Theme: Consumers & Producers

MODELING REACTION TO A PRICING SCALE: AN APPLICATION TO REQUESTS FOR CHARITABLE DONATIONS

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ABSTRACT:

Understanding the influence of context on choice is an important goal, one which must result in communications giving greater weight to the framework to be created than to putting forward specific advantages. In this research, we study the influence of the price scale proposed to obtain a donation by a mail request on the donor's behavior. Factors which influence the behavior at the individual level, as past behavior, are controlled within an experimental frame and several price scales are tested. The results show that, at the agregate level, the price scale has only a small impact on the mailing efficiency. But, with a model explaining the donation distribution, we demonstrate first the influence of the ‘appeals scale’ on donor behavior. Second, we show the need for controlling underlying heterogeneity as past behavior has a far more important role than the scale modification.

Keywords: Framing effects, fundraising, price scale, experimentation.

INTRODUCTION

It is well established that the price scale itself, as much as each individual price, serves to influence buyer behavior (Monroe, 1971). The problems associated with understanding pricing scale effects at the consumer level have received a good deal of attention from psychologists, particularly with regard to questionnaire design .

Previous related research on pricing has been carried out mainly from the producer's point of view, focusing on choice of price for a particular, isolated product. The charity fundraising sector, by constrast, possesses characteristics which make it an attractive arena for studying the effects of price *scale* on individual decisions. Such effects are not strongly influenced by variations in product characteristics, as the 'products' themselves are intangible, nor by distribution effects or the sales force, since fundraising takes place at a distance, typically through a mail drop, thereby precluding any direct contact with a salesperson or a given point of sales. Moreover, the direct marketing context facilitates the implementation of a large-scale experiment in a rigorous fashion.

The influence of context effects in a fundraising setting has been studied mainly in face-to-face social psychology situations (Reingen, 1982), and to a lesser extent by analyzing the results of mail drops carried out in accordance with standard experimental design methods. Such context effects have been decisively demonstrated and, generally speaking, requests for larger sums results both in a rise in average donation and in a decrease in donation frequency. However, the results obtained by various researchers are not always convergent on these points, due primarily to stress placed on scale manipulation, as opposed to adapting the scale of donation appeals in the direction of recipient expectations (Schibrowsky and Peltier, 1995; Weyant, 1996). The objective of this study is to formulate a model which makes it possible to anticipate the consequences of a price (or 'appeals') scale, taking into account both contextual effects due to the framework proposed in communicating the donation request, as well as individual-specific characteristics.

CONCEPTUAL FOUNDATIONS

Choice Relativity : Faced with an appeal for funds, the individual must choose whether or not to respond, and then possibly how much to donate. In order to select the most attractive alternative among those offered, the decision-maker activates a frame of reference including the perception of the foreseeable consequences associated with each of the alternatives. Evaluation is then carried out according to personal preferences specific to the product category in question, as well as to consequences for the social image of the person making the decision, taking into account positive standards of behavior (e.g., a smart shopper) or negative ones (e.g., miserliness).

As a consequence of limited cognitive resources, the choice process is simplified by the use of heuristics both in the phase of examining the range of alternatives and that of selecting the final choice; this is reflected primarily in the recourse to context required to limit the search for data stored in memory. The comparison of alternatives is facilitated by the codification of characteristics on discrete scales, rather than continuous ones, each level of the scale being buffered by a zone of indifference. Within the theoretical framework regarding level of adaptation, the consequences of various alternatives are evaluated relative to a point of reference. This point is internally-determined, deriving from a hybrid of memory and anticipation; however, it is also influenced by information available in the environment, the external contextual effect. The relative importance of the two sources of information – internal and environmental – in creating a frame of reference, and indirectly in evaluating the alternatives, depends in part on the individual's level of involvement in the decision to be made and, in addition, on the relative accessibility of relevant data (Payne, Bettman and Johnson, 1992).

The effect of external information, however, appears to be primarily contextual: marketing communication influences observed behavior, but does not fundamentally, directly modify preferences (Lynch, Chakravarti and Mitra, 1991). Such effects may be termed 'indirect', considering the manner in which account is taken of new, externally-supplied information in updating reference points. While behavior is thus primarily determined by internal, individual-specific factors, manipulating the decision context through marketing communication thus renders it possible to influence choice; this is particularly the case when a scale offering several responses, or discrete points, is presented. In the context of appeals for charitable donations, Assimilation-Contrast theory (Meyers-Levy and Sternthal, 1993) suggests that the ability to evaluate or anticipate donation response deteriorates as the charitable appeal is placed ever further from an individual's reference point. Indeed, an appeal which is considered unrealistic, owing to great distance from a reference point, fails to significantly influence donor behavior (Urbany, Bearden and Weilbaker, 1988).

Behavior in Relation to Price : Compared with other salient dimensions of an alternative, such as the technical characteristics of a product, price is typically one of pivotal importance, for several reasons: the scale is unique, continuous and coherent, expressed in readily-understood units, and is especially simple to use for the purpose of comparison; further, price corresponds to a resource whose availability constitutes a strong constraint on potential choice behavior. Prior research on pricing has demonstrated a variety of results relevant to the present study. Research on reference pricing confirms the existence of a framework effect (Monroe and Chapman, 1987). This serves to emphasize the importance of simultaneously making use of the internal reference price (e.g., a linear

combination of past prices) as well as the external reference price resulting from the assortment's structure, the latter often playing a variety of different roles (e.g., Rajendran and Tellis, 1994). The existence of a zone of indifference or latency around the reference price has been established (Monroe, 1990), depending, on the one hand, on the price itself (through a kind of proportionality to the 'radius' of the zone of indifference (Monroe, 1973)) and, on the other hand, on individual-specific characteristics (such as confidence in the evaluation process), typically influenced by the frequency of purchase (Kalyanaram and Little, 1994).

The existence of an internal reference price has been questioned by studies finding poor memory for prices (Dickson and Sawyer, 1990). These results are, however, specific to the consumer goods sector, which is characterized by a wide offering of repeatedly-purchased products, and consequently by relatively low buyer involvement. Thus they can not be taken to strictly contradict the reference price hypothesis theory since, in the case of donation appeals, incorporating contextually-provided information is arguably part of any efficient evaluative strategy. The asymmetry of price effects: results from Game Theory, as well as Prospect Theory, lead to a formalized 'framework theory' (Thaler, 1985). Accordingly, alternative evaluation does not take place in an absolute manner but in a relative one, with gain or loss accounted in relation to a reference point. Pronounced sensitivity to loss, coupled with the process of attribute ratios comparison, offers compelling explanations for behavior such as aversion for extremes and choices involving explicit compromise (Simonson and Tversky, 1992). The main consequence of this theory is an asymmetry in the effects of price variations, whereby an increase in price in relation to the reference point (i.e., a loss) produces a greater absolute effect than an analogous decrease. While empirical results appear to confirm this hypothesis (e.g., Hardie, Johnson and Fader, 1993), it may also be at least partially explained by preference heterogeneity (Gonul and Srinivasan, 1994). The question remains as to whether this body of results, concerned as they are with consumer good pricing (e.g., orange juice, peanut butter), can be taken at face value in regard to donor behavior, which relies to a far greater degree on specific motivation and stronger involvement on the part the respondent (Belk, 1979).

Donor Behavior : With regards to door to door canvassing, many studies have decisively demonstrated the efficiency of manipulation techniques used in Social Psychology (Weyant, 1996). When communications were carried out through a mail drop, the scale used for donation appeals (henceforth, the 'appeals scale') played a role as external reference points, an effect exacerbated because such communication, constituting as it does an independent informational support, serves to reduce competition.

Research has addressed the relationship between amount requested of donors and the behavior subsequently expressed, in terms of frequency of giving and the average amount of such donations (Weyant and Smith, 1987; DeJong and Oopik, 1992). Two hypotheses – that of a negative relation between the amount requested and the frequency of giving, and that of the positive relation between the amount requested and the average amount of the gift – have recently found experimental confirmation (Schibrowsky and Peltier, 1995), standing in contrast to previous results. This research also revealed other intriguing behavior: while a substantial proportion of the population tended to 'go along' with the values expressed on the scale, the central scale value was not the one most often chosen. It has also been established, by manipulating scale extremes directly (i.e., by an increase in the value requested) or indirectly, that the frequency of giving is not systematically, negatively related to the average amount of the gift (Fraser, Hite and Sauer, 1988).

While these empirical results serve to confirm the influence of the scale itself on the success of donation appeals, their partial divergence emphasizes the effects of moderating variables and the need for an integrative model which takes into account both scale values and donor characteristics. This model developed presently is especially instructive in these regards, in that the use of different points on the appeals scale can lead to shifts in donor behavior without the total monetary yield of the collection drive being affected on way or the other.

THE CONCEPTUAL MODEL

According to the model developed thus far, the decision process for making a donation consists two phases: the decision to give, or acceptability, and the amount to be donated.

The Donation Decision. The decision to donate is strongly contingent on both the reputation of the organization making the request and the perceived worthiness of the cause (Alwitt, 1994), and further on the position of the reference gift in relation to the request made on the appeals scale (which typically includes several points, for example, $5, $15, $25 or $50). As with the decision to buy a product, a donation appeal will be considered if it lies within an acceptability zone bounded by a maximally- and minimally-acceptable level. While the maximum level is determined by consumer-specific budget constraints, the minimum can be viewed as having to do with a type of risk: a risk not of buying something of poor quality, but of the negative social impression associated with perceptions of miserliness. Manipulating the lower extreme of the scale should therefore result in a variation of the frequency of giving, a consequence of the 'small' donor's decision either to donate or not, as the case may be. Manipulating intermediate

values on the scale, while not anticipated to effect the frequency of giving, may nonetheless influence the amount one chooses to give.

The Donation Amount of the gift. In the absence of specific expectations, the internal reference, or expected, donation is determined by previous donations, if any, made by the individual. The external reference donation is that determined on the basis of the appeals scale and its mode of communication. In relation to the external reference, which is immediately available, recourse to the internal reference should be all the more readily accomplished in that it is accessible to memory, that is, because the donation was made frequently or recently. The previously-developed framework effect of the appeals scale suggests a concentration of gifts near the anchor points specified by the scale. When the decision to donate is made, the amount of the gift will depend on the perceived gap between the extreme anchor points of the appeals scale and the internal reference point. When the gap is perceived as too great, the individual rejects these anchors and instead appeals to an internal scale defined based only on even values (Stiving and Russel, 1997). When the expected donation, as determined above, lies between two values on the scale, economic constraints and the asymmetry of price sensitivity naturally result in a preference for the lower of the two anchor points; in the case of nearly identical absolute deviations, the gap between the expected gift and the anchor point immediately below would be perceived as weaker than that with the anchor value immediately above.

The latitude of acceptability zone around the reference point is determined largely by individual-specific economic constraints, as evidenced by the great degree of variation in donation amount across the donor pool. As is often the case when idiosyncratic perceptions are involved, Weber's Law, stating that the perception of gaps is a function of the present stimulation level, is useful here as a heuristic. Thus, the acceptability zone is conveniently expressed in the form of percentages of the reference donation, and a logarithmic transformation of the appeals scale makes it possible to determine identical sensitivities in such percentages; similarly, this renders an analogous determination possible for the distance perceived between reference donations and the scale's anchor points. Moreover, this process allows a log-normal distribution to standardize the relative gift-giving frequency for each donation segment.

DATA AND VARIABLES

Data

Segments. Donation behavior is influenced, primarily, by individual-specific factors. According to the so-called RFM (Recency-Frequency-Monetary) model widely used in the field of direct marketing, the behavior of an individual is (stochastically) determined by the RF of former behavior and by the average donation made.

The regularity or proximity of the gift (RF) encourages the use of an internal rather than an external reference for donation. Among the segments identified, based on observed donor behavior over the past two years, three donor segments have been selected for the present study: a segment of irregular donors by mail (IR), and two segments of regular donors offering their donations through two different channels: one mainly through mail (RM), the other typically through door-to-door canvassing (RC) but also by mail.

The amounts of prior donation, by hypothesis the principal individual determinant of the present donation, are known individually on the database. The regular donors groups (RM and RC) were partitioned in three groups based on a smoothed index of the previous donation amounts (less than 200, 200-400 and more than 400 FF respectively for RM1-3 and RC1-3). Irregular donors were partitioned into four subgroups (IR0-3), the first group being split to account for smaller donations from this segment (less than 100, 100-200 FF). Each of these ten resulting groups, as listed in Table 1, was randomly split, the first part receiving the standard scale and the second a test scale. The experiment was carried out as part of a French charity's national fundraising campaign; the size if the mail drop ranged from 1551 to 12390, according to subgroup, as listed in Table 2.

The appeals scales. Previous analyses of price scales have shown them to be broadly consistent with a logarithmic transformation of price, involving the determination of the target price, and fixing the upper and lower limits of the scale, by dividing or multiplying the target price by two. The appeals scales used each included five points, as in Table 1. The standard scale, which was used for previous mail appeals, was the same for all groups (100, 150, 250, 500, 1000 FF and "other amount"). For the test scales, high donors (RM3, RC3, IR3) received the same test scale. For the other groups, the anchor points were modified at the extremes (minimum, maximum) and at the center with the idea to adjust the frame to the previous donation (i.e. lower the frame for low previous donation as for group IR0). The small number of points on the scale made it possible to define it by its anchor points, rather than by appealing to synthetic summary indicators of its structure or distribution, such as the centroid, the range, the density or the progression (Hemple and Daniel, 1993).

Variables

By hypothesis, the appeals scale's effects are essentially contextual, and do not require a modification of the log-normal distribution underlying the forthcoming model of donation behavior. Distribution parameters have thus been

estimated for each of the ten groups, whereas the anchor point effects are presumed identical across groups.

Frequency of gifts by level of donation. The variable to be explained is the donation received, more specifically the donation distribution. Starting with gross values in French francs, gifts are classed in modes (M), either in single value classes for anchor points used on one of the scales (70, 100, 120, 180, 200, 250, 300, 350, 400, 500, 600, 750, 1000), for round numbers not used on the scale (50, 1500, 2000, 5000), or in intermediate classes bound by these values, the value retained being the log-center of the class. The cumulative distribution for donations is given precisely by the log-normal law; thus, the cumulative frequency for a given donation segment, transformed by the inverse-normal law, can be adjusted as a function of the logarithm of the mode value (e.g, by Henry's line or Q-Q plot). To avoid placing undue emphasis on distribution extremes (which are less reliable because of endpoint scaling effects), the classes corresponding to cumulative frequencies under 2.5% or over 97.5% are not taken into account, leaving 362 modes.

Explanatory variables. According to the conceptual model put forth thus far, the distribution of donations is influenced by the anchor points, which are either points on the scale or a round value, and by the distance of the class from these anchor points.

– *Log-normal distribution parameters*. Group RM2 was chosen arbitrarily to determine the constant, so that 19 parameters remain to be estimated: 9 dummy variables (1 for the group chosen, 0 otherwise) and 10 variables Log[M-M0] for each group, M, and 0 otherwise). The constant (M0), which is deducted from all donation amounts to account for the absence of smaller gifts, was set at 30 FF. This adjustment might perhaps be further improved through a systematic search for the best M0 parameter for each group.

– *Presence of donation class of on the scale presented (SCALE)*: binary variable, 1 if the point is present on the scale offered, 0 otherwise. For each combination (scale x group), there are therefore five non-zero values. In line with the prior hypotheses relating to scale value attraction, the expected coefficient sign is positive.

– *Even numbers (EVEN)*: binary variable, 1 if the price is a round number (whether or not it is on the scale), zero otherwise. Round prices are those corresponding to the internal value scale, and are associated with bank notes or large multiples thereof (50, 100, 200, 500, 1000, 2000, 5000 FF). Because

round numbers are also posited to play a modest role in 'attraction', the expected coefficient is positive, although its value is anticipated to be lower than that of any of the point scale coefficients.

– *Deviation in relation to anchor points:* By hypothesis, when there is no clear match between the internal reference point and the donation appeal, the expected donation will be that of the anchor value which is closest, as determined by the appeals scale or by the round value. Two effects are anticipated: first, that an anchor point's attraction will wane with distance; and, second, that there will be an asymmetry in effects, with transfer being easier towards the lower anchor than the higher. Two variables (DM and DP) are thus calculated as a logarithm of relative deviation of the mode (M) in relation to upper (UA) and lower (LA) anchor points.

$$DM = Min[0;Log((M-LA)/LA)+1] \qquad DP = Min[0;Log((UA-M)/UA)+1]$$

Adding the value of 1 makes it possible to obtain a variation interval of [-2; 0], with a monotonic decrease as a function of distance to the anchor point. When modes are points on the scale or even numbers, the distance is considered to be zero, and the variables (DM and DP) are thus set to zero. Since the estimation is done on the cumulative distribution and the values of DM and DP are negative, the attraction effect of an anchor point should result in a lowering of donation frequency for the modes, so that the expected sign for the DP coefficient is positive. By contrast, the attraction effect of an anchor point means that the cumulative frequency of giving is higher than the log-normal distribution, and the levels of higher donations should benefit from this cumulative effect: the expected sign of the DM coefficient is therefore negative.

EMPIRICAL RESULTS

Several findings are apparent from the raw results for the collection drive, shown on Table 2. The donation amount, on average, is positively influenced by the level of previous donation. For the regular donor segment and the standard scale, the amount rises from 144 FF for the first level (RM1) to 267 FF, then to 844 FF for the following groups. The relationship between donation frequency and the amount of the previous gift is also positive, though its behavior is not so regular as for the previous comparison. There is a systematic increase in donation frequency for the lower levels as they increase (i.e., 0 to 1 and 1 to 2), though this does not hold for the higher levels of prior donation (2 to 3).

As might be expected, segment-based differences suggest that the frequency of previous donation has a strong influence on donation frequency, rising from 14.1% for irregular donors (IR2) to 46.0% for regular donors (RM2) for the standard scale at a high level of prior donation. By contrast, the impact of

donation regularity on average donation amount is far weaker, and cannot be termed systematic. Scale effects are very limited at the aggregate level, and are in fact nearly negligible in relation to the effects of the two individual variables. When the test scale is displaced upwards in relation to the standard scale (all groups of regular donors, and groups 1 and 3 of the irregular donors), one expects an increase in the average donation amount and a decrease in the frequency of donations. While the data generally support these hypotheses, differences between results obtained on the test scale and those on the standard scale are not always significant, and in several cases are opposite to what is expected, in particular for segment RC. It can thus be deduced that displacing other scale points is sufficient to obscure similar changes on the lower end of the scale. The effect of context is confirmed by the high donation frequency on points of the scale : the frequency of gifts on the scale averages 76% with a minimum of 46.0% (test scale for RM2) and a maximum of 86.7% (standard scale IR1). However, the existence of an internal reference point is strongly suggested by the fact that donation frequency is lower for the test scale than for the standard scale, so that an individual is not overwhelmed by the context effect when the anchor point eschews round values: on average, donation frequency is 81.1% for the standard scale, against only 71.1% for the test scale.

Model estimation results.

The model requires 23 parameters for 362 observations and estimation is done by statistical regression (SPSS software). The overall results of the estimation, summarized in Table 3, offers strong support for overall model fit, suggesting that the model for cumulative frequencies offers a good measure of insight into these data ($F = 561.7$). All coefficients are significant ($p < .05$) and have the expected sign.

The coefficient obtained for the scale effect ($SCALE = 0.374) is quite high, far more so than that for the round value ($EVEN = 0.070); when the scale uses round values (e.g., those of common denominations), effects therefore accumulate (0.444). These coefficients must not be interpreted as constant values (i.e., as having linear effects) because, due to log-normal transformation, the effect on the donation distribution is dependend on cumulative frequency: near the scale mean, each point on the appeals scale corresponds to an increase in cumulative frequency of approximately 14.5% (i.e., Z increases from 0 to 0.37 and the frequency decreases from 50% to 35.5%). For a point at one-third the mean value, the effect is 9.1% (Z from 0.44 to 0.81, the frequency from 33% to 20.9%), while an anchor point placed at about 1/10th mean corresponds to only a 5.1% adjustment (Z=1.28 and 1.65). The adjustment is intriguing, and well predicts the relation between anchor points on the appeals scale. Estimated variable coefficients represent the attraction effects of anchor points corresponding to the hypotheses put forth at the outset: the effect on classes of previous donors is indeed negative (variable DM) and the anchor does indeed have an effect which

transfers over to the classes of previous gifts. Contrary to the hypothesis of an asymmetry of price effect, coefficients are not statistically different for increases and decreases in donation scale amounts ($p > .05$).

However, a deeper study of the donation behavior adjustments themselves offers several caveats regarding model limitations. First, adjustment is not perfect conformity with the model for certain modes, including several of the most frequent, such as 50, 100 or 120 FF. The 'concentration effect' on scale points is especially telling when distribution amplitude is small, which suggests that the interaction effect between these two constructs is at least important than the ones taken into account by the model, which are essentially main effects. Second, because of anchor point attraction effects, the model can be made to predict negative frequencies for certain modes, notably those observed with low frequency. Lastly, the logarithmic transformation of donation values induces a risk of bias: a frequency error in the 5000 FF donor class does not have the same consequences as an error of the same size in the 50 FF class.

CONCLUSION

The objective of this study is to contribute to improving decisions concerning the determination of anchor points on a scale. While the results are convergent with those of previous research, we further conclude that the framing of the individual donation decision is indeed influenced by external communications as represented by the so-called appeals scale. However, the effects of scale variation appear to assume far less importance than those due to individual donor characteristics, whether this involves the amount of the previous donation or the regularity of gift-giving. Understanding the manifold effects of scale manipulation can only take place if donor heterogeneity, vis-a-vis prior behavior, has been appropriately accounted for.

In an experimental framework, scale manipulation appears to have at most modest effects on aggregate level results, whether for overall yield or for the average donation. However, at the more detailed level of donation *classes*, transfer effects induced by scale point displacement stand in bold relief. It may well be the case that the near absence of aggregate effects is the result of compensating individual-level effects at each of the scale points.

The usual procedure, testing one scale after another, is difficult to apply when one takes into account the fact that reactions to contextual effects depend on individual behavioral variables. The model presented here is intended to explain the displacement of donations induced by varying appeals scale anchor points. With a simulation, using the model should make it possible to select those scales which are potentially best-adapted to the problem at hand. To understand the

effects of untested anchor points, the present model makes it possible, through interpolation, to estimate the effects of scale choice on the success of a specified donation drive.

Modeling scale effects through a log-normal distribution offers a satisfactory degree of fit to the collected donation data, and serves to confirm the utility of this distribution in the general area of pricing research, and can be construed as a first step in formulating a model allowing better comprehension of price scaling effects. The resulting model allows demonstration of the existence of two reference systems: one, the more frequently used, involving reference to points on an appeals scale, the other involving reference to round scale values. When donation appeals forego taking both effects into account, a significant proportion of potential donors can be expected resist such scaling effects and engage in repeat behavior.

Beyond the prospect of improving the model, certain hypotheses regarding scale effects on donor behavior remain to be validated. This is particularly true for the hypothesis concerning asymmetry: the convergent view of prior literature is that an individual is, loosely speaking, more apt to risk a loss than to seek an equivalent gain, so that a scale point's attraction effect should be greater for higher donation classes than for lower ones. The extant results of the model do not permit the confirmation this effect, which will be addressed in subsequent studies.

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***Table 1** : Appeals Scales*

		Standard Scale					
		100 F	150 F	250 F	500 F	1000 F	Other
		Test Scales					
Segments	*Prior Donation*			*Center*			
RM and RC	*1 (<200 F)*	120 F	180 F	250 F	350 F	500 F	Other
	2(2-399 F)	120 F	200 F	350 F	500 F	750 F	Other
	3 (_400 F)	150 F	250 F	400 F	600 F	1000 F	Other
IR	*0 (<100 F)*	70 F	120 F	200 F	300 F	400 F	Other
	1(1-199 F)	120 F	200 F	350 F	500 F	750 F	Other
	2 (2-399 F)	100 F	150 F	200 F	350 F	500 F	Other
	3 (_400 F)	150 F	250 F	400 F	600 F	1000 F	Other

***Table 2** : Average gift and frequencies for each sub-group*

		Segment IR		*Segment RM*		*Segment RC*	
Prior Donation Level		*Scales*		*Scales*		*Scales*	
		Standard	*Test*	*Standard*	*Test*	*Standard*	*Test*
0	*# Mail drop*	12390	12439				
	Mean Donation	134.3	132.1				
	Response rate	5.5%	5.8%				
1	*# Mail drop*	5648	5666	10810	10812	3539	3941
	Mean Donation	183.9	186.2	144.4	151.8	142.7	158.3
	Response rate	11.5%	11.0%	42.4%	40.6%	13.6%	13.6%
2	*# Mail drop*	3623	3630	7560	7566	1836	1838
	Mean Donation	272.1	268.8	267.3	274.6	285.3	285.6
	Response rate	14.1%	13.5%	46.0%	46.2%	18.5%	18.7%
3	*# Mail drop*	2691	2702	7540	7544	1548	1551
	Mean Donation	663.3	712.8	844.0	847.5	910.4	902.2
	Response rate	12.0%	13.7%	48.1%	45.6%	20.9%	19.5%

Table 3 : *Model Estimation Results (n = 362)*

	Segment IR				*Segment RM*			*Segment RC*		
Prior Donation	*0*	*1*	*2*	*3*	*1*	*2*	*3*	*1*	*2*	*3*
M0	30	30	30	30	30	30	30	30	30	30
a0	6.32	0.97	1.24	3.97	1.99	-12.13*	3.94	2.10	-2.05	3.34
t	*16.10*	*1.83*	*2.62*	*10.09*	*3.75*	*-36.06*	*-33.86*	*4.16*	*-3.61*	*8.16*
a1	1.36	2.29	2.04	1.32	2.18	2.26	1.27	2.15	2.61	1.33
t	*32.10*	*27.85*	*33.00*	*38.35*	*25.63*	*36.66*	*35.21*	*27.92*	*31.15*	*36.11*
SCALE	0.37	*DM*	-0.21	*EVEN*	0.07	*DP*	0.19			
t	*11.88*	*t*	*-9.18*	*t*	*2.23*	*t*	*9.48*			
R2	0.98	*F*	561.70							

** constant*