'Pot Luck' as, "one's luck or chance as to what may be in the pot". This is exactly what couponing is to many marketers today. They have little understanding of the many variables associated with coupon redemption and are unsure of what to expect in coupon redemptions and improved market positions for their product after the finish of a coupon campaign.

The purpose of this paper is to provide the marketer with an in depth look at a subject which has been taken for granted too long and by too many. New tools and concepts have been discussed which should be useful to the marketing manager in planning future cents-off coupon promotions.

Three different types of models have been discussed. The Conceptual Coupon Model described a series of events which determine a consumer's decision to purchase a product for which a cents-off coupon has been issued. Many variables may interfere with the shopper's behavioral pattern, and result in a coupon being unredeemed.



The main components of the Conceptual Model were identified as coupon awareness, coupon saving and coupon useage. A number of variables in each of these areas were identified as having possible effects on the redemption rate of a cents-off coupon promotion. For example, the method of coupon distribution, competitive activity, an individual's needs, motives, values and attitudes about coupons, probably have some bearing on coupon awareness. Consumer recall, a function of the presentation and type of coupon selected by a marketer, coupon value, consumer habit, the rate of discount provided by the coupon, a consumer's selective retention are 'saving' variables affecting redemption. Whether a coupon is used or not is largely determined by the extent of marketing support received by the couponed brand, and competitive brands. The product category and useage rate of the couponed product by a consumer, market share, brand loyalty, shopper's perception of the brand, and ease with which the consumer can find the couponed product on the retailer's shelf also affects the shopper's decision to use a coupon.

The second model that was discussed was the 'FAVCOC-R' model. A coupon promotion should support itself (break-even) from revenues derived from consumers who would not have purchased the couponed brand without the coupon. Such purchasers were defined as incremental buyers. Therefore, this model considered both the revenue and costs associated with a cents-off coupon promotion. This model pointed out to the marketer that coupons redeemed by regular users of the brand,

in effect reduced the profit position for the brand. Present users redeeming the coupon were given a costly price concession which caused a serious waste in marketing dollars since not only was the value of the coupon lost, but also the costs associated with couponing. Only for special circumstances, when a marketer is fending off strong competitive pressures for a highly competitive, undifferentiated product, should a coupon be directed to present users of the brand. Package couponing would be an excellent vehicle for this strategy.

Misredeemed coupons appear to be a growing problem in couponing, and represent a cost which must be considered.

In defence of the traditional approach to couponing, some marketing managers argue that couponing is a strategy integrated with other marketing variables such as advertising, merchandising, sales promotion, price and salesmanship, all working toward the goal of improving sales performance. A coupon promotion should not have to pay its own way from incremental buyers of the product.

In contrast, the author believes that too many coupon promotions are left to chance, with poorly defined objectives. Some are successful, but probably more are failures costing the marketer money, and in the long run, consumers may be having to pay higher prices. Yet, marketers contrive still more exotic coupon campaigns hoping to gain the competitive edge while prices for products continue to rise. The FAVCOC-R model provides a valuable framework by which marketers can evaluate the potential success of coupon promotions.

The third model discussed in the paper is the Multiple Regression model which was designed to simultaneously consider a number of factors that influence coupon redemption. The purpose of the model is to provide the marketing manager with a means of predicting the results of possible coupon campaigns, and choosing the one yielding the best results. It also enabled him to study each of the variables in the model, change their parameters, and observe their effect on coupon redemption.

Unfortunately the models were based on a small range of experiences. A data set based on a larger selection of examples would provide a much higher degree of predictability. Analysis I, based on 212 coupon campaigns considered what appeared to be the two most important variables affecting redemption, Coupon Value and Method of Coupon distribution. Surprisingly, Coupon Value did not stand out as a strong influence in redemption, and was overshadowed by the distribution method; Package coupons and Direct Mail coupons. Coupon Value had only marginal effect on redemption as did magazine and newspaper coupons.

In the second regression analysis, based on 89 coupon campaigns, two additional variables were tested, product category and product purchase frequency. It was decided after some preliminary testing to drop purchase frequency since it was highly correlated with the product category variable. As with the earlier model, package coupons had the most significant effect on coupon redemption followed by Direct Mail coupons, food items purchased frequently and magazine coupons/

newspaper coupons. Coupon value, and infrequently purchased product categories were not statistically significant.

### 1. Implications for more Research

A number of significant research problems were uncovered which reduced the predictive effectiveness of the regression model. The variables tested in both multiple regression models accounted for approximately 30% of the variance in redemption rate. Clearly a number of other factors must contribute to coupon redemption. A number of these variables have been discussed and research should be conducted to see if they contribute to the explanation of redemption rates.

A more comprehensive and wider range of coupon experiences should be studied to provide confidence in the ability of the multiple regression model to predict coupon redemption from such variables as coupon value, product category and method of coupon distribution.

The cost of misredeemed coupons needs further study. A large amount of evidence suggests that this could be a crucial problem and one which could discourage marketers from considering couponing as part of their marketing strategy in the future.

Little is known about the impact coupons have on switching consumer loyalties and whether these changes in purchasing habits are transitory. That is, are certain methods of coupon distribution more effective in establishing brand loyalty?

These studies must be carried out by marketing practitioners having no axe to grind but are interested in

objectively understanding more about a merchandising tool which has been used, abused and misused for a long time by all parties associated with it.

## 2. Implications for Marketing Management

The FAVCOC-R and Multiple Regression models present approaches to couponing which marketers can incorporate in their everyday market planning. Generally couponing objectives of a company are poorly defined and loosely connected with the overall marketing plan.

### i. When to coupon

Couponing under certain circumstances may be a useful means of achieving a marketing goal particularly if the following conditions are met: First, the product should have good retail distribution so stock-outs are minimized. It is difficult to expect consumers to save and use the coupon once, let alone save and use the coupon on a second visit to the supermarket. Second, the product should have a large contribution margin so that couponing costs are covered. Low cost items may not offer margin to cover the costs of couponing. Third, couponing is more effective for items which are purchased frequently by consumers. Frequently purchased products offer more opportunities for coupons being redeemed. Fourth generally consumer awareness should be established for the brand. Fifth, couponing for stimulating repurchase when the buyer is already purchasing the product makes little sense. Marketing dollars are wasted with consumers probably paying more for the product.

ii. Coupons may be costly

When considering the total cost of couponing in relation to the number of coupons redeemed, couponing may be a costly means of introducing prospects to your product. The average coupon value of the data used in the multiple regression model I was 16.6¢ to which 7¢ must be added for retailer and clearing house handling charges and the coupon distribution cost. The rate of redemption for a 16.6¢ coupon can be computed using the regression equations. For example, for package,  $r_p = 1.95 + 15.73 + .10(16.6) = 19.34\%$ , for Direct Mail  $r_{DM} = 10.75\%$ , for Magazines,  $r_M = 6.89\%$  and for Newspaper,  $r_{NSP} = 3.61\%$ . Table 10 shows the total cost per redeemed coupon for each of the main couponing methods as: package 26.2¢; magazine 31.6¢; newspaper 31.9¢; and direct mail 48.5¢.

Assume further that the Women's Day study of 1972 is representative of incremental buyers introduced to a product by a cents-off coupon. 14% of these purchasers had never bought the couponed product before. The cost of reaching this new user group (incremental buyers) becomes a \$1.87 for a package coupon, \$2.26 for a magazine coupon, \$2.28 for a newspaper coupon and \$3.45 for a direct mail coupon (Table 10).

Couponing may be an expensive strategy to introduce new prospects to a brand, however, a similar analysis should be undertaken for other marketing strategies before definite conclusions are drawn.

TABLE 10

The Cost of Reaching 14% Incremental Buyers of a Product  
(N = 2,000,000)

Assumptions:

- i) 14% new users (incremental buyers) buying the product through a cents-off coupon (Women's Day, 1972)
- ii) N = 2,000,000
- iii) V = 16.6¢
- iv) H = 7.0¢
- v) DC (package) at \$5.00/M = \$10,000  
DC (direct mail) at \$16.00/M = \$32,000  
DC (magazine) at \$5.50/M = \$11,000  
DC (newspaper) at \$3.00/M = \$6,000

Method of Coupon Distribution

	<u>Package</u>	<u>Direct Mail</u>	<u>Magazine</u>	<u>Newspaper</u>
1. Redemption rate (r·)	19.34%	10.75%	6.89%	3.61%
2. Number of Coupons redeemed (r·N)	386,800	215,000	137,800	72,200
3. Number of incremental buyers 14%(r·N)	54,152	19,292	10,108	30,100
4. Distribution cost per redeemed coupon (DC)	2.6%	14.9¢	7.98%	8.3¢
5. Total coupon cost per redeemed coupon (V+H) + DC	26.2¢	31.6¢	31.9¢	48.5¢
6. Total redemption cost (line 5 X line 2)	\$101,341	\$43,545	\$23,032	\$104,275
7. Redemption cost per incremental buyer (line 6 ÷ line 3)	\$1.87	\$2.26	\$2.28	\$3.46

iii. Coupon Value will not effect Redemption to any great degree

A marketing manager should not waste marketing dollars thinking a 30¢ coupon will do a significantly better job than a 10¢ coupon. It probably won't. Using the results from the Multiple Regression analysis I, the following facts are apparent when one goes from a 10¢ coupon to a 30¢ coupon (Table 11).

- (i) For a package coupon: Redemption increases 10.7%,  
total coupon cost 89.3%
- (ii) For a direct mail coupon: Redemption increases 19.8%  
total coupon cost 83%.
- (iii) For a magazine coupon: Redemption increases 32.1%,  
total coupon cost 123.4%
- (iv) For a newspaper coupon: Redemption increases 67.8%,  
total coupon cost 165.9%.

Coupon value should be established probably at a value which will not insult the intelligence of the shopper.

iv. Which method of coupon distribution provides the best results?

Our data used in multiple regression analysis I showed Package Couponing to have the best results, and in-package coupons having significantly better results than cross couponing. Direct mail couponing offered reach selectivity. Newspaper and magazine coupons were somewhere in the middle, with the slight edge given to magazines, again because there may be a degree of reach selectivity in choosing magazine's readers. A magazine chosen should not reach a segment of consumers already using the product, otherwise the cost of reaching new



TABLE 11

Total Coupon Campaign Costs for Different Methods of  
Coupon Distribution  
(N = 2,000,000)

	1. V	2. r	3. r · N (000)	4. (V+H)r · N \$	5. (V+H)r · N + DC \$
1. Newspaper	10¢ 20¢ 30¢	2.95% 3.95% 4.95%	59 79 99	10,030 21,330 36,630	16,030 27,330 42,630
2. Direct Mail	10¢ 20¢ 30¢	10.1% 11.1% 12.1%	202 222 242	34,340 59,940 89,540	66,340 91,940 121,540
3. Magazine	10¢ 20¢ 30¢	6.24% 7.24% 8.24%	124.8 144.8 164.8	21,216 39,096 60,976	32,216 50,096 71,976
4. Package	10¢ 20¢ 30¢	18.7% 19.7% 20.7%	374 394 414	63,580 106,380 153,180	73,580 116,380 163,180

## Notes:

- i) Column #1 represents coupon value
- ii) Column #2 represents the coupon redemption rate calculated from the multiple regression model 1
- iii) Column #3 represents the number of coupons redeemed
- iv) Column #4 represents the total variable cost of couponing assuming 'H' to be 7 cents
- v) v) Column #5 represents the total cost of couponing (variable cost plus coupon distribution cost)
- vi) Coupon distribution costs assumed to be:

Newspaper	\$6,000
Direct Mail	\$32,000
Magazine	\$11,000
Package	\$10,000

prospects will be unnecessarily high.

v. A coupon promotion should pay its own way

The FAVCOC-R coupon model determined the cost of couponing and the number of purchases by incremental buyers for the promotion to break-even. Unless a large proportion of incremental users are reached, a coupon promotion is not likely to pay its own way. For those marketers using couponing as a means of holding off competition, realize that this may be done at a high cost to the firm and consumers.

vi. Food, Household, Drug or Toiletry Products: which redeems best?

From the data, apparently those items which are purchased frequently have a more significant impact on coupon redemptions. Coupons for "everyday type" food products had significantly higher redemption rates than items in the household, drug/toiletry and slow moving food categories. With fast turnover items consumers have more opportunities to redeem coupons. Expect lower coupon redemptions if couponing slower moving items.

3. The Future of Couponing

The fantastic growth of couponing in the Seventies may not continue towards the end of this decade. Marketers may feel the threat of government pressure or even controls, to revert to more conventional marketing practices. Consumer groups may lobby strongly for lower prices in place of coupons. Presently in Canada consumer groups are casting a jaundiced eye on couponing, and 'cents-off' marking on packages

contravenes the newly introduced Package and Labelling legislation. In the United States, the Consumer Affairs Department are suggesting that the proclaimed savings on coupons are really illusionary, that in the end the consumer is paying more for such promotional efforts.

The abuses of couponing by certain sectors of the retail industry, may reduce marketers 'love affair' with this merchandising aid. Marketers will realize that couponing can be a costly vehicle for reaching new prospects for their product, and turn their attention to other merchandising strategies. Couponing, particularly 'in ad coupons' are being used like trading stamps, and may meet the same fate. Continual increases in postage rates in Canada and the United States could discourage the use of direct mail couponing which presently accounts for almost 25% of all coupons distributed. The Universal Product Code now seen on packages on supermarket shelves will soon appear on coupons and will lessen somewhat the abuses to couponing by consumers and retail store personnel.

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