



FACULTY OF ECONOMICS AND BUSINESS ADMINISTRATION

The Role of Database Marketing in Improving Direct Mail Fundraising

Griet Verhaert

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Promotor: Prof. dr. Dirk Van den Poel

Doctoral Jury:

Prof. dr. Arnaud De Bruyn
(ESSEC, Paris)

Dean Prof. dr. Marc De Clercq
(Universiteit Gent)

Prof. dr. Maggie Geuens
(Universiteit Gent)

dr. Leo Paas
(Vrije Universiteit Amsterdam)

Prof. dr. Mario Pandelaere
(Universiteit Gent)

Prof. dr. Dirk Van den Poel
(Universiteit Gent)

Prof. dr. Patrick Van Kenhove
(Universiteit Gent)

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NEDERLANDSTALIGE SAMENVATTING

Een groot aandeel van de inkomsten van non-profitorganisaties komt van particuliere giften. Het belangrijkste medium voor het verkrijgen van die giften, is nog steeds de traditionele brief, of direct mail. Als non-profitorganisaties meer fondsen willen werven, kunnen ze dus het best zoeken naar betere manieren om brieven voor fondsenwerving te gebruiken. Aangezien de geschiedenis van de verzonden campagnes en de reactie van potentiële schenkers vervat zit in de database van de organisatie, kan database marketing hierbij een belangrijke rol spelen. Het succes van een direct mail campagne wordt in eerste instantie weerspiegeld in de opbrengst per verzonden brief. Deze wordt voornamelijk door twee zaken bepaald: de responsgraad (d.w.z., de beslissing om al dan niet te geven) en de grootte van de gift (m.a.w., de beslissing hoeveel te geven). Deze succesparameters worden geëvalueerd met het oog op het doel van de campagne. De campagnes kunnen namelijk onderverdeeld worden in drie groepen, die elk gerelateerd zijn aan een andere fase in de levenscyclus van een schenker. Acquisitiecampagnes hebben als doel potentiële schenkers te overhalen om een eerste gift te doen. Retentiecampagnes hebben als bedoeling actieve schenkers te overtuigen om de organisatie te blijven steunen. Reactivatiecampagnes, tenslotte, worden verstuurd om inactieve schenkers te overtuigen om opnieuw actief te worden. In dit proefschrift wordt zowel aandacht besteed aan technieken die te maken hebben met de inhoud ('wat' willen we in de brief communiceren), als met technieken die inspelen op de ontvanger van de boodschap ('aan wie' richten we de brief).

De eerste twee onderzoeken bestuderen de invloed van het vraagbedrag in de brief op de opbrengst van de campagne. Omdat de hoogte van het vraagbedrag afhankelijk is van de persoon die wordt aangeschreven (€50 klinkt veel voor de ene schenker maar kan weinig lijken voor de andere), onderzoekt de eerste studie gepersonaliseerde vraagbedragen. Dat betekent dat aan de hand van de grootte van ieders gift in het verleden voor elke schenker een best passend gepersonaliseerd vraagbedrag voorgesteld wordt. Daarnaast gaan we na of schenkers beïnvloed worden door andere schenkers (d.w.z., sociale beïnvloeding). De resultaten tonen aan dat een gedifferentieerde communicatieaanpak effectiever is. Bovendien vinden we dat sociale beïnvloeding de inkomsten ontzettend doet stijgen in campagnes die als doel hebben nieuwe schenkers aan te trekken.

In de tweede studie onderzoeken we opnieuw het vraagbedrag. Ditmaal nemen we een andere strategie gerelateerd aan het vraagbedrag: het vermelden van basiskapitaal (d.w.z., ‘seed money’). Deze techniek bestaat uit het signaleren van een doel (d.w.z., ‘threshold’) dat bereikt moet worden (bijv., €12.000) om een project op te starten en de aankondiging dat een deel van het geld reeds verzameld is (bijv., €5.000) maar dat men op zoek is naar schenkers om het resterend bedrag (bijv., €7.000) in te zamelen. In deze studie onderzoeken we hoge versus lage doelen enerzijds, en 0%, 50% of 67% basiskapitaal anderzijds. Onze studie toont aan dat ‘seed money’, ongeacht de hoogte van de threshold, in het algemeen een effectieve strategie is. We identificeren hierbij echter een erg belangrijke beperking, namelijk dat ‘seed money’ in combinatie met een laag doel leidt tot suboptimale opbrengst in campagnes gericht op de meest trouwe schenkers.

De derde studie onderzoekt in welke mate twee metingen van empathie (m.a.w., ‘empathic concern’ en ‘personal distress’) geefgedrag (d.w.z., de beslissing om te geven en de hoogte van het bedrag) helpen verklaren bovenop de traditionele voorspellers (RFM, intenties, leeftijd en inkomen). De analyses onthullen dat beide metingen van empathie een andere rol spelen in geefgedrag. Daarnaast toont deze studie aan dat enkel focussen op geefgedrag t.o.v. één organisatie kan leiden tot verkeerde conclusies.

De laatste studie gaat een stap verder door niet enkel te focussen op één organisatie maar door de interferentie van campagnes van verschillende organisaties in rekening te brengen. We onderzoeken een belangrijke gangbare en relatief goedkope strategie om nieuwe schenkers te werven: het ruilen van adresbestanden tussen organisaties onderling. Deze studie gaat na in welke mate deze praktijk ook schadelijk kan zijn voor de loyaliteit van bestaande schenkers. De analyses tonen duidelijk aan dat ruilen gepaard gaat met een negatieve invloed op de loyaliteit van bestaande schenkers. Voor alle zestien organisaties vinden we dit nefast effect van competitie in de markt. Echter, de sterkte van dit effect verschilt naargelang de organisatie en we zien dat organisaties met een sterk merk meer weerbaar zijn voor competitie dan organisaties met een zwakker merk.

CHAPTER 1 : INTRODUCTION

CHAPTER I: INTRODUCTION

1 MOTIVATION

Nonprofit involves a substantial amount of money. In 2008 in the US alone, individuals gave \$229.28 billion (National Center for Charitable Statistics, 2009). The majority of the funds are raised from private donors. The channel these individuals may respond to, varies from face-to-face, phone call, billboard, television commercials, radio advertising, inserts, online activities to direct mail. Regarding the latter, fundraisers report that direct mail remains the most successful media to raise individual donations (Direct Marketing Association, 2010). Consequently, because of the importance of this medium, charities have a vested interest in improving the effectiveness of their direct-mail fundraising campaigns. These strategies mainly focus on the content (e.g., Berger & Smith, 1997) of the solicitation letter as well as on optimizing the target selection (e.g., Malthouse & Derenthal, 2008). Studying content is useful to determine what message to communicate to potential donors. Target selection is traditionally approached by RFM (i.e., recency, frequency and monetary value) models aimed at predicting response behavior to determine who to mail. This dissertation aims to provide new insights into both dimensions of improving the effectiveness of direct-mail fundraising campaigns. In addition, because of the evolution in direct marketing from crude ‘junk mail’ to sophisticated, carefully targeted and strategically planned ‘customer relationship management’ (Imms, 2004), we focus on how database marketing can be an important tool in this optimization process.

Real-life Studies. A lot of studies on charitable giving are based on laboratory experiments investigating intentions to donate. Moreover, these prior studies often investigate a limited number of university students. Recently, however, some academics (e.g., List, 2008) stressed on the growing importance of field experiments because of the possible discrepancy between the laboratory setting and the field situation. Field studies require more effort in collecting the data but they have the clear benefit of investigating the real situation. The use of natural field experiments, instead of laboratory experiments, is one of the key contributions of this dissertation to the investigation of consumer behavior and more specific charitable giving. Moreover, an important added value of this dissertation is the managerial insights we generate

through field studies. In our field setting, we have the advantage of implementing controlled experiments in real direct-mail fundraising campaigns of European charitable organizations. Additionally, we had full access to the mailing and payment history as well as some donor demographics that were stored in the databases of the charities. Furthermore, by merging databases of 23 charities, we were able to monitor direct mailings and donation behavior across multiple charities at an individual level. This gives us the unique opportunity to empirically study the competitive effects. In all our studies, the database of the charity was analyzed. More concrete, the first, second and fourth study involve large-scale field experiments in direct mail campaigns whereas the third study involves survey data collected from real donors.

Campaign Success Rate. To investigate the impact of any technique aimed at improving direct-mail fundraising campaigns, one needs to evaluate the campaign success rate. In general, the campaign success rate is defined in terms of revenue, response rate and gift size. Regarding revenue, we consider revenue per solicitation that was sent instead of overall revenue. Campaign revenues are driven by two aspects: the decision to donate and generosity. On the one hand, a potential donor needs to decide whether or not to donate. The decision of each potential donor is reflected in the response rate of a particular campaign. On the other hand, once a donor decides to respond to the direct mail, (s)he needs to decide how much to donate. This is reflected in the average gift size (conditional on donating) of the campaign. For fundraising management, these three parameters (i.e., revenue, response rate and gift size) are considered to achieve maximum effect for the specific campaign objective. While, some of the previous studies on charitable giving only considered one of the three parameters (e.g., Shang & Croson, 2007), we intend to investigate all three parameters through this dissertation.

Donor Lifecycle. Whereas most previous studies only considered one donor segment, this dissertation tries to capture the whole donor lifecycle where possible. In respect to the campaign objective, charities often distinguish between three types of direct-mail fundraising campaigns along the donor lifecycle. The first type is called the acquisition campaign and is meant to attract new donors by sending the solicitation to people who have never donated to the charity before. These addresses are hired or are obtained through exchange with other charities. In sum, this segment reflects the first stage in the donor lifecycle and these potential donors are called prospects. Retention campaigns are the second category in which the charity

tries to preserve the current donors and to upgrade their donation behavior. This segment involves the active donors. The third category involves reactivation campaigns, meant to reactivate donors who had dropped out and who have not given for extended periods of time. This segment is called lapsed donors. However, depending on the stage in the donor lifecycle and thus the campaign objective, one of the parameters of campaign success rate (cfr., supra) may become more or less crucial as the focus of acquisition campaigns is to maximize response rate rather than to obtain a high average donation¹. For retention purposes, overall revenue is of relevance. Finally, as in acquisition, response rate is also of prime importance in reactivation campaigns.

Content. There is an extensive part in literature investigating the content of direct mail campaigns. Some studies focused on outside characteristics (e.g., envelope type) to increase opening behavior (e.g., De Wulf, Hoekstra, & Commandeur, 2000) while other studies investigated the inside characteristics of a direct mail campaign. Related to these latter studies, we might refer to Das, Kerkhof, and Kuiper (2008) investigating message framing or Obermiller (1995) investigating sick versus well baby appeals. However, because we want to investigate how database marketing can improve the content of fundraising appeals, we examine how a personalized donation request, extracted from the database, can make fundraising campaigns more effective. Therefore, we investigate the impact of mentioning a specific amount in the donation request. On the one hand, we explore personalized donation amounts. On the other hand, we inspect the mentioning of the total amount that is required for a specific project. Moreover, based on the database of the charity, it is possible to distinguish the less loyal donors from the more loyal donors based on the RFM-values.

Target. Predictive models are often used to optimize the household list in direct mail campaigns. These scoring models are traditionally based on the RFM-values and sociodemographics of the households. Besides, certain studies on charitable giving investigate personality traits to have a better understanding of underlying motivations and reasons of charitable giving. Therefore, it can be relevant to bring both streams together by examining whether it is useful to collect information about psychological measures and store this information in the charity's database. Therefore, we investigate whether certain personality

¹ Obviously, maximizing both response rate as well as gift size is desired and our statement of the importance of response rate does not hold for extreme low gift sizes.

traits capture unique variance in predicting donation behavior that is not captured by RFM, intentions nor sociodemographics.

Competitive effects. In general, previous studies on donation behavior focus on donation behavior toward one single charity. In reality, however, people receive donation requests from multiple charities. Therefore, in the third and fourth study of this dissertation, we look at competitive effects by investigating donation behavior toward multiple charities. In the third study we clearly show that ignoring the competitive environment by focusing on one charity, may lead to suboptimal conclusions. Therefore, in the last study, we go one step further by investigating competition among charitable direct mail campaigns.

2 OUTLINE OF THE DISSERTATION AND RESEARCH OBJECTIVES

This dissertation contains four studies written in such a way that they can be read independently. In the second and third chapter, we investigate the donation request of the solicitation letter by exploring personalized suggested donation amounts, extracted from the database, as well as the announcement of seed contributions. In the fourth chapter, we examine whether psychological measures of empathy are relevant predictors of donation behavior over and above the traditional variables. In the last study, we focus on recruiting new donors through list exchange and investigate whether it is harmful for charities to give their active addresses to other charities.

In the second and third chapter we focus on the content of the direct mail. Both studies are field experiments in which we explore the specific donation request in the solicitation letter. The first study (the second chapter) investigates personalized donation amounts that are based on previous donation behavior. Charities often ask the same donation amount to all potential donors. This approach ignores that each individual may have different decision criteria and thus adaptation levels (Helson, 1964). For example, a donation request of €30 might be perceived as rather low for donors who traditionally give €60 and the same donation request might be perceived as rather high for donors who normally give €10. Based on the database of the charity, it is relatively easy to calculate a donation amount that fits within the individual's range of acceptable donations. Previous studies have examined the influence of suggested donation amounts on consumer behavior such as donation behavior, without accounting for adaptation-level theory (Helson, 1964). As a result, we have little information on the effectiveness of different personalized suggested donations. In addition, the specific donation

amount could also be complemented with social information, for example: referring to other donors who are donating. In general, consumers are often influenced by behavior of others. Hence, this study also investigates social influence as a compliance strategy to induce a person's willingness to respond to a donation request. While previous research on social comparison in fundraising has generally focused on referring to a specific donation amount of another donor (e.g., Croson & Shang, 2008), it remains unclear whether differences in campaign success rates are due to merely mentioning that others donate or to mentioning the specific level of the donation. To map these issues, this study clearly sets suggested donation amount and social comparison apart. In sum, our first study investigates how tailoring the donation request along the donor lifecycle, in terms of suggested donation amount and social influence, could improve the campaign success rate.

Next to personalized donation amounts, the second study (third chapter) investigates another strategy related to the donation request: the announcement of seed money. Charities often use this strategy by showing that some funds (i.e., seed money) have already been raised in order to reach a certain threshold to realize the benefaction. Consequently, this technique mainly consists of two components: the level or percentage of seed money and the size of the threshold. Suppose that a charity needs €12.000 to start up a specific project. Here, the €12.000 is the threshold and the €5.000 reflects the seed money. Whereas previous

STUDY	TITLE	DONOR SEGMENT	ROLE DATABASE	METHOD	CONTRIBUTION	MANAGERIAL IMPLICATIONS
1	IMPROVING CAMPAIGN SUCCESS RATE BY TAILORING DONATION REQUESTS ALONG THE DONOR LIFECYCLE ¹	<ul style="list-style-type: none"> • PROSPECTS ACTIVE DONORS • LAPSED DONORS 	<ul style="list-style-type: none"> • CALCULATION OF PERSONALIZED SUGGESTED DONATION AMOUNTS BASED ON PAST DONATION BEHAVIOR 	<ul style="list-style-type: none"> • NATURAL FIELD EXPERIMENT 2X3X3 BETWEEN SUBJECTS • N=57,513 	<ul style="list-style-type: none"> • DISTINGUISH BETWEEN SOCIAL INFLUENCE AND THE AMOUNT • CONSIDERING EACH DONOR'S 'ZONE OF ACCEPTABLE DONATIONS' 	<ul style="list-style-type: none"> • ADAPT THE MESSAGE ON THE SEGMENT
2	THE ROLE OF SEED MONEY AND THRESHOLD SIZE IN OPTIMIZING FUNDRAISING	<ul style="list-style-type: none"> • PROSPECTS ACTIVE DONORS (HIGH – LOW FIDELITY) 	<ul style="list-style-type: none"> • CALCULATION OF LOYALTY SCORE BASED ON PAST DONATION BEHAVIOR 	<ul style="list-style-type: none"> • NATURAL FIELD EXPERIMENT 2X3X3 BETWEEN SUBJECTS • N=25,617 	<ul style="list-style-type: none"> • INVESTIGATION OF THE INTERACTION BETWEEN THRESHOLD LEVEL AND SEED MONEY 	<ul style="list-style-type: none"> • SEED MONEY IS NOT ALWAYS A GOOD STRATEGY
3	EMPATHY AS ADDED VALUE IN PREDICTING DONATION BEHAVIOR ³	<ul style="list-style-type: none"> • ACTIVE DONORS 	<ul style="list-style-type: none"> • CALCULATION OF RFM VARIABLES MEASURES OF EMPATHY 	<ul style="list-style-type: none"> • SURVEY • N_A=1385; N_B=2530 	<ul style="list-style-type: none"> • THE ROLE OF EMPATHY ON TOP OF TRADITIONAL PREDICTOR SETS • DISTINGUISH BETWEEN DECISION TO DONATE AND GENEROSITY 	<ul style="list-style-type: none"> • DATA AUGMENTATION • DISTINCTION DECISION AND GENEROSITY
4	ASSESSING THE NEGATIVE IMPACT OF COMPETITION IN DIRECT MAIL FUNDRAISING	<ul style="list-style-type: none"> • PROSPECTS ACTIVE DONORS 	<ul style="list-style-type: none"> • CALCULATION OF RFM VARIABLES AND MAILING PRESSURE • MONITORING DONATION BEHAVIOR ACROSS 23 CHARITIES 	<ul style="list-style-type: none"> • NATURAL FIELD EXPERIMENT • N=72,809 	<ul style="list-style-type: none"> • CONTROLLING COMPETITION ACROSS MULTIPLE BRANDS AT AN INDIVIDUAL LEVEL • ALL CHARITIES ARE HURT BY COMPETITION • RELEVANCE OF BRAND EQUITY 	<ul style="list-style-type: none"> • THE LOWER THE BRAND EQUITY, THE BETTER TO PROTECT THE HOUSEHOLD LIST

¹ CONDITIONALLY ACCEPT IN JOURNAL OF INTERACTIVE MARKETING

² SECOND ROUND IN EXPERIMENTAL ECONOMICS

³ SECOND ROUND IN JOURNAL OF BUSINESS RESEARCH

Table 1: An overview of the different studies relevant to our research.

studies investigated the role of seed money by considering one threshold (e.g., List & Lucking-Reiley, 2002; Rondeau & List, 2008), we conducted a first study that incorporates different sizes of the threshold in combination with different levels of seed money. Moreover, the effectiveness of direct-mail campaigns may differ regarding loyalty of the customer (e.g., Rust & Verhoef, 2005). Because the impact of seed money across different donor segments has never been studied before, we included three different groups: prospects, low fidelity donors and high fidelity donors.

The third study (fourth chapter) is more related to target selection instead of optimizing the content of the campaign. Because the understanding of charitable giving is a crucial element in attracting and retaining private donors, we consider past behavior and socio-demographics as traditional predictor sets of charitable giving. While the first often captures recency, frequency and monetary value (i.e., RFM variables), the latter reflects, for example, features like income and age. Prior studies regularly consider intentions as good indicators of consumer behavior. This study, however, examines whether and how psychological measures of empathy can improve these traditional models of charitable giving. More specifically, the focus lies on the personality traits empathic concern and personal distress. According to Davis (1983), both constructs involve emotional dimensions of empathy and reflect distinctive feelings toward unfortunate others or oneself because empathic concern is other oriented and personal distress is self oriented. Whereas previous research often proposes empathy as an explanation for helping behavior, this study looks at the predictive power of both personality measures on top of past behavior, intentions, and socio-demographics. In particular, the study considers two distinctive aspects of charitable giving: the decision whether or not to contribute on the one hand, and the generosity of the donor (i.e., donation amount in case of donating) on the other hand. In sum, this study investigates the relevance of the above predictor sets in a real charitable fundraising setting for both dimensions.

The last study (fifth chapter) involves the exchange of addresses between charities. Charities often exchange their household lists with each other. This implicates a ‘stream of receiving’ on the one hand and a ‘stream of giving’ on the other hand. For charities related to this first stream, this exchange has two main advantages. First, while renting/purchasing addresses is very expensive, exchanging addresses avoids monetary payments. Consequently, this practice lowers the acquisition cost. Second, the fact that the charity receives a list of households who donated in the past, might indicate that these households are quite sensitive to fundraising

appeals. However, next to these benefits, it remains unclear whether exchanging addresses could hurt the ‘mother’ charity. This question relates to the stream of giving and may or may not lead to missed funds. For the mother charity, it is therefore extremely relevant to understand the consequences of giving the addresses on the donation behavior of its initial donors. In other words, for these mother charities it might be interesting to discern whether external charities cannibalize their funds. Beside this general question, it might be of interest to look for specific profiles of charities which are more or less sensitive to these competitive effects.

The final chapter of this dissertation (chapter 6) concludes with a summary of the individual chapters and our main conclusions, implications, limitations and recommendations for further research.

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**CHAPTER 2 : IMPROVING
CAMPAIGN SUCCESS RATE BY TAILORING
DONATION REQUESTS ALONG THE DONOR
LIFECYCLE**

CHAPTER II:

**IMPROVING CAMPAIGN SUCCESS RATE BY TAILORING
DONATION REQUESTS ALONG THE DONOR LIFECYCLE**

ABSTRACT

Since charitable fundraising relies heavily on direct mail, this paper studies how tailoring donation requests along the donor lifecycle could improve campaign success rate. Our field study provides a unique combination of three parameters whose combined interaction has not been studied to this date: donor segment, suggested personalized donation amount and social comparison, resulting in a 3 x 3 x 2 between-subjects design. Taking into account the donor's zone of acceptable prices, we show that for acquiring and reactivating donors the use of a recently suggested donation amount is most effective, whereas for retaining donors, it is preferred to use an average amount. Our results also demonstrate that social comparison is an excellent acquisition strategy, but that it could be harmful when reactivating lapsed donors. Social comparison was not found to have an effect on the donation behavior of current donors.

1 INTRODUCTION

Charities have a vested interest in improving their direct mail fundraising campaigns. These strategies mainly focus on optimizing the target selection (e.g., Malthouse & Derenthal, 2008), as well as on the content of the appeal (e.g., Berger & Smith, 1997). Target selection is traditionally approached by RFM models (i.e., recency, frequency and monetary value) aimed at predicting response behavior to determine whom to mail. Studying content is useful to determine what message to communicate to potential donors. Here, requesting a specific donation amount (SDA) has become a frequently used strategy in professional fundraising: direct mail for fundraising often proposes a specific donation amount, commonly an identical amount, at least per segment, for all potential donors. However, this approach ignores that each individual may have different decision criteria based on previous experience. Moreover, with very low additional costs, personalized donation suggestions are relatively easy to calculate as historical transactional data are stored in the database. In addition, the SDA could also be complemented with social comparison: referring to others who are donating.

With the increasing implementation of SDA in letters soliciting fundraising, the question now is to establish what type of donation request is best to suggest to each type of donor, based on their previous behavior. Options here are the choice of donation level (SDA) and the option to mention donations made by other donors. More specifically, we want to explore how these different types of donation requests possibly influence campaign success rate in terms of response rate, donation size, and overall revenue. For fundraising management, these three parameters are considered to achieve maximum effect for the specific campaign objective: in acquisition campaigns, for example, maximizing the response rate is more important than maximizing the size of the donations.²

Research has demonstrated that SDA, social comparison or characteristics of the segment influence donation behavior. Yet, key aspects for understanding this interaction remain unexplored. First, previous studies have examined the influence of SDA on consumer behavior such as donation behavior, without accounting, however, for adaptation-level theory (Helson, 1964). As a result, we have little information on the effectiveness of different personalized suggested donations. Second, previous research on social comparison in fundraising has generally focused on referring to a specific donation amount of another donor

² Obviously, maximizing both response rate as well as gift size is desired and our statement of the importance of response rate does not hold for extreme low gift sizes.

(e.g., Croson & Shang, 2008). It remains unclear whether differences in campaign success rates are due to merely mentioning that others donate or to mentioning the specific level of the donation. To map these issues, this study clearly sets SDA and social comparison apart. Third, the type of segment that is targeted has not been consistently considered in the research design of previous studies. As a complicating factor, the effectiveness of communication types may be different across segments (e.g., De Wulf, Odekerken-Schröder, & Iacobucci, 2001). Most studies on recommended donations have focused on a single segment, either on a cold list (i.e., people who never donated to the charity before) or a warm list of current donors. Yet, Wolk and Spann (2008), borrowing from pricing literature, have found that the effect of reference prices is likely to differ among customer segments, and they suggest that further research has to consider these differences. Consequently, we aim to incorporate three segments into a single study by making a distinction between: prospects who never donated before (i.e., acquisition campaigns), active donors (i.e., retention campaigns), and donors who lapsed (i.e., reactivation campaigns). Additionally, this study is first to test the type of a personalized reference amount (i.e., average, recent or maximum) and social comparison (i.e., absent or present) across these three different segments. In sum, the main purpose of this article is to examine the role of personalized SDAs, extracted from the charity's database, combined with social comparison across three relevant segments.

In a direct mail setting, this study presents theoretical background and data from a large-scale field experiment in Europe³, showing the need to adopt different donation requests along the donor lifecycle. We aim to extend the current literature on this issue and to provide advice for the practicing fundraising manager. Our findings not only have implications for professional fundraisers. In general, direct marketers who want to optimize the price suggested may borrow from these results, for example for interactive pricing mechanisms. The remainder of this article proceeds as follows. The next section provides the theoretical background regarding reference prices and the use of social comparison in charitable appeals, leading to specific hypotheses. We then present results from a controlled field experiment testing these hypotheses. Next, the conclusions of our study are framed in the extant literature. Finally, we outline suggestions for future research and implications for fundraising managers.

³ We analyzed monetary donation behavior in Euros. During our experiment, €1 corresponded to \$1.34.

2 CONCEPTUAL BACKGROUND AND FORMULATION OF HYPOTHESES

2.1 SEGMENTS

In this study, we consider three relevant segments because charities often distinguish between three types of direct mail fundraising campaigns. The first type is called the acquisition campaign and is meant to attract new contributors by sending the solicitation to people who have not contributed to the charity before. These addresses are rented or are obtained by exchange with other charities. The focus of acquisition campaigns is to maximize the response rate rather than to obtain a high average contribution. Retention campaigns are a second category in which the charity tries to preserve the current contributors and to upgrade their donation behavior. In third place, charities may try to reactivate donors who drop out and who have not given for extended periods of time. As in acquisition, the response rate is also of primordial importance in reactivation. Consequently, we want to incorporate three segments into one study by making a distinction between prospects who never donated before (i.e., acquisition campaigns), current contributors (i.e., retention campaigns), and donors who lapsed (i.e., reactivation campaigns).

2.2 SUGGESTED DONATION AMOUNT: SDA

In this section, we first provide an overview of the literature on a fixed donation amount that is the same for all potential donors. We then argue that differentiating the amount could be more effective when personalizing the amount to a person's donation history as well as to the segment of donors targeted.

Fixed Donation Requests. In direct marketing fundraising, it is generally accepted (Brockner, Guzzi, Kane, Levine, & Shaplen, 1984) that asking for a specific amount is better than not mentioning an amount. In practice, SDAs are regularly observed in fundraising campaigns for charitable and other public organizations. Over the last couple of decades, an increasing number of researchers have examined the effectiveness of this common practice. No uniform picture emerges, however, from the marketing and psychology literature examining recommended donations in a fundraising perspective.

A first stream of research investigated the use of an SDA by comparing the presence of an SDA with a control condition in which individuals were simply asked for a donation without

mentioning a specific amount. Weyant and Smith (1987), for example, found no difference in revenues between the presence of SDAs of \$5-25 or \$50-250, and the absence of a donation request in a direct mail acquisition campaign. In contrast, Fraser, Hite, and Sauer (1988) showed that, compared to not mentioning a specific donation amount, recommending a \$20 donation for the Capitol Area Humane Society increased the gift size in a door-to-door fundraising campaign targeted at the segment of prospects. Additionally, also in acquisition, Brockner et al. (1984) demonstrated that the probability of a donation increased when an SDA of \$1 or \$5 was mentioned in telephone fundraising, as well as in face-to-face fundraising. Based on a public goods game, Croson and Marks (2001) examined this effect of SDA more in depth. They found that the effectiveness of recommended donations depends on the valuations⁴ of the donors. When valuations were heterogeneous, the recommended donations affected the revenues positively. Because in a fundraising context, a heterogeneous valuation environment is more realistic than a homogeneous environment, the authors interpret these results as support for the effectiveness of recommended donations in fundraising appeals. In sum, most previous studies on the use of SDA demonstrated the benefit of including a specific amount in the donation request. Nevertheless, it remains unclear whether the use of a suggestion level affects response rate, donation size or both. The size of SDA amounts differs across studies, making a comparison more difficult.

Professional fundraisers opting for a SDA then have to decide on the specific amount to ask. Consequently, a second stream of research focused on the level of the SDA by comparing different fixed SDAs or, in other words, identical SDAs for all individuals in one experimental group. In this context, Schwarzwald, Bizman, and Raz (1983) tested four types of anchor conditions: none, low (40 Israeli pounds or \$1.13), medium (50 Israeli pounds or \$1.42) and high (60 Israeli pounds or \$1.70) and did not find any difference in donations. Weyant and Smith (1987) tested small SDAs versus high SDAs in both a door-to-door and a mailing campaign toward prospects. They demonstrated that small anchors result in higher compliance without a decrease in gift size. They concluded that more money was raised by asking for lower SDAs than for higher SDAs. In contrast, Doob and McLaughlin (1989) found that, in a direct mail campaign toward previous donors, larger SDAs lead to larger donation revenues. At first sight, the findings from previous research for SDAs seem

⁴ Croson and Marks (2001) manipulated the valuations by equal or different bonus payments when the public good is met. This induced valuation reflected how the public good is evaluated by the donors (i.e., equally or differentially).

inconsistent. This may be attributed to differences in study context. First, as Doob and McLaughlin (1989) commented, the segment of donors differed. These authors considered previous donors to the organization while many other studies investigated SDA for prospects who had never donated to the charity before. A second difference in study context is the medium used for the SDA. Although some studies investigated SDAs in a direct mail setting, most studies were conducted in a face-to-face context. Further research is needed to examine these differences in segment and medium as separate independent parameters. Next to differences in context, previous studies used different absolute values for SDAs, which leads to mixed evidence. Relative notions, such as a 'higher' request are then difficult to compare over various studies. Moreover, also in line with the discussion of Doob and McLaughlin (1989), there is a need for SDAs to appear to be within a plausible range for donations. All of these studies investigated one general fixed SDA that was the same for all individuals in a certain segment or medium. In other words, these studies do not distinguish between different individuals. That is why it is interesting to learn how to optimize individual SDAs and to study their effect on revenues

Personalized Donation Requests. To address the common shortcomings in previous studies on SDAs, we rely on the comprehensive literature on behavioral pricing. In general, scholars agree that consumers make judgments and choices based on a comparison of the observed market price to the individual's internal reference price. Kalyanaram and Winer (1995) defined a reference price as a norm that serves as a neutral point for judging actual prices. The behavioral foundations for the concept of a mental reference price originates in psychology. adaptation-level theory (Helson, 1964) is the most used rationale for the reference price concept (Kalyanaram & Winer, 1995). According to this theory, the perceived magnitude and effect of a certain stimulus depend on the relation of that stimulus to prior stimuli. The preceding stimuli generate an adaptation level, and subsequent stimuli are evaluated in relation to this adaptation level. Consequently, the adaptation level is the stimulus value at which the judgment is centered or anchored. Helson's (1964) adaptation-level theory is frequently proposed to explain the influence of a reference price on consumer decisions by assuming that the judgment of a consumer consists of a comparison of the current stimulus to the adaptation level, which is based on exposure to past stimuli. Applied to behavioral pricing theory, adaptation-level theory suggests that the internal reference price reflects the adaptation level that depends on previous price experiences (e.g., the recent price paid). In marketing studies, some authors simply refer to 'reference price' instead of 'adaptation level' (e.g.,

Kalynaram & Little, 1994). Next to adaptation-level theory, the assimilation-contrast theory (Sherif, Taub, & Hovland, 1958) support the reference price concept as well. Whereas Helson (1964) refers to an internal level, Sherif, Taub and Hovland (1958) refers to an internal range of acceptable prices: the latitude of acceptance. The assimilation-contrast theory states that individuals evaluate new stimuli using a reference scale that is based on previous experience. Several scholars applied assimilation-contrast theory to pricing, indicating that any price in the region is assimilated and any price outside the zone is contrasted (Monroe, 1971).

In marketing, the effect of reference prices has mostly been studied in a retail setting. In offline retailing, there are a large number of studies analyzing the influence of reference prices in the context of the posted-price scenario, where consumers face a posted price and decide whether to accept this price as well as to purchase the product (Kalwani, Yim, Rinne, & Sugita, 1990; Rajendran & Tellis, 1994; Winer, 1986). The results show that consumers use a comparative price assessment to evaluate the current price of the product. Prices below their reference price are judged as relatively inexpensive whereas prices above their reference price are judged as relatively expensive. Whereas most studies investigated the reference price in the context of consumers being price takers, recently, the reference price concept is also applied in situations in which the consumer is a price maker. For example, Wolk and Spann (2008) investigated the effect of reference prices on consumer bidding behavior in interactive pricing mechanisms used in online retailing (e.g., auctions and name-your-own-price). More specifically, they distinguished between an internal (IRP), an external (ERP) and an advertised (ARP) reference price. The IRP corresponds to the adaptation level, the ERP refers to searches for other prices (i.e., prices at different retailers), and the ARP reflects the suggested price on the website. They also examined both plausible and exaggerated values of ARP and found that an exaggerated ARP increased the bid value among consumers who consider it to be believable. Jensen, Kees, Burton, and Turnipseed (2003) pointed to the fact that the ARP may be more effective in an offline setting compared to an online setting because, in an offline context, it is more difficult to compare prices of the same product at different retailers.

Beside the retail setting, the reference price concept is also applicable to fundraising (e.g., Schibrowsky & Peltier, 1995; De Bruyn & Prokopec, 2009). Asking for donations mostly takes place in the offline context of direct mail. Moreover, in fundraising, in line with the interactive pricing mechanisms (e.g., Wolk & Spann, 2008), donors have more control over

the final price to pay. In direct mail fundraising, charities commonly suggest a specific donation amount in the solicitation. This SDA corresponds to the ARP. When we now apply the reference price concept, with its roots in adaptation-level theory, to a direct mail fundraising setting, potential donors might use their previous donation behavior as the adaptation level, or internal reference, in their donation choice process. Consequently, individuals may compare the SDA with their previous donation behavior. Therefore, a match between the SDA in the direct mail letter and the individual's internal reference price could be more effective than using the same SDA for all individuals. Since every individual may have a different donation history and consequently may have different internal reference levels, we assume in the current study that a tailored pricing strategy, in terms of prices varying over consumers, could be advantageous for fundraising. More specifically, a higher SDA would be more appropriate for individuals who donated more than other donors in the past. Likewise, individuals who donated less than other donors may have a lower adaptation level and may react better if they receive a lower SDA. In practice, however, the SDA is often the same for all possible donors. In addition, as discussed above, we found the same trend for most prior studies investigating SDA. In other words, most of previous studies neglected the fact that donors have diverse internal reference prices which may cause the mixed results.

Only few studies acknowledge differences in internal reference prices by considering a differentiated pricing strategy. A first study that captured differences between groups of individuals was that of Schibrowsky and Peltier (1995). The authors found that, on an aggregated level, the matching of the direct marketer's presentation frame and the potential donor's internal decision frame results in a maximization of total donation levels. More specifically, in the group of high donors, they found that a high asking range increased donation size and that for low donors, a low asking range was more effective. Therefore, sending the same request to all potential donors does not maximize total campaign revenues. The study of Berger and Smith (1997) went one step further by considering historical donation data at the individual level. They tested personalized anchors that were approximately 10 percent or 50 percent higher than the donor's most recent gift. Their results indicated that a 10 percent increase was more efficient than the 50 percent one, generating a higher response rate. The authors showed that a slight increase of the internal reference amount is more appropriate than a major increase. The authors used the most recent gift as a comparison level. We did not find any study examining what type of personalized calculated reference amount leads to the highest revenues. To address this issue, as we discussed above,

it might be relevant to take into account that reference price is increasingly considered as a region rather than a point estimate (Sherif, Taub, & Hovland, 1958). As Kalyanaram and Little (1994) demonstrated the existence of a zone of price acceptability, an SDA should not exceed the donor's zone of acceptable donations. Therefore, based on the historical donation behavior for each donor, we want to explore an individual's zone of acceptable donations more in depth by considering different acceptable SDAs. To our knowledge, this specific issue has never been studied before in a charity context. Moreover, our study wants to approach the open research question that was formulated by Kalyanaram and Winer (1995), looking into what past prices are appropriate for reference pricing. First, as in Berger and Smith (1997), we want to investigate a personalized reference amount reflecting the most recent donation behavior. This is also in line with literature on reference pricing, which suggests that prices encountered on recent occasions have a greater effect on the internal reference price than older prices (Mazumdar, Raj, & Sinha, 2005). In addition, based on Kalyanaram and Little (1994), we want to explore an SDA that considers all previous payments and consequently reflects a donor's regular donation amount. This kind of average SDA may reflect a rather low donation amount that is still located in this zone of acceptance. Finally, we want to explore the upper threshold of the zone of price acceptability by considering a high but still tolerable SDA. To frame the central research question, we work in the context of personalized SDA in direct mail fundraising, considering the individual's zone of acceptance. We will now investigate which past donation amounts are appropriate for reference pricing: the most recent payment, an average of prior payments or the upper threshold of an individual's range. In the following section we will formulate a number of specific hypotheses for this general research question.

Hypotheses. In general, previous studies have shown that differences in SDA may influence the campaign success rate, which is reflected in changes in response rate as well as in donation size. We found mixed results across individual studies, which may be explained by the diverse contexts approached by the authors, and which make comparisons more difficult. In our opinion, two important aspects may cause this inconsistency: the disregard for previous donation behavior and the limited focus on a single donor segment in each study. Moreover, Schibrowsky and Peltier (1995) and Wolk and Spann (2008) found that the influence of reference amounts is likely to differ among segments. We consequently expect that the effect of SDA on donation size and response rate may differ across donor segments leading to the following hypotheses.

H1: The effect of the type of suggested donation amount (SDA) on donation size will depend on the donor segment.

H2: The effect of the type of suggested donation amount (SDA) on response rate will depend on the donor segment.

More explicitly, De Bruyn and Prokopec (2009) found that certain characteristics of individual donors make them more or less sensitive to the influence of SDAs. In particular, infrequent, lapsed, or less generous donors have weaker internal reference points which make them more easily influenced by SDAs. In contrast, frequent, recent, or high givers have stronger internal reference prices indicating that these donors will be less influenced by the donation grid, or a set of suggested amounts (i.e., donation grid: “Please donate: 15€ 30€ 50€ 100€ Other_____”). In line with this, Desmet (1999) also investigated reference pricing by considering a scale of suggested donations rather than one specific donation amount. Taking into account the previous behavior of the donors, he showed that the results depend on the relation between the donation scale and the distribution of previous donations. Interestingly, measured by the recency and frequency of the donor, Desmet (1999) found that the SDA is more important if the donor is less highly involved. Less highly involved donors are more sensitive since they showed greater adaptation of their donation amount to the donation grid than more highly involved individuals. More specifically, Desmet (1999) found that regular donors, who are assumed to be more strongly involved, make less use of scale values. Therefore, we expect that active donors will not be influenced by the SDA, whereas prospects and lapsed donors will.

H3: The type of suggested donation amount (SDA) will have an impact on donation size for prospects or lapsed individuals rather than for active donors.

2.3 SOCIAL COMPARISON

In general, consumers are often influenced by the behavior of others (e.g., Amaldoss & Jain, 2005). Theoretical grounds for this influence can be found in social comparison theory (Festinger, 1954), which indicates that individuals compare themselves to others when there is no objective standard available or when this standard is not considered relevant. In charitable fundraising, objective standards are regularly not accessible. Social norms are closely related to social comparison. Recently, Goldstein, Cialdini and Griskevicius (2008) demonstrated that normative information can be very powerful to influence pro-social behavior. Moreover, these

authors found that normative appeals were most effective when there is a close match to individuals' immediate situational circumstances. Consequently, information about the charitable behavior of similar others may influence a person's donation behavior. In this study, starting from the zone of acceptable donations, we want to investigate social influence as a compliance strategy to induce a person's willingness to respond to a donation request.

Most research examining this issue refers to this phenomenon as conditional cooperation, that is, individuals are more likely to donate when others donate. Research into conditional cooperation mainly focused on experimental lab studies, rather than field studies, trying to explain the underlying reasons for this pro-social behavior. A first explanation offered is that people want to conform to social norms because of self-esteem considerations (Bernheim, 1994). In short, people want to feel good about themselves by conforming. Secondly, individuals may also have general fairness preferences such as those driven by reciprocity (Rabin, 1993). A third explanation proposed is that the cooperativeness of other donors signals the quality of the charity (Vesterlund, 2003). These lab-induced theories have been tested in field experiments in charitable real giving contexts. To our knowledge, the first study testing conditional cooperation in a field experiment was that of Frey and Meier (2004). In a call to pay the compulsory tuition fee, the University of Zurich also asked students to donate to two charitable funds, providing students information on the percentage of other students that had previously donated. The authors found behavioral evidence for conditional cooperation: the response rate increased when people knew that many others donated. Whereas Frey and Meier (2004) used the donation rate of other donors, further studies on conditional cooperation also focus on the size of previous donations. Martin and Randal (2005) examined the content of transparent boxes in the foyer of an art gallery and found a significant influence of social information on donation composition, frequency and value. Specifically, they found that the propensity to donate was higher when transparent boxes contained donations (e.g., 50¢, \$5, or \$50) compared to empty boxes. In addition, the composition of the donations mirrored the composition of the initial contents. Alpizar, Carlsson, and Johansson-Stenman (2008) investigated conformity among visitors in a national park in Costa Rica by providing visitors information about typical previous donations of others (i.e., \$2, \$5 or \$10). These authors found that increasing the reference level decreases the likelihood of giving but increases the amount actually donated. Shang and Croson (2007) examined the influence of social comparison on donations in a fundraising campaign of a public radio station. They focused specifically on participants who had already decided to

donate. They tested different SDAs based on the distribution of donations from the previous year's fund drives (i.e., the 50th, 85th and 90th percentile) and found that new members donated more when the highest donation suggestion was included. In a follow-up study, Croson and Shang (2008) compared the SDA with previous gifts of members and showed that respondents changed their donation in the direction of the SDA. When the SDA was higher than the previous gift, the donation amount increased whereas a lower SDA decreased the gift size.

In our opinion, the common shortcoming of these studies on social comparison is that they typically captured both the reference to another donor and the reference amount in a single condition by referring to a certain donation of another donor versus not referring to a donation at all. Hence, in the control condition there is no mention of a specific amount nor of a reference to another donor. Consequently, it is not clear whether simply asking any SDA and omitting the social aspect would lead to different results. It remains unclear what leads to differences in campaign success rate: the amount of the donation of others, or simply referring to others donating. We want to investigate this issue more in depth by examining the role of each aspect separately. To do so, we include a simple SDA, starting from the donor's zone of acceptable donations, from the fundraiser without a referral to another donor. This approach allows us to examine which is the decisive factor in persuading individuals to donate: the social aspect or the reference amount. In other words, we reduce the social aspect by simply referring to someone else and therefore investigate the effect of two different sources of the recommendation: the fundraiser versus another donor. We want to remark that, as discussed above, regarding the SDA, we only considered acceptable donations in accordance with the individual's past donation behavior. Consequently, we do not consider unbelievable SDA's. Because conditional cooperation is initially considered as a compliance strategy indicating that individuals are more likely to donate when they know that others are contributing, we expect that social comparison as such (i.e., regardless of the amount of the suggested acceptable donation) will only have an influence on the likelihood to respond and thus not on the generosity of the donor. This is addressed in the following hypothesis.

H4: Social comparison will have an impact on response rate rather than on gift size.

Despite evidence of conditional cooperation in previous studies, social influence may vary depending on past donation behavior. In this context, Frey and Meier (2004) introduced an important concept: the heterogeneity in people's donation preferences. They showed that

people with a consistency in giving are less likely to be significantly affected by social comparison. In contrast, people with an inconsistent pattern of giving are possibly more affected by social comparison. These findings may indicate that donors who are more active, and thus less indifferent, will be influenced less by information of other donors' behavior. In psychology, more specifically in the social influence literature, we found that social influence is more likely to occur when the situation is perceived as novel or ambiguous (Crutchfield, 1955; Griskevicius et al., 2006). Hence, other people may not influence the individual's decision when it is obvious for the individual what to do. In charitable fundraising, ambiguity may depend on the familiarity with the charity within the segment of donors. As prospects did not donate before, their experienced ambiguity is expected to be higher than for individuals who did donate to the charity before. Consequently, in a direct mail fundraising setting, we might hypothesize that ambiguity would moderate the impact of social influence on response rate. Both studies (Frey & Meier, 2004; Crutchfield, 1955) indicate that the influence of others might be different across segments. More specifically, we expect that previous donors (i.e., active and lapsed donors) will not be influenced by other donors' behavior, whereas the behavior of donors who never donated before will. This is also in accordance with King (1975), who states that individuals who experience uncertainty have a stronger inclination to seek clarifying information from others. As a result, we formulate the following hypothesis.

H5: Social comparison will have a positive influence on response rate for individuals who never donated to the charity before (i.e., prospects) rather than for individuals who donated to the charity before (i.e., lapsed donors and active donors).

Despite the valuable insights of previous studies on conditional cooperation, most studies have approached a single segment of donors: real prospects or people who donated before. In addition, these investigations mostly focused on donation on the spot (i.e., visibility) or interpersonal contact (i.e., face-to-face or by phone), highlighting a lack of studies investigating this issue in a direct mail setting with neither visibility nor interpersonal contact. Moreover, all of these studies were related to fundraising in a public goods context. To fill this gap, we want to test whether diverse segments of donors react differently to social comparison in direct mail campaigns for 'helping the needy' situations, than in public good situations. Furthermore, the focus of most previous studies was either on the participation rate or on average gift size and did not consider both as separate dependent parameters. That is why we will look both at response rate and average gift size.

3 **METHOD**

3.1 **EXPERIMENTAL DESIGN**

Context. To address our research question and hypotheses, we set up a 3 x 3 x 2 between-subjects design in a real charitable direct mail context. We considered three relevant donor segments (3), in which we investigated the influence of three individual suggested donation amounts (3), in combination with the presence or absence of social comparison (2). The use of a field experiment, instead of a laboratory setting, is an additional contribution of our study to the investigation of consumer behavior and more specifically charitable giving. In our field setting, we have the benefit of implementing a controlled experiment in real fundraising campaigns of a European charitable organization. The charity gave us the opportunity to make variations in the sentence related to the donation request in the appeal letter of a direct mail campaign that was sent to prospects, current donors and lapsed donors. More specifically, the charity provided us with a dump of their database containing all historical transactions, and a list of the donor id's of all individuals that should be contacted in the next campaign. This enabled us to consider the previous donation behavior of each individual separately and the possibility to calculate a personalized donation suggestion in line with adaptation-level theory (Helson, 1964). In our experiment, we considered three factors. The first factor is related to the segment that we want to solicit. This factor cannot be manipulated because it depends on whether and when someone donated to the charity before (i.e., never, recently or a long time ago). The second factor is the type of suggested donation amount containing three levels (i.e., recent, average or maximum gift) and our third factor reflects two levels of social comparison (i.e., absent or present). Consequently, the latter two factors are related to the donation request in the appeal letter and therefore, based on the original persuasive appeal of the organization, we created six versions, each representing a combination of types of suggested donation amount and social comparison. As a result, within each of the three donor segments, the subjects were randomly assigned to receive one of these six versions. We will now describe the three factors more in depth.

Independent measure variables. The first factor, being the type of donor segment, was realized by selecting respondents beforehand and reflected the current stage in their donor lifecycle. Because we also wanted to investigate whether the six versions of donation requests are more or less effective for different donor segments, we examined three groups. The groups were created following a distinction often made by charities, which reflects three types

of direct mail fundraising campaigns along the donor lifecycle. The first type, acquisition campaign, is meant to attract new donors by sending the appeal to people who have not donated to the charity before. The first group in our experiment thus contained prospects who never donated to the proposed charity before. Yet, this group of respondents had a history of charity donations, as the addresses were provided by 15 other European charities in an exchange program. Retention campaigns are a second category in which the charity tries to keep current donors and to upgrade their donation behavior. Hence, our second segment included current donors who donated more than €5 during the last two years. The charity used this rule of thumb for their selection of addresses for retention campaigns. In the third category, charities may try to reactivate donors who had dropped out and who have not donated for extended periods of time. The last group contained donors who lapsed: their last gift occurred two or more years earlier. As a final point, by considering these three donor segments, involvement and consistency in donating is highest for current donors. As discussed in the previous section, individuals who never donated before to the charity in question experience the highest ambiguity and uncertainty.

The second factor was related to a specific type of SDA within each individual's zone of acceptable donations. For every donor, based on their previous donations, we calculated a personalized amount which was asked for in the appeal. We investigated three types. The first type was a person's recent donation amount. Second, we calculated the average gift size by considering all previous donations for each individual. In general, this was the lowest suggested donation amount of all three types. The third type approached the upper threshold of the zone of price acceptability by calculating the highest amount that a donor ever donated. Regarding these personalized reference amounts, we have three important remarks. First, in acquisition campaigns, and consequently for people who never donated to the announced charity before, we used the individual's charitable behavior across 15 other European charities to calculate the reference amounts. For the two other segments, we only considered the donation behavior toward the charity that sent out the campaign. Our second remark is that, for all donors, we increased the obtained reference amount (i.e., the recent, average or maximum reference amount) by 10 percent to simulate a kind of up selling. This approach aimed to increase the donation, since higher SDAs mentioned, lead to higher donations (Croson & Shang, 2008), which is in line with results from Berger and Smith (1997), who indicate that a 10 percent increase is more appropriate than a 50 percent increase. We used rounded numbers in the final donation request because previous studies have shown that this

is more appealing (e.g., Desmet, 2003). Third, subjects with the same type of reference amount could still have a different SDA because the donation history differs for each individual. For example, suppose that two donors are asked for the maximum reference amount and the first donor's maximum donation was €100 and for the second donor this was €200. Then, the SDA for the first donor should be €120 and for the second this is €220.

The third factor concerned the use of social comparison (i.e., absent or present). The absence of social comparison was reflected in a simple donation request formulated as follows: "Please help us by giving €x." In other words, the source of this kind of appeal was the fundraiser itself. In contrast, the presence of social comparison was implemented as follows: "Another donor like you donated €x. You can also help us". In both situations, to calculate the SDA, we used the donation history of the individual whom we wanted to solicit. The only difference was the announced source of the recommended gift. The combination of both factors previously discussed resulted thus in the six versions of the donation appeal. In sum, three independent measures were used to represent the kind of appeal: (a) segment (prospects, current donors, or donors who have lapsed), (b) type of the personalized SDA (average, recent or highest gift) and (c) source of the recommended donation (fundraiser or other donor).

3.2 DATA COLLECTION AND DEPENDENT MEASURE VARIABLES

As we mentioned before, response data were collected via charitable direct mail campaigns. We created six versions of the original campaign. The only difference between the versions was the sentence related to the donation request. In all other aspects, the versions were identical. The final campaign was sent to 57,513 European households in December 2008. Two months later, the charities provided us with the latest dump of their database containing anonymous response data of our experiment. 114 individuals were removed from the initial sample.

To investigate the impact of the appeal on charitable behavior, we analyzed the campaign success rate. To that end, three dependent measures were obtained from the data. The first dependent measure is revenue per appeal. Because our groups were not perfectly balanced, we compared revenue per appeal instead of the aggregated revenues. Campaign revenues are driven by two aspects: the decision to donate and the amount that was donated. As we want to identify whether the type of appeal affects response rate, gift size or both, we consider these two aspects as separate dependent measures. Specifically, for each segment, we examined the effectiveness of the different appeals on participation rate, gift size, and revenue per appeal.

However, depending on the segment, one of these measures may become more or less crucial as the focus of acquisition campaigns is to maximize response rate rather than to obtain a high average donation. For retention purposes, overall revenue is of relevance. Finally, as in acquisition, response rate is also of prime importance in reactivation. As in Reingen (1982), regarding the analysis of the precise gifts as well as the revenue per appeal, a $\log(X + 1)$ transformation was first performed on the data.

4 RESULTS

To test our hypotheses, three three-way Analyses of Variance (ANOVA) were performed on revenue per appeal, average gift size and response rate. Each ANOVA enclosed three factors. The first factor, segment, contained three levels of segment type (prospects vs. current donors vs. lapsed donors). The second factor reflected the three different suggestions of donation amounts (recent gift vs. average donation amount vs. highest gift ever paid). The third factor had two levels: the absence or presence of social comparison. Table 2 gives an overview of the three factors in our experimental design and the descriptive statistics on the three dependent measures.

Table 2: Experimental Design and Descriptive Statistics

segment	social comparison	suggested amount	N	N (responders)	Response rate (%)	Average gift - Log transformation (€)	Revenue per appeal - Log transformation (€)
Acquisition	absent	recent	1978	24	1.21 (0.11)	3.25 (0.64)	0.36 (0.04)
Acquisition	absent	average	1977	27	1.37 (0.12)	2.84 (0.72)	0.34 (0.04)
Acquisition	absent	maximum	1979	21	1.06 (0.1)	3.18 (0.83)	0.34 (0.03)
Acquisition	present	recent	1979	38	1.92 (0.14)	3.39 (0.73)	0.48 (0.07)
Acquisition	present	average	1979	30	1.52 (0.12)	3.3 (0.69)	0.41 (0.05)
Acquisition	present	maximum	1979	29	1.47 (0.12)	2.92 (0.82)	0.36 (0.04)
Retention	absent	recent	7066	801	11.34 (0.32)	3.13 (0.79)	1.03 (0.36)
Retention	absent	average	7044	869	12.34 (0.33)	3.09 (0.83)	1.06 (0.38)
Retention	absent	maximum	7063	804	11.38 (0.32)	3.11 (0.85)	1.03 (0.35)
Retention	present	recent	7030	789	11.22 (0.32)	3.04 (0.84)	1 (0.34)
Retention	present	average	7040	855	12.14 (0.33)	3.12 (0.8)	1.06 (0.38)
Retention	present	maximum	7052	816	11.57 (0.32)	3.1 (0.83)	1.03 (0.36)
Reactivation	absent	recent	539	30	5.57 (0.23)	3.11 (0.71)	0.73 (0.17)
Reactivation	absent	average	539	19	3.53 (0.18)	3.34 (0.67)	0.63 (0.12)
Reactivation	absent	maximum	539	28	5.19 (0.22)	3.37 (0.62)	0.76 (0.17)
Reactivation	present	recent	539	24	4.45 (0.21)	3.25 (0.6)	0.68 (0.14)
Reactivation	present	average	538	16	2.97 (0.17)	3.34 (0.63)	0.58 (0.1)
Reactivation	present	maximum	539	17	3.15 (0.17)	3.63 (0.52)	0.64 (0.11)

Because of the wide range of donation sizes and the unbalance across the segments, we cannot assume that error variances are constant. This may violate the homoscedastic assumptions underlying ordinary least squares. The Levene's test of equality of error variances proved statistically significant ($F_{\text{revenue}}(2, 57396) = 572.58, p < .0001$; $F_{\text{gift size}}(2, 5234) = 9.67, p < .0001$) indicating that heteroscedasticity was associated with the log-transformed model. To correct for this, we applied the weighted least square method using standard deviation as weight (Jia & Rathi, 2008).

For the dependent measure of revenue per appeal, all individuals who received an appeal letter were included in the ANOVA ($N = 57399$). As we discussed above, for each individual, we add 1 to the donation amount (because many individuals did not make a donation) and log transformed this final amount. The model was significant ($F(18, 57381) = 304.96, p < .01$) and the ANOVA showed a main effect of segment type ($F(2, 57381) = 1327.23, p < .01$). A

significant interaction effect between segment type and suggested donation ($F(4, 57381) = 2.76, p < .05$), as well as an interaction effect between segment type and social comparison ($F(2, 57381) = 2.94, p = .05$) were found, indicating that donation requests in terms of SDA as well as social comparison should be adjusted to the segment. In the subsequent analyses we investigated the drivers behind these effects on revenue per appeal. For the dependent measure of gift size, we performed the same analysis as for revenue per appeal. The only difference was that this ANOVA ($F(18, 5219) = 4246.10, p < .01$) was performed only on those people who did respond to the campaign ($N = 5237$). Again, we found a main effect of segment type ($F(2, 5219) = 9.18, p < .01$). In addition, we found a significant interaction effect between segment type and suggested donation level ($F(4, 5219) = 2.71, p < .05$). The first hypothesis stating that the effect of the SDA on donation size depends on the donor segment is thus confirmed. For the dependent measure of response rate, we calculated the response rate of each cell in our $3 \times 3 \times 2$ design ($N = 18$) and assumed that the 3-way interaction⁵ is 0 to get an error term for testing all the main effects and 2-way interactions. Again, this model was significant ($F(14, 4) = 777.84, p < .01$). The results showed a significant main effect of segment type ($F(2, 4) = 2325.79, p < .01$). Second, a significant interaction between segment type and suggested donation ($F(4, 4) = 6.67, p < .05$) confirmed our second hypothesis, indicating that the effect of SDA on response rate depends on the donor segment. Finally, an interaction effect between segment type and the use of social comparison on response rate was found ($F(2, 4) = 7.67, p < .05$). Hence, we demonstrate that social comparison has an impact on response rate rather than on gift size because we found an influence on response rate but not on donation size. Consequently, we showed evidence for our fourth hypothesis.

In general, the main effect of segment type is not surprising because it is well known that revenues are highest for retention campaigns mainly because of a higher response rate, and lowest for acquisition campaigns meant to recruit new donors. In each of the analyses, we found no main effect of SDA, nor of social comparison. However, the interaction effects between segment type and our manipulations regarding SDA and the use of social comparison indicate that the effectiveness of communication messages differs across donor segments. The

⁵ To assure that the 3-way interaction was absent, we used the GLIMMIX procedure in SAS in which we specified that the dependent variable is binary. The results demonstrate the absence of the 3-way interaction ($F(4, 57381) = .42, p > .10$). We calculate the response rate in each cell to obtain a ratio-scaled variable which makes the interpretation easier.

absence of an interaction effect between SDA and social comparison indicates that both aspects are clearly distinct in the context of this study.

In the sections below, we will first provide an in-depth exploration of the interaction effect of segment type and SDA on the three dependent measures. Second, we describe the results of the interaction between segment type and social comparison on revenue per appeal and response rate. It is generally accepted that the success rate of direct mail campaigns has to be considered in accordance with the segment of the campaign. The effectiveness or total revenue of any fundraising campaign mainly relies on both the response rate and the magnitude of the gifts. Sometimes, depending on the type of campaign, one of these elements is to be considered more relevant than the other, as is the case in a reactivation campaign in which maximizing response rate is of vital importance. For that reason, in the next two sections, the results are presented by discussing the effects of reference amount and social comparison on each type of campaign. In each section, we start by reporting the results of SDAs for acquisition campaigns, followed by an assessment for retention campaigns. We end with a discussion on the effects concerning reactivation appeals.

4.1 WHAT AMOUNT IS MOST APPROPRIATE TO RECOMMEND?

Considering our research question related to the type of SDA within the zone of acceptable donations, we found that the optimal donation request differs across the different segments. We will now explore this more in depth.

Acquisition Campaigns. Regarding campaigns targeted at potential new donors, concerning gift size when donation behavior toward other charities is available, we found that the use of a recent request ($M_{\text{recent}} = \text{€}3.32$) was highest compared to asking for the donor's average ($M_{\text{average}} = \text{€}3.07$; $t(110) = 1.86$, $p < .10$) or maximum ($M_{\text{maximum}} = \text{€}3.05$; $t(105) = 1.92$, $p = .05$) amount. We found no significant differences in response rate and revenue per appeal. In other words, the most recent gift to another charity acts as the best inducement to maximize the gift of new donors.

Retention Campaigns. In contrast, for current donors, we found that the average gift behavior acts as the best donation request for maximizing the response rate, as well as the revenue per appeal. The response rate was nearly one percentage point higher when suggesting the average donation compared to the recent ($M_{\text{average}} = 12.24\%$ vs. $M_{\text{recent}} = 11.28\%$; $z = 2.50$, $p < .05$) and maximum ($M_{\text{maximum}} = 11.48\%$; $z = 1.98$, $p < .05$) request type. Based on the revenue

per appeal sent, we also conclude that the average gift is best to suggest in a retention setting. This type of request is more efficient compared to both the recent ($M_{\text{average}} = \text{€}0.38$ vs. $M_{\text{recent}} = \text{€}0.35$; $t(28178) = 2.57$, $p = .01$) and maximum suggestion ($M_{\text{maximum}} = \text{€}0.36$; $t(28197) = 1.89$, $p < .10$). Therefore, our results clearly indicate that the common fundraising strategy of suggesting a recent request lowers both the response rate and revenue per appeal compared to the average suggestion. Finally, for retention campaigns, we found that the recent, average and maximum request lead to equal gift sizes. In other words, regarding donation size, active donors will not be sensitive toward the type of SDA.

Reactivation Campaigns. The results regarding inactive donors showed that for a maximum suggestion, the gift size was higher than the recent request ($M_{\text{maximum}} = \text{€}3.50$ vs. $M_{\text{recent}} = \text{€}3.18$; $t(97) = 2.47$, $p = .01$). Furthermore, with reactivation campaigns where the response rate is of prime importance, using the last gift before lapsing, compared to the average reference amount, increased the response rate from 3.25% to 5.01% ($z = 2.05$, $p < .05$). We did not find a difference between the maximum reference amount and the average amount ($z = 1.14$, $p > .10$). In other words, the last gift of a lapsed donor is most appropriate to win back as many donors as possible. Regarding revenue per appeal, we found no significant differences.

Combining an individual's range of acceptable donations and his/her stage in the donor life cycle has never been studied before, and therefore, extends previous research on reference amounts. Interestingly, the result for reactivation campaigns is in line with results for acquisition but differs from the results for motivating current donors, where the average reference amount is appropriate to increase response rate as well as campaign revenues. As we found that the type of SDA has an impact on donation amount for new and lapsed donors and since this effect was omitted for active contributors (i.e., the group with the highest involvement), our third hypothesis was confirmed. In other words, regarding donation size, active donors who are assumed to be more strongly involved have strong internal reference prices because they are not influenced by the SDA. On the other hand, lower involved individuals (i.e., prospects and lapsed donors) have weak internal reference points because they are sensitive to the SDA. This is in line with prior research (e.g., Desmet, 1999) demonstrating that regular donors have strong reference prices.

4.2 REFERRING TO ANOTHER DONOR?

As we discussed above, we showed the absence of a main effect of social comparison. However, we found a significant interaction between segment type and the use of social comparison on response rate and revenue per appeal, indicating the need for a differentiated approach along the donor segments. Our results demonstrate that referring to other donors is an excellent acquisition strategy, but is possibly harmful when reactivating lapsed donors. Finally, in line with our expectations, social comparison has no effect on the donation behavior of active donors.

Acquisition Campaigns. For acquisition purposes, we found evidence for conditional cooperation since revenue per appeal increased by 43% when referring to others compared to asking the same amount without social comparison ($M_{\text{present}} = \text{€}0.053$ vs. $M_{\text{absent}} = \text{€}0.037$; $t(11869) = 2.17$, $p < .05$). This rise in revenue was driven by a higher response rate. The response rose from 1.21% to 1.63% ($z = 1.93$, $p = .05$). We found no effect on gift size.

Retention Campaigns. In contrast to acquisition campaigns, for retention campaigns, it seems that current donors are quite insensitive to social comparison provided in the appeal, as we did not find any difference of social comparison on response rate ($z = 0.12$, $p > .10$), nor on revenue per appeal, nor on gift size.

Reactivation Campaigns. For reactivation purposes, referral to the behavior of others does not lead to differences in revenue per appeal nor in gift size. However, we did find that referring to another donor lowers participation rate. More specifically, providing social comparison decreased the response rate from 4.76% to 3.53% ($z = 1.76$, $p < .10$). Therefore, we showed preliminary evidence for ‘reversed’ conditional cooperation since social comparison seems to inhibit an additional impulse for lapsed donors to reactivate. This interesting result was somewhat different from what we had expected and therefore our results provide support for a negative outcome when using social comparison.

In sum, as prospects experience the highest ambiguity and uncertainty compared to the other segments, they will rely more on the behavior of others. This superior performance of referring to others in campaigns targeted at people who never donated before supports our fifth hypothesis. As expected, for active donors, it seems that social comparison does not matter. This is in line with previous studies showing that social influence is most likely in novel, ambiguous, or uncertain situations (e.g. Crutchfield, 1955; Griskevicius et al., 2006).

5 DISCUSSION

This study extends previous research on the effectiveness of fundraising appeals by demonstrating a need for differentiation across donor segments and more specifically, in terms of suggested donation amount (SDA) and of social comparison. An important added value of our study is the benefit of measuring real donation behavior instead of intentions, by investigating charitable behavior outside the laboratory. Specifically, we tested whether adding a comparison to other donors has an effect, combined with the effect of a personalized SDA, on three segments of donors: prospects, current donors and donors who have lapsed. Whereas most previous studies only considered one of these donor segments, we captured the whole donor lifecycle. The results showed that for campaign success rate, a personalized SDA should be chosen carefully for each type of donor in terms of his/her donation lifecycle stage. By considering adaptation-level theory (Helson, 1964) and assimilation-contrast theory (Sherif, Taub, & Hovland, 1958), we inspected the latitude of individuals' range of acceptable donations. Taking into account previous donation behavior, we explored three types of personalized donation amounts and found that the appropriate level, in terms of response rate as well as donation size, depends on the donor segment. As in Schibrowsky and Peltier (1995) and as in Wolk and Spann (2008), this was in line with our expectations. More specifically, for acquisition and reactivation purposes, the most recent gift is most appropriate. In other words, for potential new donors, the size of the most recent gift to another charity (when this is known) acts as the best anchor to recruit new donors. Regarding reactivation campaigns, the most recent donation before lapsing is optimal to win back donors. This issue has never been studied before and therefore extends previous academic research on reference pricing. In contrast, regarding active donors, suggesting the most recent gift may lead to lowered returns. The average donation is, however, most appropriate to increase response rate. This novel finding extends previous research since an average SDA has not been considered to date. Making a link to past donations, previous studies (Schibrowsky & Peltier, 1995) and professional fundraisers used the most recent gift as a reference amount for this segment. Our research demonstrates that this common approach could actually be counterproductive. In addition, we have shown that this more highly involved segment has a stronger internal reference amount than less highly involved donors because it was only for active donors that we found no effect of suggested donation level on gift size. In sum, our study highlights an essential benefit of tailoring the type of personalized amount.

In contrast to previous research on social information, our study clearly distinguished the SDA from social comparison. Starting from social comparison theory (Festinger, 1954), a second issue we investigated was referring to other donors in the donation request. By considering social comparison as a compliance strategy, and in line with our hypothesis, social comparison did affect response rate, but not on donation size. However, the impact of social comparison varied across different donor segments. More specifically, we have demonstrated that social comparison is only an effective strategy for new donors, which was in line with our expectation that prospects experience more ambiguity and uncertainty compared to people who have donated before. We find that current donors are not influenced by the donations of other donors and revenues stay the same whether social comparison is added or not. Finally, our result shows similarities with the study of Frey and Meier (2004). In our experiment, lapsed donors are people who did not respond to direct mail advertisements of the charity for more than two years. Therefore, we could state that these subjects did not change their behavior in the past period and because of this behavioral stability they are not positively affected by social comparison.

In this study, we found no interaction between SDA and social comparison. We only investigated SDAs in the donor's zone of acceptable donations. However, we want to remark that in other circumstances both dimensions may still be dependent. This might be the case when the SDA becomes unbelievable. For example, suppose that the SDA reflects the maximum donation amount increased by 50%. In this case, it can become unbelievable that someone else donated this large amount. Moreover, there are no clear theoretical reasons for the independence of both dimensions. However, the reason why we separated both dimensions is that previous studies on conditional cooperation typically investigated SDA and social influence in one condition. Consequently, it was not obvious whether other results would have been obtained by just mentioning the amount. Therefore, an important contribution of our study is that we demonstrated the relevance of both aspects separately.

6 MANAGERIAL IMPLICATIONS

The findings offer practical implications for fundraisers aiming to improve their direct mail campaigns. We find that an optimal appeal, in terms of SDA and social comparison, depends on the donor lifecycle and that slight changes in the appeal can lead to a considerable increase in revenues. Our results clearly show that current rules of thumb may be seriously flawed and that there is room for improvement. In general, we have demonstrated that database marketing

can be an important tool in direct mail fundraising campaigns. Based on previous donation behavior that is stored in the database of the charity, fundraisers can extract an appropriate amount to suggest, tailored to the individual donor. As for active donors, referring to their most recent gift may lead to suboptimal results. A better strategy compared to this traditional approach is suggesting the donor's average donation. Suggesting the donor's most recent gift before lapsing is appropriate for recapturing lapsed donors. Furthermore, adding one characteristic to donor records when hiring addresses, in particular the most recent donation, could be valuable to persuade people to donate.

The findings regarding referring to other donors also indicate a need for differentiation in the communication strategy along the donor lifecycle. These results are in line with previous studies on social comparison and demonstrate that referring to other donors is an effective persuasive strategy in fundraising appeals targeted at prospects. We have demonstrated that adding one simple sentence to the appeal increased revenues by 43%. However, this effect was absent for the segment of current donors. Here, social comparison does not appear to play a role. Moreover, for reactivation campaigns, we have found that such social comparison may prevent donors from contributing and therefore may have negative consequences. In sum, these findings clearly show the benefits of using database information to tailor communication approaches.

7 LIMITATIONS AND FUTURE RESEARCH

Although this study provides important insights in optimizing a donation request in direct mail fundraising, several limitations can be put forward. In our opinion, these limitations suggest opportunities for future research. First, we have restricted this study to direct mail. It would be interesting to investigate whether our findings hold for fundraising campaigns that use other channels like fundraising online, by phone or face-to-face. The second concern is that our findings should be evaluated for other contexts within and beyond fundraising. It might be of interest to investigate whether our results hold for other populations and for appeals for different charitable purposes such as arts, health, education, poverty and the environment. Moreover, our findings could be used as a starting point for further research into online interactive pricing mechanisms in which consumers have more control over the pricing process and the final price to pay (Chandran & Morwitz, 2005). Third, it is also important to refine the personalized donation amount by taking the zone of acceptable donations into account. In our study we have increased the reference amount by 10%. Other reference

amounts and other increases should be analyzed to further optimize this issue. Finally, content factors in the appeal different from the ones researched here may affect campaign success rates as well. As we have shown that the three donor segments react differently to both reference prices and social comparison, future research on these kinds of appeals should acknowledge the relevance of segment-specific strategies.

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**CHAPTER 3 : THE ROLE OF SEED MONEY
AND THRESHOLD SIZE IN OPTIMIZING
FUNDRAISING CAMPAIGNS: PAST
BEHAVIOR MATTERS!**

CHAPTER III:

**THE ROLE OF SEED MONEY AND THRESHOLD SIZE IN
OPTIMIZING FUNDRAISING CAMPAIGNS: PAST BEHAVIOR
MATTERS!**

ABSTRACT

Fundraising appeals often announce that some funds have already been raised in order to reach a certain threshold. This article reports results from a field experiment examining the role of seed money (i.e., no, 50%, and 67%) in combination with threshold size (i.e., low versus high) in fundraising appeals across different targets (i.e., prospects, less loyal contributors, and most loyal contributors). Based on a 2x3x3 between-subjects design we investigate charitable behavior of 25,617 households. Findings reveal a novel qualification of using seed contributions as well as the necessity of a communication differentiation by considering past behavior. We show that seed money works well if the threshold is high but with a low threshold it could have a baleful influence. More specifically, in campaigns targeted at prospects and less loyal contributors, the announcement of seed money increases donations regardless of the threshold level. However, in campaigns targeted at loyal contributors, seed money is an effective strategy only when the threshold is rather high.

1 INTRODUCTION

Over the last years, professional fundraisers have utilized a spectrum of possible strategies in order to optimize their direct mail campaigns. These strategies are mainly focused on the optimization of the target selection (e.g., Malthouse and Derenthal 2008) as well as the solicitation letter (e.g., Berger and Smith 1997). Regarding this latter strategy, an important aspect is related to the announced amount in the donation request. Recently, academic literature gives more and more attention to a broad range of techniques that focuses on the announced amount such as the use of rebates (e.g., Eckel and Grossman 2003), refunds (e.g., List and Lucking-Reiley 2002), reciprocity (e.g., Croson, Fatas, and Neugebauer 2005), matching (e.g., Rondeau and List 2008), conditional cooperation (e.g., Frey and Meier 2004), identity congruency (e.g., Shang, Reed, and Croson 2008), social information (e.g., Reingen 1982; Croson and Shang 2008) and seed money (e.g., List and Lucking-Reiley 2002). Charities often use this last strategy by showing that some funds have already been raised in order to reach a certain threshold to realize the benefaction. Hence, in practice, this strategy is since long the rule of thumb but it has only been recently picked up by few studies. Therefore, the focus of this article restricts itself to the use of seed money in fundraising appeals in order to provide more extensive insight into this strategy.

Seed money, for example in the form of a challenge gift from leadership givers, is an unconditional commitment by a donor, or set of donors, to provide a given sum of money to the cause (Rondeau and List 2008). In this kind of fundraising appeal, the seed money is announced in combination with a certain threshold that has to be gathered. Consequently, this technique mainly consists of two components: the level or percentage of seed money and the size of the threshold. Whereas previous studies investigated the role of seed money by considering one threshold (e.g., List and Lucking-Reiley 2002; Rondeau and List 2008), we conducted a first study that incorporates different sizes of the threshold in combination with different levels of seed money. In addition, various authors suggest that the effectiveness of direct mail campaigns may differ regarding the loyalty of the customer (e.g., Rust and Verhoef 2005). Previous studies on seed money examined this strategy in either a cold list of prospects (List and Lucking-Reiley 2002) or a warm list of previous contributors (Rondeau and List 2008). Moreover, we did not find a study that split up between most and less loyal contributors. Because the impact of seed money across different donor segments has never been studied before, we included different groups (i.e., prospects, less loyal contributors, and most loyal contributors) in our study based on their past donation behavior.

Additionally, a lot of studies on charitable giving are based on laboratory experiments investigating intentions to contribute. However, recently, some academics (e.g., List 2008) stressed the growing importance of field experiments because of the possible discrepancy between the laboratory setting and the field situation. This paper therefore presents results of a large-scale field experiment investigating charitable behavior of 25,617 households. In our setting, we have the added benefit of implementing this controlled experiment in a real fundraising campaign of two charities. The purpose of the first direct mail campaign was to raise funds for building a book and toy library for a children's home. The second campaign was meant to raise funds to accomplish a humanitarian mission in Africa. Both the building of the library and the humanitarian mission could only be accomplished when a required threshold had been achieved. Based on each of the original campaigns, we created several versions, each representing an experimental manipulation.

The objective of this study is threefold. Starting from two recent studies on seed contributions, we compare the previously identified optimal levels of seed money. We include 67% as in the study of List and Lucking-Reiley (2002) and 50% as in the field experiment of Rondeau and List (2008). We also incorporate a control treatment with no seed money. Hence, one contribution of this paper is to investigate whether both former levels of seed money are equally successful. In this respect we can report that both levels are indeed equally effective. The second objective is to examine the role of the magnitude of the threshold in combination with seed money. In other words, is there a difference in contributions when working with a relatively low versus relatively high threshold? We answer this question by including a factor with a relatively low (i.e., €3,900) or high threshold level (i.e., €11,900). Our empirical results show that both levels result in similar revenues except for appeals targeted at the best donors. Finally, the third aim of this study is to explore whether the announcement of seed money is equally successful when soliciting from cold list of prospects versus a warm list of less loyal contributors versus a warm list of most loyal contributors. In other words, is there a need for differentiation in the communication strategy in accordance with the type of the donor segment when working with seed money? The answer to this question is a definite 'yes', because we observe a detrimental effect of using seed money in campaigns with a relatively low threshold toward the best contributors. Our results largely accord with those reported by List and Lucking-Reiley (2002) and Rondeau and List (2008) except for one important novel finding: the identification of an interaction effect between the use of seed money and the level of the threshold in campaigns toward the best donors.

The remainder of this paper is organized as follows. The subsequent section describes the theoretical background of our study in combination with the formulation of the hypothesis and research questions. This is followed by presenting the design of our field experiment. Next, the corresponding results are summarized and finally, we conclude with implications for further research and practice.

2 CONCEPTUAL BACKGROUND AND FORMULATION OF HYPOTHESIS AND RESEARCH QUESTIONS

2.1 SEED MONEY AND THRESHOLD LEVEL

Andreoni's theory of charitable fundraising (1998) predicts that publicly announced seed money will increase charitable donations from a Nash equilibrium with zero charitable giving to a positive equilibrium level G^* that is greater than or equal to the level of the threshold. More specifically, in the absence of seed money there exists a Nash equilibrium with zero-contribution. This zero charitable giving can be eliminated by initial commitments of seed money, which lower the residual amount needed to be raised during the fundraising campaign. This theory points to a discretely jump from zero charitable funds to an amount greater than or equal to the threshold level. Consequently, in his theory, seed money is used to eliminate the zero-contribution equilibrium. However, recently, the theory of signaling (Vesterlund 2003; Andreoni 2006) discusses a different effect of seed money by proposing the announcement of seed money as a credibility mechanism rather than an elimination device. This alternative theory for an increase in contributions states that seed contributions signal the quality and value of the charity and reduces uncertainty by potential donors. Notwithstanding the fact that both theories originates from different mechanisms (elimination device versus credibility device) both theories predict that the announcement of seed money leads to an increase in contributions. Therefore, we formulate the following hypothesis in order to test their common prediction.

H1: Appeals with the announcement of a seed contribution yields higher revenues in comparison with the absence of a seed contribution in fundraising direct mail campaigns.

Later on, using Andreoni's theory (1998) as a starting point, List and Lucking-Reiley (2002) were the first authors who evaluated this theoretical model by providing field experimental evidence. These authors tested the use of three different levels of seed money (i.e., 10%, 33%,

and 67%) in the context of threshold public goods (i.e., a university capital campaign) targeted at a cold list of prospects where \$3,000 had to be raised for a computer. Based on Andreoni's theory (1998), the authors expected that the revenues should jump from equilibrium of zero to equilibrium of at least the threshold level. However, they found a continuous increase along the level of seed money. This continuous raise in gift size was unexpected according to Andreoni's theory. However, Andreoni's theory includes the simplifying assumption of complete information assuming that people have complete information about each other's utility functions and thus can predict other's gift sizes with certainty. Therefore, List and Lucking-Reiley (2002) suggested a potential improvement of Andreoni's theory (1998) by introducing incomplete information in order to explain this continuous increase. List and Lucking-Reiley refers to the fact that in reality, donors may have uncertain ideas of what other donors are giving so donors may play an incomplete-information game. The results of their study indicated that increasing seed money yields more response as well as higher average contributions. Moreover, they found that the 67% of seed money outperformed the other levels. List and Lucking-Reiley (2002) also referred to the study of Vesterlund (2003) as an alternative theory for why seed contributions should raise the funds. This theory of signaling (Vesterlund, 1999) indicates that donors might be uncertain about the quality of the charity and that seed contributions may signal the quality of the charity.

A second field experiment was that of Rondeau and List (2008) who compared the effect of presence and absence of seed money in a real charitable giving campaign. They manipulated a solicitation letter to a relatively warm list of contributors (i.e., Sierra Club supporters) for a campaign in an effort to expand their K-12 environmental education program. Their challenge treatment contained 50% seed money, the total amount required was set at \$5,000 and the leadership gift was thus \$2,500. In the high and low control treatments, the announced thresholds were respectively \$5,000 and \$2,500. The authors proved evidence of the superior performance of seed contributions for the reason that the challenge treatment outperformed both control conditions. Based on the two most favorable levels in previous field experiments, we formulate our first research question as follows:

RQ1: Which of both optimal levels in previous studies leads to the highest total funds raised: 50% or 67%?

However, these previous studies only investigated the seed contribution(s) in combination with one threshold size. We want to address this shortcoming by examining different seed proportions with different threshold levels in order to determine which element is crucial: the seed proportion, the threshold size or both? Therefore, we address the following research question.

RQ2: What is the role of seed money in combination with the threshold size in optimizing charity appeals?

2.2 PAST BEHAVIOR

Regarding the list of addresses, charities often distinguish between a cold and warm list. The first type is used in case of an acquisition campaign and is meant to attract new contributors by sending the solicitation to people who have not contributed to the charity before. These addresses are rented or are obtained by exchange with other charities. In general, the focus of acquisition campaigns is to acquire new donors. Therefore, the main aim is to maximize the response rate rather than to obtain a high average contribution⁶. In contrast, a warm list is mostly used for retention campaigns in which the charity tries to preserve the current contributors and to upgrade their donation behavior. Various authors suggest that different types of interventions can have a different impact across customers, depending on their customer characteristics (e.g., De Wulf, Odekerken-Schröder, and Iacobucci 2001). Whereas previous studies on seed money examined the role of seed money when soliciting from either a cold list of prospects (List and Lucking-Reiley 2002) or a warm list of past contributors (Rondeau and List 2008), we want to investigate differences across both groups in one study.

Moreover, Rust and Verhoef (2005) identified moderating effects of past behavior on two types of direct marketing interventions. They explored past behavior by examining recency, frequency, monetary value, and length of relationship of customers and showed that the effectiveness of the direct mail intervention differed across the more loyal and less loyal clients. For that reason, we do not only distinguish between prospects (i.e., cold list) and past contributors (i.e., warm list) but we also want to split up the group of past contributors. More specifically, we want to separate the highly loyal donors from the less loyal ones. Consequently, we will investigate the following segments: prospects, less loyal active donors and highly loyal active donors. Therefore, we define our third research question as follows:

⁶ Obviously, maximizing both response rate as well as gift size is desired.

RQ3: Does the use of seed money in combination with the threshold size have a different impact across donor segments (in terms of their past behavior) in fundraising campaigns?

3 DESIGN OF THE EXPERIMENT

This controlled field experiment was conducted in December 2008 during a mailing campaign of two charities with a total mailing depth of 25,617 households. The main purpose of this study was to investigate the role of threshold size and seed money across different donor segments. For that reason, we set up a randomized 2 x 3 x 3 between-subjects design. The first factor in our design manipulates the level of the threshold (i.e., low versus high) and the second factor manipulates the percentage of seed money (i.e., 0%, 50% or 67%). Based on previous research, we expected differences between donors depending on their past behavior. Therefore, the third factor in the design is related to the donor segment based on previous behavior⁷. In accordance with List and Lucking-Reiley (2002), the first group consists of prospects or people who never donated before (i.e., the cold list based on purchase of names and addresses). In line with Rondeau and List (2008), we also considered existing contributors. Therefore, the second group contains current donors with a lower loyalty score, and the third group is related to existing donors with a higher loyalty score. As in Rust and Verhoef (2005), past behavioral loyalty was based on the traditional recency, frequency, monetary value, and length of relationship-variables. More specifically, in order to define these two groups of current donors, we use the following behavioral attributes:

1. Number of days between the last gift and the drop date of the campaign
2. Frequency of donations during the past
3. Cumulative amount of donations during the past
4. Number of days since the first donation

We incorporate these four characteristics into one summarizing factor score. For this, higher scores reflect a greater behavioral loyalty, which is indicated by shorter time since last donation, higher number of donations, larger cumulative amount of gifts, and longer relationship duration. Based on a median split, we assigned the contributors in the warm list to

⁷ We want to remark that these three segments does not correspond to the three segments in the previous study. Because of practical reasons, the current study did not investigated lapsed donors. In line with the previous chapter, we also investigated active donors. However, the difference is that, in this study, we split the active donors into a high versus low loyal segment.

one of the following two groups: less loyal and highly loyal segment. Table 3 shows the number of solicitations sent per group.

Table 3: Experimental design and the number of solicitations

	Cold list		Warm list: less loyal contributors		Warm list: most loyal contributors	
	Low threshold	High threshold	Low threshold	High threshold	Low threshold	High threshold
No seed	1824	1838	1221	1286	1217	1153
50% seed	1830	1848	1187	1259	1246	1183
67% seed	1831	1816	1212	1251	1225	1190

We designed our solicitation as a threshold that has to be reached without money-back guarantee⁸. The solicitation letter specified that the proposed project would have to be cancelled if some minimum threshold of contributions could not be met. Based on the original campaign, we created six versions, each representing another combination of the level of seed money and the threshold size. Table 4 gives an overview of these six versions:

Table 4: Overview of the six versions

Version	Description	Threshold Size	Seed	Residual money required to reach to threshold
1	Low-no seed	€3900	€0	€3900
2	Low-50	€3900	€1900	€2000
3	Low-67	€3900	€2600	€1300
4	High-no seed	€11900	€0	€11900
5	High-50	€11900	€5900	€6000
6	High-67	€11900	€8000	€3900

We manipulated the size of this threshold by using a relatively low or high threshold. The low threshold of €3,900 was approximately based on amounts used in previous research (Rondeau and List 2008). We used €11,900 as a high threshold. In addition, we implemented three levels of seed money: absence of seed money, 50% and 67% of the money required to reach

⁸ This is in contrast with previous research on seed money (e.g., Rondeau and List 2008). The charities of our experiment preferred not to work with a money-back guarantee in these campaigns.

the goal. These seed proportions were again based on previous research (List and Lucking-Reiley 2002; Rondeau and List 2008). The residual money requested was obtained from subtracting the seed from the threshold. As presented in Table 4, we decided to use round numbers like €3,900, €2,000 €1,300 in the low threshold and for €11,900, €6,000 and €3,900 in the high threshold. Remarkably, we asked for the same residual funds, that is €3900, in the first and last version. The only difference was the use of seed money in the last version.

The six treatment groups were:

1. The ‘low control’ group, in which the full amount of €3,900 has to be raised.
2. The ‘low 50% seed’, where €3,900 has to be raised, but where the received gifts until now equals €1,900 as a challenge gift. Consequently, the amount of money required of the solicited individuals was €2,000.
3. The ‘low 67% seed’, where the announced cost of the good was €3,900 and the challenge gift was set to €2,600. Therefore, the remainder was €1,300.
4. The ‘high control’ group, in which the full amount of €11,900 has to be raised.
5. The ‘high 50% seed’, with the announced cost of €11,900, but where the received gifts until now equals €5,900 as a challenge gift. Consequently, the amount of money required of the solicited individuals was €6,000.
6. The ‘high 67% seed’, where the announced cost of the good was €11,900 and the challenge gift was set to €8,000. Therefore, the remainder was €3,900.

The text of the letter was completely identical across the treatments, except for the manipulations according to the experimental design. The text hereunder illustrates the difference across the versions.

Honestly, our library of books and games urgently needs to be renovated and expanded. It would be marvelous if we could accomplish this educative project together with you in the first half of 2009. If we could raise <THRESHOLD> euro, we could realize this project and announce this to Hanne and all of her little friends by Christmas. Without your support however, we will not be able to make this happen. <IF SEED>0> The good news is, we already have <SEED> euro. Would you be willing to help us collect the remaining < THRESHOLD -SEED> euro so we can offer Hanne and all of her little friends an educational library with reading books and board games with your compliments? <IF SEED=0> Would you be willing to help us collect this sum of money so we can offer Hanne and all of her little friends an educational library with reading books and board games with your compliments?

4 **RESULTS**

Initially, to have a first impression, we investigated a 3-way Analysis of Variance (ANOVA) on revenue per appeal. The first factor, segment, contained three levels of segment type (prospects vs. less involved previous donors vs. highly involved previous donors). The second factor reflected the three different manipulations of seed money (absent vs. 50% vs. 67%). The third factor had two levels: low or high threshold. This analysis showed a significant 3-way interaction ($F(2, 25605) = 5.12, p < .01$). Consequently, for simplicity reasons, we discuss the most effective combination of threshold level and seed money by separate analyses for each specific segment. Moreover, the results are presented by discussing the effects of seed money and level of the threshold on each of the dependent measures. The effectiveness, or total revenue, of a fundraising campaign mainly relies on both the response rate and the average gift size. Sometimes, depending on the type of the campaign, one of these elements is to be considered more relevant than the other, as is the case in an acquisition campaign where the maximization of the response rate is of primordial importance. Taking this latter fact into account, we start with reporting the factors affecting the response rate, followed by an assessment of the size of the gift. We finish with a general discussion on the effects on overall revenue. In each of those parts, we compare the different segments: prospects, donors with a low and donors with a high loyalty scores in terms of past behavior. As in Reingen (1982), regarding the analysis of the precise gifts, a $\log(X + 1)$ transformation was first performed on the data.

4.1 PARTICIPATION RATE

Table 5: Summary results of response rate for all treatments

	Cold list		Warm list: less loyal contributors		Warm list: most loyal contributors	
	Low threshold	High threshold	Low threshold	High threshold	Low threshold	High threshold
No seed	0,88%	0,98%	5.24%	6.30%	16,84%	14.74%
50% seed	1,04%	1.41%	6.91%	6.67%	14.93%	17.08%
67% seed	1,20%	1.65%	6.52%	7.19%	15.67%	16.64%

Table 5 summarizes the response rates per group per version. For the dependent measure of response rate, we used the GLIMMIX⁹ procedure in SAS in which we specified that the dependent variable is binary. First, looking at the results of people in the cold list, we investigated the use of seed money (absent vs. present) and threshold size (low vs. high) as independent measures. This analysis revealed a main effect of using seed money ($F(1, 10983) = 3.00, p = .083$) but no threshold effect ($F(1, 10983) = 1.12, p = .290$) nor an interaction effect between seed money and threshold size ($F(1, 10983) = 0.26, p = .612$). More specifically, the announcement of seed money has a positive influence on the participation rate. The response increases from 0.93% to 1.32% just by adding seed money to the campaign ($t(8551) = -1.91, p = .056$)¹⁰. If we take a closer look at the individual levels of seed money we find that as we increase the seed money from zero to 67% of the threshold, the number of received donations also increases with 54% ($t(6990) = -1.97, p = .049$). These results are in agreement with those reported by List and Lucking-Reiley (2002) and Rondeau and List (2008) who also found an increase in response rate by using seed money. Moreover, we can conclude that the proposed optimal level in both studies, respectively 50% and 67%, is equally effective ($t(7272) = -0.76, p = .449$). In analogy with the study of Rondeau and List (2008), we also did the novel experimental comparison between the low threshold control treatment and the high threshold 67% seed condition where the remaining requested amount remains constant¹¹. The number of contributors just about doubles when asking the same amount, merely by the announcement of seed money ($t(3325) = -2.09, p = .037$), this clearly demonstrates the vital importance of seed money in acquisition campaigns.

When we now consider the behaviorally less loyal donors of the warm list, we found the same pattern as in the cold list with a main effect of seed money ($F(1, 7412) = 3.14, p = .076$) on participation rate but no threshold effect ($F(1, 7412) = 1.24, p = .265$) nor an interaction effect ($F(1, 7412) = 0.60, p = .437$). More specifically, announcing seed contributions increases the response from 5.78% to 6.82% ($t(5402) = -1.77, p = .077$). In addition, levels 50% and 67% are equally effective ($t(4907) = -0.10, p = .917$). The difference between both treatments with the same amount requested remained significant ($t(2433) = -2.01, p = .044$), indicating the importance of seed money for customers in this segment. These results are in accordance with

⁹ Because of the significance of the 3-way interaction, we cannot apply the same strategy as in the first chapter concerning the response rate.

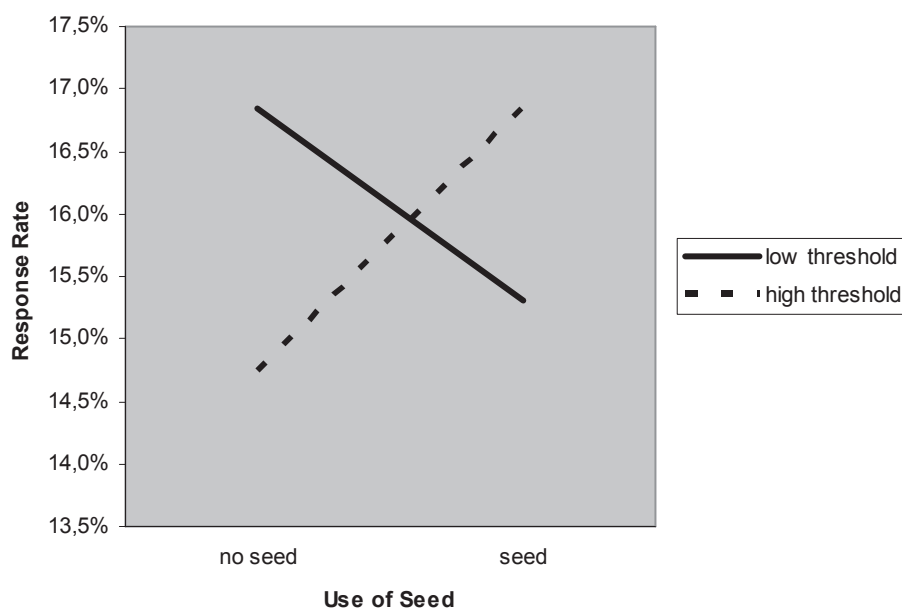
¹⁰ We obtain these percentages by aggregating the two levels of seed money into one category.

¹¹ Although the same effect occurred, the amount required in Rondeau and List (2008) was \$2,500. In our study, the amount was set to €3,900 (almost \$5,000).

the results of the cold list and in line with previous work by List and Lucking-Reiley (2002) and Rondeau and List (2008).

The third segment we analyzed on ground of participation rate contains the best contributors of the organization. We neither found a main effect of seed money ($F(1, 7210) = 0.10, p = .748$) nor a main effect of the size of the threshold ($F(1, 7210) = 0.10, p = .757$). Interestingly, this analysis showed a significant interaction effect between the use of seed money and size of the threshold ($F(1, 7210) = 3.97, p = .047$). This finding differed from both our results regarding the other segments and previous research, reviewed earlier in this article. However, we want to remark that previous studies reached response rates much lower (i.e., below 5%) than we obtained in our loyal segment (i.e., around 15%) which suggests that this type of loyal segment has never been studied before. Figure 1 shows the interaction between size of the threshold and the use of seed money. As can be seen in the graph, using seed money is not always the best strategy because of the moderating effect of the threshold size. When the threshold is a relatively low amount, it is ineffective to announce seed contributions in the fundraising appeal. On the other hand, seed money remains a good technique when the threshold is rather high. This means that the residual money required should be high enough in appeals toward the best donors. Regarding the precise percentage of seed money, we did not find a difference between 50% and 67% ($t(4842) = -0.17, p = .868$) indicating that both levels are equally effective.

Figure 1: Most loyal donors: interaction between threshold size and use of seed money



4.2 SIZE OF THE GIFT

Table 6: Summary results of size of the gifts for all treatments

	Cold list		Warm list: less loyal contributors		Warm list: most loyal contributors	
	Low threshold	High threshold	Low threshold	High threshold	Low threshold	High threshold
No seed	€27.75	€26.39	€31.70	€32.86	€38.84	€35.24
50% seed	€34.42	€28.08	€34.79	€30.80	€33.85	€37.98
67% seed	€25.05	€30.60	€34.93	€29.23	€36.47	€35.77

Results with regard to the average gift are presented in Table 6. The analysis of the size of the individual contributions revealed that neither seed money nor the magnitude of the threshold influenced the amount of the individual contributions. This result holds for all segments of the field experiment. This finding is in contrast with the results of List and Lucking-Reiley (2002) who indicated that the average gift size rises when seed money increases¹². However, our results are in accordance with those reported by Rondeau and List (2008). They did not find a significant difference in individual gift size between the challenge treatment and the control group with the same threshold. But, in contrast with these authors, we did not find a difference in gift size between challenge treatment and the control group where the same residual amount was requested.

4.3 TOTAL RAISED FUNDS

Table 7: Summary results of the total raised funds for all treatments

	Cold list		Warm list: less loyal contributors		Warm list: most loyal contributors	
	Low threshold	High threshold	Low threshold	High threshold	Low threshold	High threshold
No seed	€444.00	€475.00	€2,028.50	€2,661.30	€7,962.70	€5,990.00
50% seed	€654.00	€730.00	€2,853.00	€2,587.50	€6,296.00	€7,672.00
67% seed	€551.00	€918.00	€2,759.50	€2,631.00	€7,001.29	€7,083.39

¹² Although we want to remark that there was no treatment without seed money in the study of List and Lucking-Reiley (2002).

As shown in Table 7, the announcement of seed contributions results in higher overall contributions by the cold list segment. As was the case in the study of Rondeau and List (2008), this influence of seed money on total revenue is driven by an increase in response rate when announcing seed money for the same threshold. The same conclusion holds for sending a campaign to the less loyal contributors. Regarding the best contributors of the charity, there is again a significant interaction effect when analyzing the total revenue ($F(1, 7213) = 5.20, p = .023$). Consequently, the revenue is also driven by the response rate rather than by the size of the gift. Moreover, this interaction effect determines the overall revenue due to the lack of a main effect of seed money and the size of the threshold. This means that in order to optimize a campaign targeted at the most loyal contributors, the use of seed money depends on the size of the threshold. We find it remarkable that, in case of a low threshold, when seed money is used, there are fewer funds raised than there was when we omit seed money. This result clearly indicates that announcing seed money is not always the best technique and can as such lead to missed funds when soliciting from the best donors. This also points out that the required amount has to be large enough to signal the true need toward the best donors.

The model of multiple-goal pursuit proposed by Louro, Pieters and Zeelenberg (2007) provides a valuable explanation for this effect. Helping others by donating money on a regular basis to the charity reflects a goal of individuals with high loyalty toward the charity. However, these donors might simultaneously pursue multiple goals in their everyday life and therefore selectively allocate effort between multiple goals over time. Mentioning a threshold in the solicitation letter is the focal goal and the presence or absence of seed contributions indicates whether or not the goal is progressing, respectively resulting in positive or negative emotions. The residual money needed to reach the goal reflects whether goal attainment is near. This residual money is lowest with a low threshold in combination with seed money indicating that the goal is very close. This high success expectancy leads to a decreased effort toward the focal goal and increased effort toward competing goals. In contrast, in case of a high threshold with seed money, the goal is still remote but the moderate success expectancy results in an increased effort in the focal goal by diverting resources from other goal pursuits. However, when seed contributions are omitted, negative emotions lead to decreased effort toward the focal goal when this goal is still remote (i.e., high threshold and highest residual money) because of low success expectancy. According to Louro et al. (2007), these negative emotions prompt increased effort toward the focal goal when the goal is near (i.e., low threshold) because of moderate success expectancy. In summary, the individuals' expectancy

of success is important because effort to the focal goal is highest for intermediate levels of success expectancy and lowest for either low or high levels. This explanation is also consistent with Atkinson's (1957) motivation theory and only holds for loyal contributors who proved that the charity is important to them reflecting a personal goal. People who never contributed before or people who are less loyal should be more affected by cues like credibility mechanisms in order to reduce their uncertainty. For these segments, the theory of signaling (Vesterlund 2003; Andreoni 2006) explains the positive influence of announcing seed money regardless of the threshold level.

In general, by showing an increase in revenue when using seed money, our results provide evidence for our first hypothesis. However, we found one exception: seed money does not increase revenues in appeals with a rather low threshold targeted at the most loyal contributors. By investigating our first research question, we found that 50% as well as 67% seed contributions are equally effective. The answer to our second and third research question is that, for new and less loyal contributors, the use of seed money has a positive influence on the contributions despite the size of the threshold level. There is however an important qualification. Seed money is a good strategy, except for appeals with a rather low threshold targeted at the most loyal contributors. Finally, we demonstrate thus a need for differentiation when communicating seed money in the solicitation.

5 DISCUSSION

The results of this experimental study contribute to the extant literature on the effectiveness of seed money in fundraising appeals. Based on a field experiment in two fundraising campaigns sending 25,617 solicitation letters we examined the role of seed money and threshold size on charitable giving in three different donor segments: prospects, contributors with low loyalty scores, and contributors with high loyalty scores. On the one hand, our approach is unique in making a differentiation across donor segments by analyzing past behavior. On the other hand, it is the first study that explores the role of the threshold size in combination with seed money. It is, however, important to note that this study is not intended to capture the entire range of perspectives on important issues when working with seed money.

Taking the research of List and Lucking-Reiley (2002) and Rondeau and List (2008) as a starting point, our study of seed money in charitable direct mail campaigns yields several findings. First of all, not unexpectedly, the announcement of seed money leads to a higher

response rate, and consequently higher revenues, for both acquisition campaigns and solicitations toward less loyal contributors. In this kind of campaigns, the size of the threshold does not play a crucial role. In contrast, when analyzing the best donors of the charity, we identified neither a main effect of seed money nor a main effect of the threshold level. But, a predominating interaction effect between the use of seed money and the level of the threshold occurs. More specifically, only when announcing a relatively high threshold, we do find the same patterns as in the cold list segment and in the segment of less loyal contributors. However, regarding this most loyal segment, one of the most remarkable results is that a campaign focused on a relatively low threshold is better off working without seed money.

Although this study is not the first to examine the role of seed money in charity appeals, its design adds external validity and important modifications to earlier findings in academic research. We agree with previous research that seed money is definitely a good strategy when soliciting from both a cold list of prospects and contributors that are behaviorally less loyal. However, one crucial difference with prior studies and our study is that seed money is only an efficient strategy with the best contributors when the threshold is high enough. This finding is a novel qualification of Andreoni's (1998) theory on charitable fundraising who suggests that seed money is generally a good strategy. Therefore, in direct mail campaigns targeted at the best donors, we advise being careful when announcing seed contributions. We believe our findings could be explained by Louro et al.'s (2007) model of multiple-goal pursuit indicating the importance of the individuals' expectancy of success. Another explanation might be referring to what extent do people want to feel needed and to what extent is that feeling needed different for diverse donor segments. For example, for the most loyal contributors, it could be that if you already collected a lot of money it seems like a lot of people are contributing and that this makes them feel less needed because you already have a lot of money. However, for the less loyal segment it could just be the opposite. For example, this donor segment may just want to know whether they really can make a difference (i.e., "Am I the one?"). Or, if the less loyal donors who didn't donate for a while see that a lot of people donated before, it can be easier to become active again because the announcement of seed money indicates then that it is the right time to move to donating again. Therefore, an interesting opportunity for further research is to investigate more in depth whether different segments are dealing with different perspectives explaining the interaction.

Considering the previously discussed results, we would highly recommend a cautious differentiation strategy, taking into account the level of the threshold at hand. Seed money is definitely a good strategy when the threshold is high enough but in combination with a relatively low threshold it could have a baleful influence. Hence, our results recommend considering the size of the threshold when investigating the role of seed contributions. Especially when focusing on loyal contributors of the charity. In addition, research on the effectiveness of fundraising campaigns must take into account the past behavior of the target. For this, a link with the database of the charity is of vital importance.

The findings also have practical implications. We demonstrate different effects according to the donor segment indicating a need for differentiation in the communication strategy. By showing an interaction effect between the use of seed money and size of the threshold, the results suggest that when professional fundraisers want to optimize their campaigns, attention must be focused on the size of the threshold. In general, announcing seed money is always a valuable strategy except when raising funds for a relatively low threshold. In this latter situation, it is more efficient not to announce seed money in appeals toward the best donors because of its detrimental effect. Or, in other words, for highly loyal donors the residual money required should signal a necessity that is large enough in order to encourage them to contribute. However, more research on the size of the threshold is needed here. It would be interesting to investigate if our results hold for different levels of thresholds. Expanding this experimental design in other fundraising situations could also be a fruitful area for further research. Incorporating a reactivation campaign in the experimental design could prove useful too. Finally, it would be worthwhile to further explore the question of which level of seed money best works with which level of threshold. What happens when the percentage of seed money is higher than 67 percent? We advice further researchers to investigate more variance in the manipulations to examine possible non-linear effects. Another issue is to investigate how contributors exactly perceive the size of the threshold. In other words: is the €11,900 being perceived to be high and the €3,900 as low?

Moreover, an interesting opportunity for further research is to investigate whether our results can be generalized to other fields and to investigate other applications related to the announcement of seed money. A nice illustration may be KIVA¹³. KIVA empowers individuals to lend to an entrepreneur across the globe. By combining microfinance with the

¹³ www.kiva.org

internet, KIVA is creating a global community of people connected through lending and on their website they announce how much money have already been raised for each specific project. Another example might be related to volunteer helping behavior. If someone asks, by inviting his friends, on Facebook to help one weekend with his renovation, you can see how many friends are attending. It could be that more loyal friends are likely to confirm when they see that there are not a lot of volunteers yet. While for less loyal friends it may be that they first need to see that a lot of people are joining. The applications of this study may even go beyond non-profit. For example, our findings may have implications for realtors because real estate agents often mention how much of the properties are sold (e.g., ‘We already sold 50% of the apartments’). They never announce that 5% of the apartments are sold. It can be interesting to explore the optimal proportion in this context and investigate, for example, what happens at 90%. Maybe people are not encouraged anymore because they can only visit the property in three days or they just may be very interesting because they really want the property. As we show that for prospects it is better to announce seed money, our results might have implications for starting companies. For example, If you start up a company creating websites, to convince new clients, it might be more convincing when you can show a lot of references rather than when you have no clients yet. Moreover, based on the results, we could expect that if you want to try a new restaurant and there is no people inside, you probably may look for another restaurant while for highly loyal clients, when the restaurant is almost full, they may not be interested anymore.

In conclusion, this research is the first to demonstrate the effect of both seed money and size of the threshold on charitable contributions across donor segments. It reveals an important qualification of the announcement of seed money. For practitioners, it clearly shows the necessity of a differentiation in direct mail appeals by considering past behavior of their donors.

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**CHAPTER 4 : EMPATHY AS ADDED VALUE IN
PREDICTING DONATION BEHAVIOR**

CHAPTER IV:

**EMPATHY AS ADDED VALUE IN PREDICTING DONATION
BEHAVIOR**

ABSTRACT

Past behavior and socio-demographics form traditional predictor sets of charitable giving. The present study examines in real-life how measures of empathy (i.e., empathic concern and personal distress) can improve these predictions. Findings confirm the relevance of traditional predictor sets and reveal the added value of including measures of empathy. More specifically, empathic concern positively affects the donation decision. In addition, this article shows that empathy negatively affects the donor's generosity toward one charity. However, for individuals high on empathic concern, only looking at generosity toward one charity could mislead because these people are more likely to donate to different charities. Consequently, this result has implications for their overall generosity. Therefore, a clear distinction between both personality traits is necessary.

1 INTRODUCTION

Understanding charitable giving is a crucial element in attracting and retaining private donors. Past behavior and socio-demographics form traditional predictor sets of charitable giving. While the first often captures recency, frequency and monetary value (i.e., RFM variables), the latter reflects, for example, features like income and age. Prior studies regularly consider intentions as good indicators of consumer behavior. This study examines whether and how psychological measures of empathy can improve these traditional models of charitable giving. More specifically, the focus lies on the personality traits¹⁴ empathic concern and personal distress. According to Davis (1983a), both constructs involve emotional dimensions of empathy and reflect distinctive feelings toward unfortunate others or oneself because empathic concern is other oriented and personal distress is self oriented.

Whereas previous research often proposes empathy as an explanation for helping behavior, this study looks at the predictive power of both personality measures on top of past behavior, intentions, and socio-demographics. In particular, this article considers two distinctive aspects of charitable giving: the decision whether or not to contribute on the one hand, and the generosity of the donor (i.e., donation amount in case of donating) on the other hand. For both dimensions, this study reports the relevance of the above predictor sets in a real charitable fundraising setting. Hence, at first glance, by considering the database of a European charity and data augmentation through questionnaires, the focus is on donation behavior toward one charity. Initially, the study in this report tests both models of donation decision and generosity for one charity. The results show that both emotional dimensions of empathy have a differential influence on the decision to donate and generosity. In addition, this study indicates that only looking at generosity toward one charity could lead to wrong interpretations and a valuable strategy is therefore to consider donation behavior across all different charities.

The remainder of this article proceeds as follows. The next section provides the theoretical background regarding traditional predictor sets of charitable giving followed by an elaboration on the role of empathy in helping behaviors. This section addresses the research question and hypotheses. Consequently, this report presents results from a first study in cooperation with a European charity in order to test the research question and predictions

¹⁴ Initially, we also investigated the Self-Report Altruism Scale (Rushton, 1981) as a potential additional predictor. However, the added value of this measure was very poor so we decided to focus on empathy because of the relevance of empathic concern and personal distress.

derived from the theoretical background. This first study considers both transactional data as stored in the database of the charity as well as survey information. The subsequent section reports results from a second data collection to question the generosity aspect more in depth by investigating the relationship of empathy with general donation behavior across all possible different charities. Finally, the latter part discusses the conclusions of both studies and outlines some suggestions for further research and implications for fundraising management.

2 THEORETICAL BACKGROUND

2.1 CHARITABLE GIVING

During the past decades, research interest in understanding helping behavior is growing. These studies capture a variety of helping behavior like volunteering, donating blood or money. However, most of prior research investigates helping in a laboratory setting by measuring intentions to help. Just a few studies investigate monetary donation behavior in real-life. In this context, direct mail is one of the most important instruments for fundraising nowadays. By considering monetary gifts and helping in general, two decisions are important for potential donors. On the one hand, the potential donor has the decision to help or not to help. On the other hand, after deciding to help, one needs to decide how much to help. Investigations on helping behavior often neglect this latter aspect. Therefore, this study investigates the decision to donate money as well as the generosity of the donor in a real-life direct mail fundraising setting.

2.2 TRADITIONAL PREDICTORS FOR CHARITABLE GIVING

Direct marketing and direct mail fundraising in particular, generally consider past response behavior as the best predictor for future response. Past donation behavior is then traditionally conceptualized as (r)ecency, (f)requency and (m)onetary value. In a charitable context, recency commonly involves the number of days since the last donation. Frequency usually reflects the number of donations over a period of time. Finally, monetary value implicates the total amount donated by a particular individual (Bitran and Mondschein, 1996). Prior studies show that past donation behavior is an important driver of both donation decision and generosity (e.g., Bult, van der Scheer, and Wansbeek, 1997; Jonker, Piersma, and Van den Poel, 2004). From a practical point of view, the computation of RFM variables is relatively easy because this information is stored in the database of the charity and consequently this set

does not require an additional data collection. However, an important remark here is that the calculation of RFM variables is based on previous donations by considering one charity.

Despite overwhelming evidence that RFM variables are an important predictor set, different studies investigate the effect of including other predictors as well. Most of them, such as socio-demographic variables, often require an additional data collection. In line with prior research findings, this study expects that age will positively affect charitable giving (e.g., Van Slyke and Brooks, 2005). This prediction is also in line with current practices in fundraising because charities are more likely to target older people. Bekkers (2006) finds that financial capital promotes traditional philanthropy (i.e., monetary donations). Starting from the integrated theory of volunteer work (Wilson and Musick, 1997), Bekkers states that, the availability of resources in the form of financial capital reduces the cost of charitable giving. More specifically, for individuals with higher income, a \$100 donation to a charitable organization is less costly than for those earning lower incomes. Therefore, income could be an important driver of generosity. Besides these sets, this study also investigates the usefulness of including donation intentions. Starting from the Theory of Planned Behavior (Ajzen 1991), De Cannière, De Pelsmacker, and Geuens (2009) find that behavioral intentions predict purchase behavior, even in combination with actual past behavior. Although these authors investigate purchase behavior rather than charitable giving, they conclude that intentions might capture unique variance in the purchase decision that past behavior does not capture. Because such studies often consider intentions to be valuable indicators of real behavior, the present study investigates if intentions contribute in explaining charitable giving over and above real-life past behavior. Next to the above predictor sets, this study examines whether and how measures of empathy could improve these traditional models.

RQ1: To what extent are the traditional predictor sets of past behavior, intentions and socio-demographics important in predicting charitable giving in a direct mail fundraising setting and can the inclusion of personality measures of empathy improve these models?

2.3 EMPATHY AS PREDICTOR FOR CHARITABLE GIVING

In the last two decades, the number of studies that propose empathy as an explanation for prosocial behavior grows substantially. Such studies often investigate empathy as a mental state by manipulating the generation of thoughts and feelings of empathy (e.g., Batson, 1991). These studies examine how the reported mental states of sympathy and personal distress induce helping behavior. In contrast to this mental state approach, some researchers define

empathy as a personality trait and investigate how individual differences in empathy affect helping behavior (e.g., Davis, 1983b). This last research method considers empathy as a multidimensional construct including both cognitive and affective dimensions. According to the Interpersonal Reactivity Index of Davis (1983a), this latter dimension consists of two negative emotional components. This personality measure for empathy demonstrates considerable convergent and discriminant validity in various studies (Davis, 1994). The first affective construct, empathic concern, refers to feelings of sympathy and compassion for distressed others. For that reason, this affective response to the target is clearly other oriented rather than self oriented (Davis, 1994). Secondly, personal distress is also an affective response experienced by an observer in response to unfortunate others. However, personal distress points at self-oriented feelings of personal anxiety, discomfort and unease in tense interpersonal settings. Consistent with this view on both constructs, the empathy-altruism hypothesis also addresses this distinction between empathic concern and personal distress and reflects a differentiation between altruistically versus egoistically motivated behavior (e.g., Batson, 1991). More specifically, the empathy-altruism hypothesis states that the confrontation with individuals in need may lead to increased levels of empathic concern and/or personal distress. According to this hypothesis, individuals with feelings of empathic concern focus on the person in need and this focus results in a selfless and purely altruistic motivation to reduce the distress of unfortunate others. In contrast, when individuals experience feelings of personal distress, the person's attention focuses on the self and this focus leads to an egoistic helping motivation in order to reduce the distress of oneself. As a result, both types of motivations are likely to stimulate helping behavior (Bendapudi, Singh, and Bendapudi, 1996).

The majority of past studies on empathy investigate a variety of volunteering and helping behaviors. This indicates a lack of research on the relationship between empathy and the donation of money in a real fundraising setting. With respect to the decision to help, considerable evidence exists that heightened feelings of empathic concern lead to helping a regrettable other (e.g., Davis, 1983b). This finding reflects the notion that individuals high on empathic concern decide to help in order to reduce the stress of regrettable others. This view is in accordance with altruistically motivated helping because this motivation is directed toward the end-state goal of increasing the other's welfare.

Less research is available on the relationship between personal distress and helping (e.g., Unger and Thumulari, 1997). Batson (1991) finds that feelings of personal distress lead to helping only when avoiding to provide help is not easy. Because traditional philanthropy often occurs in response to personal solicitations for contributions, escaping these helping situations without contributing is difficult (Bekkers, 2006). In this study, by only considering people who receive at least every month one charitable appeal and who donated to the charity before, escaping may be not that easy for them. Personal distress often relates to an egoistic response system indicating that individuals high on personal distress help in order to reduce their own distress in the first place. This egoistically motivated helping directs toward the end-state goal of increasing the helper's own welfare. Although these personality traits reflect clearly distinctive motivations, this study expects that both negative emotional reactions toward others (i.e., empathic concern) and oneself (i.e., personal distress) influences the donation decision positively.

H1a: The higher the empathic concern, the higher the likelihood to decide donating money.

H1b: The higher the personal distress, the higher the likelihood to decide donating money.

These hypotheses are in accordance with the negative mood repair theories. These theories state that, in the end, individuals want to feel good and when feeling bad they have a universal goal to repair the negative mood (Buss, 2000). Assuming that, in a confrontation with needy people, both reactions of personal distress and empathic concern will lead to experiences of negative feelings. More specifically, personal distress is likely to induce emotions like sadness, guilt or anxiety and empathic concern is likely to elicit emotions like sympathy and concern. In both cases, helping through donating could relief these negative emotions in a confrontation with other people's problems (Dillard and Nabi, 2006).

Previous studies on empathy look at the likelihood to help or the decision to help rather than the amount of helping conditional on the decision to help. Therefore, a limited amount of research focuses on the extent of helping. However, in this context, Bekkers (2006) finds a positive relationship between empathic concern and generosity, the second dependent variable, meaning that a higher empathic concern instigates higher total contributions. This finding corresponds to the view that individuals with high scores on empathic concern are other oriented and want to increase the welfare of unfortunate people. For personal distress, the relationship with generosity is less clear in academic literature. Because the negative

feeling is self oriented, any donation, and thus a low donation in particular, could already provide this feeling of relief, which implies that personal distress associates not automatically positively with generosity as well. Given that a mere donation could satisfy the egoistic motivation and that consequently this simple donation could repair a negative mood, a generous gift is not additionally essential. Hence, individuals high on personal distress may donate smaller amounts.

H2a: For individuals who decide to donate, the higher the empathic concern, the higher the generosity toward the charity.

H2b: For individuals who decide to donate, the higher the personal distress, the lower the generosity toward the charity.

3 STUDY 1

3.1 METHOD

A large-scale study was conducted by considering transactional data and self-report information of 1,385 Europeans in the beginning of 2008. The survey was included in a real fundraising campaign of a European charity by asking individuals' intentions to donate until the end of 2008. In addition, the empathic concern and personal distress scale, birth date and income were incorporated. At the beginning of 2009, the charity provided the real donation behavior of the respondents on subsequent campaigns in 2008. Note that all individuals receive the fundraising appeals of the charity on a monthly base. Two models are investigated: (1) a model to predict the decision to donate in the remainder of 2008 and (2) a model to predict the total amount of donations until the end of 2008 (conditional on the donation decision). The dependent measure of the first model is a dummy variable indicating whether or not the individual donated in the period after the survey and the end of the year 2008. The second dependent measure reflects the total amount that was donated during the rest of the year. As in Reingen (1982), regarding the contribution level, a $\log(X + 1)$ transformation was first performed on the data.

This study investigates four sets of independent measures. The first contains the traditional RFM variables and is calculated based on the transactions stored in the database of the charity. This first set thus reflects the recency (i.e., number of days since last donation), frequency (i.e., number of donations during the past) and monetary value (i.e., $\log(X + 1)$)

transformation on the total amount of donations in the previous period) of each donor at the beginning of 2008. While the first set originates from real transactional data, the other sets are self-reported. The second set involves donation intentions for 2008 toward the charity of interest. For this variable, the questionnaire identifies how much money an individual intends to donate during the rest of 2008. Because this latter variable relates to donation sizes, a log $(X + 1)$ transformation is also performed on this measure. The third set comprises two socio-demographic characteristics, being age and income. The first measure is calculated by asking the date of birth. The latter is captured in a question in which the answer comprises different ranges of income. The last set of independent measures relates to both emotional dimensions of empathy discussed earlier, that is, empathic concern and personal distress. The empathic concern scale contain items such as “I often have tender, concerned feelings for people less fortunate than me.” and “I am often quite touched by things that I see happen”. Item examples for the personal distress scale include, “It occasionally embarrasses me when someone tells me their problems.” and “Being in a tense emotional situation scares me.”. As a first step, to assess the validity of both constructs, the initial 14 items developed for measuring the two dimensions of empathy were submitted to factor analysis. Items with loadings less than .50 and/or items with cross loadings higher than .40 were discerned (final loadings, cfr. Appendix). The deletion of these items was based on content considerations to minimize the reduction of the meaning of the constructs. This resulted in the deletion of one of the seven empathic concern items and two of the seven personal distress items. Scale reliability is assessed by Cronbach’s coefficient alpha. Both subscales are reliable with a Cronbach’s alpha of .64 for empathic concern and .69 for personal distress. There is no substantial improvement by deleting one or more items. The correlation among both dimensions of empathy is very low ($r = .001$, $p > .10$). The mean value of empathic concern is 5.46 ($s = .86$) and the average personal distress is 4.12 ($s = 1.09$).

Hierarchical multiple regression analysis is used to regress charitable giving onto the four sets of independent measures. The first regression analysis investigates the decision to donate by considering all the survey participants. Generosity involves only the individuals who made a donation until the end of 2008. Each set equals one block in the regression and a stepwise selection technique selects the best predictors within each block. In the last block both dimensions of empathy enter in order to determine the added value of both psychological measures. The following section discusses these final models.

3.2 FINDINGS

In both models, the results imply that empathy is a significant predictor on top of the traditional predictor sets of past behavior, intentions and socio-demographics. At each step in the logistic regression, -2LL decreases significantly and at each step in the linear regression, R-square improves significantly. By looking at the importance of the separate blocks in the hierarchical regression analysis, despite the relevance of empathy, the traditional predictor sets seem to be more substantively important predictors of charitable giving than empathy. However, although the variance explained by empathy is low, this is significant.

Table 8 presents results of the hierarchical logistic regression with the decision to donate or not to donate as the dependent variable. The overall model is significant ($p < .001$). In the first block of the logistic regression, in accordance with previous studies, the variable selection technique selects frequency as the first variable. More specifically, frequency is positively associated with the donation decision indicating that the higher the number of past donations, the more likely the individual will donate in the future. Next, the analysis reveals a negative effect of recency meaning that as the number of days since the last gift increases, the propensity to donate decreases. Regarding the second block, intentions appear to increase the explained variance in the decision to donate on top of past behavior. Also in line with prior research, an important predictor regarding the socio-demographical set of variables is age. The positive effect of age demonstrates that the older the individual, the more likely this individual will respond to charitable direct mails. The last block contains the inclusion of the personality measures and results in a significant improvement of the model. However, only the personality trait empathic concern explains a significant amount of variance in the donation decision over and above the traditional predictor sets, with significant decrease in deviance. Hypothesis 1a receives empirical support as the positive coefficient estimate indicates that as empathic concern increases, the propensity to donate also increases. In regard to personal distress, Hypothesis 1b receives no support because personal distress does not relate to the decision to donate. The first hypothesis is thus partially confirmed.

Table 8: Hierarchical regression results for decision to donate

Variable	Exp(B)	B	S.E.
Frequency	1.36***	0.31	0.04
Step 1 Δ -2LL	79.76***		
Recency	1.00***	-0.002	0.00
Step 2 Δ -2LL	129.24***		
Intentions	1.11	0.11	0.07
Step 3 Δ -2LL	3.97*		
Age	1.02***	0.02	0.01
Step 4 Δ -2LL	14.18***		
Empathic concern	1.28*	0.25	0.10
Personal distress	1.09	0.09	0.08
Step 5 Δ -2LL	7.82*		
Model -2LL	905.14		
Constant	0.05***	-3.07	0.81
Nagelkerke R^2	.28		
N	1385		

* $p < .05$.** $p < .01$.*** $p < .001$.

Table 9 summarizes the results with respect to generosity. The regression model is significant ($p < .001$). Again, past behavior explains most of the variance in total donations. The significant positive effect of monetary value indicates that the more generous a person is during the past, the more generous this person will be in the future. Additionally, recency is negatively associated with generosity. Subsequently, the selection of intentions for 2008 indicates that as intentions increase, the generosity increases as well. Next, the inclusion and positive effect of income means that the higher the income, the higher the total gift. In general, the analysis confirms the importance of the traditional predictor sets. Additionally, the inclusion of empathic concern and personal distress in the last step explains a significant increase in the variance in total donations. Inspection of the coefficient estimates then reveals a negative effect of both empathic concern and personal distress demonstrating that the higher the empathy, the lower the size of total donations. Consequently, these results only support Hypothesis 2b indicating that highly egoistically motivated individuals are more likely to

donate smaller amounts of money based on direct mail campaigns. However, the same pattern for highly altruistically motivated individuals shows up. As individuals high on empathic concern are donating lower donation levels based on direct mail campaigns of one charity, this study does not confirm Hypothesis 2a.

Table 9: Hierarchical regression results for generosity

Variable	β	b	S.E.
Monetary value	0.74***	0.67	0.02
Step 1 ΔR^2	.592***		
Recency	-0.05*	0.00	0.00
Step 2 ΔR^2	.002*		
Intentions	0.05**	0.04	0.01
Step 3 ΔR^2	.003**		
Income	0.04*	0.03	0.01
Step 4 ΔR^2	.002**		
Empathic concern	-0.05**	-0.06	0.02
Personal distress	-0.06**	-0.05	0.02
Step 5 ΔR^2	.005***		
Model F	300.31***		
Constant		1.06	0.17
Adjusted R^2	.60		
N	1186		

* $p < .05$.

** $p < .01$.

*** $p < .001$.

At first glance, this negative effect of empathic concern on generosity is quite surprising. However, the previous analysis only looks at generosity toward one charity. Therefore, a second large-scale data collection is conducted to investigate the relationship between empathy and generosity across all of the different charities. The reason for this second data collection is that empathic concern might just have a negative effect on the generosity toward one charity, while this personality trait actually stands in a positive relationship with one's total generosity. In other words, higher empathically concerned, and thus altruistically motivated, individuals want to reduce the distress of others by increasing the welfare of the

these others through donating. Because those people are other oriented, they might be more sensitive to respond to different initiatives and this may result in relatively smaller donations for each distinctive charity. However, because of the donations toward different charities, for highly empathically concerned individuals, the total generosity could be higher. Hence, empathic concern may be an important driver of donating to multiple charities. A second study aims to investigate this proposition.

4 STUDY 2

4.1 METHOD

During the beginning of 2009, a self-reported questionnaire collects information about donation behavior of 2,530 individuals. This survey provides detailed information regarding the number of supported charities in 2008, the total amount donated in 2008, and the personality measures of empathic concern and personal distress according to Davis (1983a). In line with the first study, the validity of both constructs is assessed by a factor analysis on the initial 14 items of empathy. Based on poor loadings, we detected three bad items: one of empathic concern and two of personal distress (final loadings; cfr. Appendix). Concerning reliability, the Cronbach's alpha for empathic concern is .70 and .80 for personal distress. The correlation among both dimensions of empathy is rather weak ($r = .08$, $p < .01$). The mean value of empathic concern is 5.01 ($s = .82$) and the average personal distress is 3.78 ($s = 1.05$). This data collection now enables to calculate the donor's breadth (e.g., Webb, Green, and Brashear, 2000), or the number of different charities supported by the donor in 2008. In nonprofit marketing, multi-donorship is a rather unexplored domain. In addition, this study provides insight into the individual's total generosity (i.e., the total amount donated across all charities). Consequently, the main purpose of this additional study is to investigate whether a positive relationship exists between multi-donorship and empathic concern and whether this relationship is absent for personal distress. In addition, the authors expect a positive relationship between empathic concern and total generosity as well as a negative relationship between personal distress and total generosity.

4.2 FINDINGS

Because this second study focuses on generosity conditional on donating, the analysis only considers individuals who did contribute in 2008 ($N = 1381$). Interestingly, as expected, a significant positive relationship between empathic concern and breadth ($r = .24$, $p < .001$)

indicates that individuals with a higher empathic concern are more likely to give to more different initiatives. Such relationship between empathic concern and multi-donorship may explain the negative relationship between empathic concern and generosity toward one charity. By summarizing the total donations in 2008 across all charities, investigation of the relationship between empathic concern and total generosity is possible. As predicted, the analysis reveals a significant positive relationship between empathic concern and total generosity ($r = .20$, $p < .001$). This positive relationship is in accordance with previous research and consistent with the prediction in Hypothesis 2a. In other words, by looking only at generosity toward one charity you may miss the complete picture.

On the other hand, for personal distress, as expected, no significant relationship ($p > .10$) between personal distress and multi-donorship appears. As in the first study, a negative relationship ($r = -.116$, $p < .01$) between personal distress and total generosity indicates that people with egoistic motivations for donating are generally less generous. Again, this finding supports Hypothesis 2b and the fact that a small donation instigates the repair of the negative mood that is addressed to the person him/herself, might explain this effect.

5 THE VALUE OF KNOWLEDGE ABOUT EMPATHY

5.1 AIM

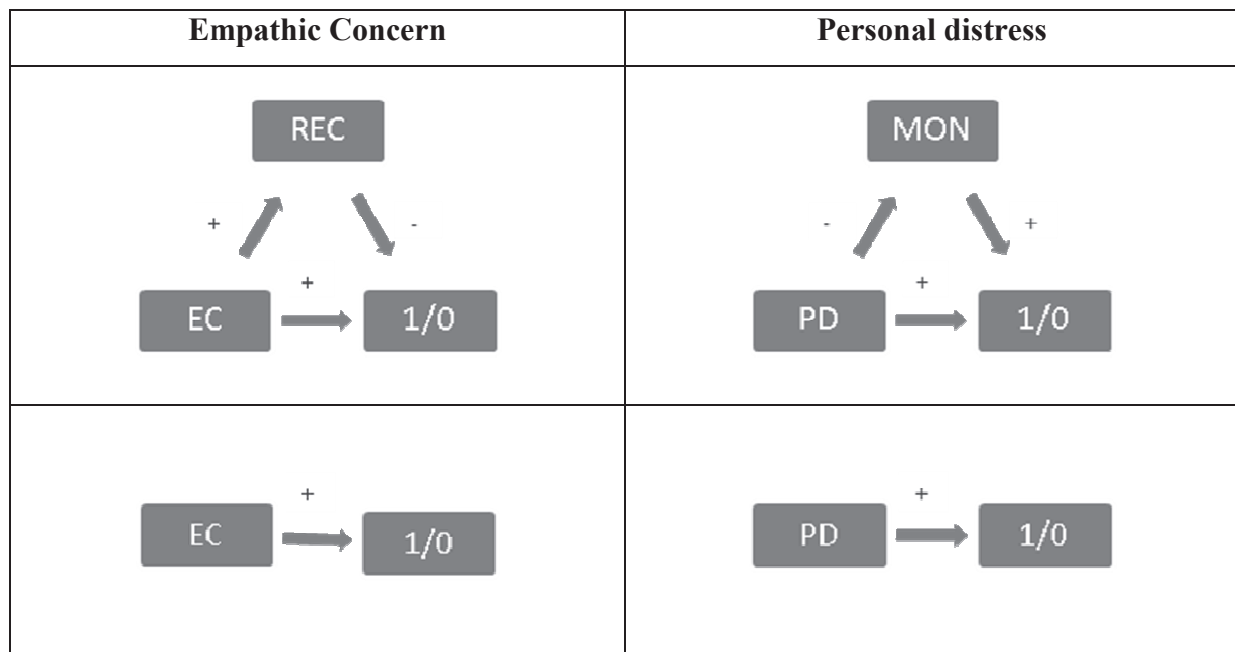
Although the first study demonstrates a significant improvement of the model by including measures of empathy, the contribution of empathic concern and personal distress seem not very high based on the hierarchical regression analysis. However, if past behavior mediates the effect of empathic concern or personal distress on charitable giving, the implications of these results are much more powerful. In particular, this is the case for acquisitioning because for these prospects, no RFM-information is available. Consequently, if past behavior mediates the relationship between empathy and charitable giving, information about individual's empathic concern and personal distress is much more relevant. Therefore, the next section reports the results of this mediation analysis.

5.2 FINDINGS

Separate analyses per dependent measure (i.e., decision to donate versus generosity) per empathic dimension (i.e., empathic concern versus personal distress) and per potential mediator (i.e., recency, frequency and monetary value) are performed. The overall

significance of the indirect effect (i.e., path through the mediator) is assessed with a bootstrapping mediation test (Preacher and Hayes, 2004; Shrout and Bolger 2002; Zhao, Lynch, and Chen, 2010). Two diverse mediators mediate the impact of both empathic dimensions on donation behavior. On the one hand, recency mediates the relationship between empathic concern and donation behavior. On the other hand, monetary value mediates the relationship between personal distress and donation behavior. Frequency does not appear as a mediator in the current context.

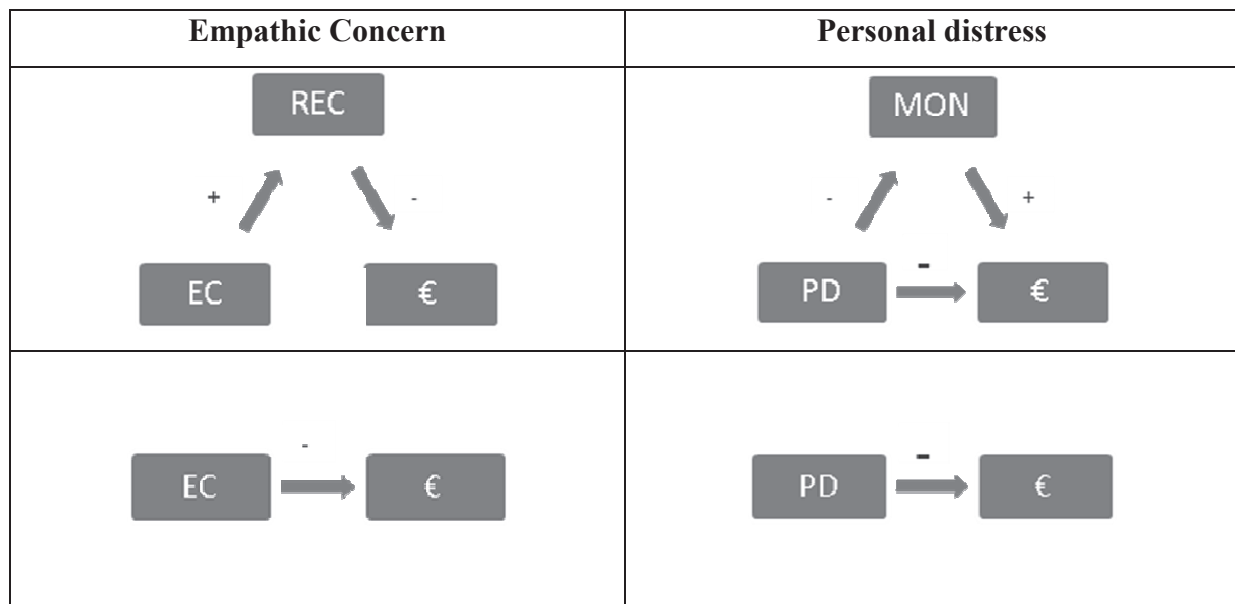
Figure 2: Mediation analysis related to the decision to donate



First, related to the binary dependent measure, the direct path between empathic concern and the donation decision ($b(YX) = .16, p < .10$) as well as the direct path between personal distress and the donation decision ($b(YX) = .13, p < .10$) is positive and marginally significant. On the one hand, recency mediates the relationship between empathic concern and the donation decision. More specifically, empathic concern increases the number of days since last donation toward one charity ($b(MX) = 8.55, p < .10$); which in turn decreases the likelihood to donate ($b(YM.X) = -.004, p < .001$). The bootstrap estimate of this indirect effect (effect value = $-.03$) and the constructed 95% confidence interval (lower bound 95% CI = $-.070$, upper bound 95% CI = $-.0001$), based on 5,000 replications, show that 0 is not in the 95% confidence interval, so this negative indirect effect is significant. On the other hand, monetary value mediates the relationship between personal distress and the donation decision. In particular, personal distress reduces the monetary value ($b(MX) = -.06, p < .05$); which in

turn increases the likelihood to donate ($b(YM.X) = .67, p < .001$). The bootstrap estimate of this indirect effect (effect value = $-.04$) and the constructed 95% confidence interval (lower bound 95% CI = $-.083$, upper bound 95% CI = $-.006$), based on 5,000 replications, show that 0 is not in the 95% confidence interval, therefore this negative indirect effect is clearly significant. Moreover, after controlling for the mediator, the direct path between empathic concern and the donation decision ($b(YX.M) = .22, p < .05$) as well as the direct path between personal distress and the donation decision ($b(YX.M) = .18, p < .05$) are positive and significant suggesting partial mediation. Furthermore, since both direct and indirect paths have opposite signs, competitive mediation manifests suggesting the existence for other mediators that might explain a positive indirect path (Zhao, Lynch, and Cheng, 2010).

Figure 3: Mediation analysis related to generosity



Second, related to the dependent measure of generosity, the direct path between empathic concern and generosity ($b(YX) = -.06, p < .10$) as well as the direct path between personal distress and generosity ($b(YX) = -.11, p < .001$) is negative. In line with the decision to donate, the same mediators exist in these relationships. On the one hand, for empathic concern, the effect on recency is positive ($b(MX) = 11.5, p < .05$) and the effect of recency on generosity, controlling for empathic concern is negative ($b(YM.X) = -.002, p < .001$). The bootstrapped estimate of the indirect effect of empathic concern on generosity through the mediator recency is $-.04$ and the true estimated indirect effect is estimated to lie between $-.08$ and $-.01$ with 95% confidence. Because zero is not in the 95% confidence interval, we can conclude that the indirect effect is indeed significantly different from zero at $p < .05$. On the

other hand, for personal distress, the effect on monetary value is negative ($b(MX) = -.08$, $p < .05$) and the effect of this mediator on generosity, controlling for personal distress is positive ($b(YM.X) = .69$, $p < .001$). The bootstrapped estimate of the indirect effect (effect value = $-.05$) and the constructed 95% confidence interval (lower bound 95% CI = $-.09$, upper bound 95% CI = $-.01$), based on 5,000 replications, show that 0 is not in the 95% confidence interval, so this negative indirect effect is also significant. On the one hand, in contrast to the positive direct effects of empathy on the decision to donate, after controlling for the mediator, the direct path between empathic concern and generosity ($b(YX.M) = -.04$, $p > .10$) is not significant, suggesting full mediation. The direct path between personal distress and generosity ($b(YX.M) = -.06$, $p < .001$) is negative and significant indicating partial mediation. Moreover, because of the equal signs of the indirect and direct paths, complementary mediation manifests. This indicates that other mediators might exist in explaining a negative indirect path.

6 CONCLUSIONS AND MARKETING STRATEGY IMPLICATIONS

In sum, past behavior, intentions, socio-demographics as well as psychological measures of empathy are all important in predicting charitable giving. Hence, this study confirms previous findings regarding traditional predictor sets of monetary donations in fundraising. The key contribution is that this study extends previous findings by demonstrating the added value of important psychological measures of empathic concern and personal distress on top of traditional independent measures. A second important contribution of this study is considering a large-scale data set by measuring real donation behavior, stored in the database of the charity, and not only donation intentions which is usually the case in prior research.

More specifically, both emotional dimensions of empathy have a differential influence on the donation decision and generosity decision toward the charity of interest. On the one hand, empathic concern positively affects the donation decision. This finding makes sense, given that donors with a high level of empathic concern focus on alleviating their negative mood toward the unfortunate others which could be accomplished by making a donation. However, personal distress does not influence the decision to donate. An explanation might be that in the context of this study, the ease of escape was higher than what was assumed. On the other hand, both measures of empathy could negatively affect the donor's generosity toward the individual charity. For empathic concern, this unexpected result leads to a second study. This additional data collection points out that donors high on empathic concern are individuals who

donate toward different charities. These people have a higher breadth and are thus more likely to comply with donation requests of diverse charities. An explanation might be that they are rather other oriented and feel compassionate with others. Hence, they want to repair their negative feelings toward the needy by dividing their money across many different initiatives. Interestingly, looking only at generosity toward one charity could lead to wrong interpretations because, by summarizing the donations across all charities, people high on empathic concern are more generous in general. Individuals high on personal distress are less generous toward one charity as well as toward all other charities together. These egoistically motivated individuals are rather self oriented and the fact that the main concern of individuals high on personal distress is likely to repair the negative mood toward themselves, may explain this negative effect on generosity. A mere decision to donate may repair this negative mood. Apparently, making a high contribution is not necessary for individuals high on personal distress, given that merely making a contribution itself may already satisfy their main motivation. Personal distress is not related to the breadth of the donor. Hence, this study demonstrates similarities as well as dissimilarities between both measures of empathy. Further research is, however, necessary to study this phenomenon more in depth.

The mediation analysis points out that the relationship between empathy and charitable giving is mediated by past behavior. Therefore, the results clearly show the relevance of collecting information about empathic concern and personal distress of potential donors. Because of the positive direct effects of empathy on the decision to donate, we conclude that individuals high on empathic concern or high on personal distress are more likely to respond to charitable direct mails. In contrast, when charities want to maximize the gift size, it is better to target individuals low on empathic concern or low on personal distress. In addition, because of the different mediators, the analyses confirmed the distinction between both dimensions of empathy. In particular, recency mediates the relationship between empathic concern and charitable giving. The positive path between empathic concern and recency might be surprising. However, the analysis only considered recency toward one charity. As we showed that people high on empathic concern are rather multiple donors, further research might take into account past behavior toward all potential charities instead of only looking at one charity. The negative path between personal distress and monetary value is more obvious and is in line with the self-oriented and egoistic motivated helping behavior indicating that individuals high on personal distress simply want to reduce their own distress rather than to increase welfare of others.

Although this study provides important insights in charitable giving on donation requests in direct mail fundraising, several shortcomings must be noted. These limitations suggest opportunities for future research. First, this study focuses on direct mail campaigns toward individuals who donated to the charity before. Concerning the mediation analysis, despite progress in the current study, there is room for future work accounting for the direct effect. In searching for additional mediators, future authors should focus first on those that would produce a positive indirect path between empathy and the donation decision. Moreover, further research needs to validate our findings in an acquisition context. Therefore, an interesting opportunity for further research is to investigate whether the findings for empathic concern and personal distress hold for acquisition campaigns targeted at individuals who never contributed to the charity before. Related to the mediation analysis, another opportunity for further research is to take into account past behavior toward all potential charities instead of only looking at one charity. Finally, although this study shows the added value of personality measures in predicting charitable giving, an opportunity for further research remains to incorporate other personality traits and perceptions of givers (e.g., Sargeant, Ford and West, 2006) next to measures of empathy.

Besides the theoretical contributions on whether and how personality measures of empathy could improve current models on the donation decision and generosity, the findings also offer practical implications for fundraisers improving their direct mail marketing strategy. From a managerial point of view, the database of a charity is a crucial source of information and highly important in predicting charitable giving. Data augmentation through data collection about individuals' socio-demographics and psychological measures, could improve predictions of donation behavior. Therefore, the most important practical implication of the mediation analysis is that it might be relevant for address providers to collect information about empathic concern as well as about personal distress. When such a provider sells a household list to a charity, the address provider can use personality information to come up with a more effective household list. However, the distinction between the decision to donate and the donation amount is crucial. More specifically, people with a high score on empathic concern are more likely to make a donation in the next period but this does not imply that these people will be more generous toward the charity of interest.

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8 APPENDIX

Interpersonal Reactivity Index (Davis, 1983)

The following statements inquire about your thoughts and feelings in a variety of situations.

For each item, indicate how well it describes you by choosing the appropriate letter on the scale at the top of the page: A, B, C, D, or E. When you have decided on your answer, fill in the letter next to the item number. **READ EACH ITEM CAREFULLY BEFORE RESPONDING.** Answer as honestly as you can. Thank you.

ANSWER SCALE:

A	B	C	D	E
DOES NOT				DESCRIBES
DESCRIBE ME				VERY
ME WELL				WELL

1. I often have tender, concerned feelings for people less fortunate than me. (EC)
2. Sometimes I don't feel very sorry for other people when they are having problems. (EC) (-)
3. In emergency situations, I feel apprehensive and ill-at-ease. (PD)
4. When I see someone being taken advantage of, I feel kind of protective toward them. (EC)
5. I sometimes feel helpless when I am in the middle of a very emotional situation. (PD)
6. When I see someone get hurt, I tend to remain calm. (PD) (-)
7. Other people's misfortunes do not usually disturb me a great deal. (EC) (-)
8. Being in a tense emotional situation scares me. (PD)
9. When I see someone being treated unfairly, I sometimes don't feel very much pity for them. (EC) (-)
10. I am usually pretty effective in dealing with emergencies. (PD) (-)
11. I am often quite touched by things that I see happen. (EC)

12. I would describe myself as a pretty soft-hearted person. (EC)

13. I tend to lose control during emergencies. (PD)

14. When I see someone who badly needs help in an emergency, I go to pieces. (PD)

NOTE:(-) denotes item to be scored in reverse fashion

EC = empathic concern scale

PD = personal distress scale

Factor loadings Study 1

	EC	PD
1	.608	
2	.596	
3	.521	
4	.644	
5	.651	
6	.509	
7		.698
8		.715
9		.687
10		.603
11		.505

Factor loadings Study 2

	EC	PD
1	.744	
2	.674	
3	.636	
4	.689	
5	.567	
6	.510	
7		.755
8		.762
9		.793
10		.782
11		.575

**CHAPTER 5 : ASSESSING THE NEGATIVE
IMPACT OF COMPETITION IN
DIRECT MAIL FUNDRAISING**

CHAPTER V:

**ASSESSING THE NEGATIVE IMPACT OF COMPETITION IN DIRECT
MAIL FUNDRAISING**

ABSTRACT

Mainly because of a lack of the necessary data, the direct marketing literature has ignored the effects of messages from competing companies on individual response behavior. In this study, we investigate this issue by considering list exchange in fundraising. It remains unclear whether exchanging an address/donor could also hurt the loyalty of the donor with the initial mother charity. We designed a field experiment (N=72809) in which we controlled the competition between 24 European charities during ten months at an individual level. We operationalized competition through manipulating the exchange of household lists. The results demonstrate that all charities are hurt by competition. However, the impact of competition differs across charities. Specifically, charities with a higher brand equity are better protected from competition than lower brand equity charities.

1 INTRODUCTION

Companies increasingly recognize the relevance of collecting detailed information about interactions with their individual customers. This information is often at the basis of the firm's customer relationship management (CRM) initiatives. Although the obvious benefit of this wealth on internal information, the lack of consumer data outside the firm is a primary barrier to CRM (Bell et al., 2002). Consequently, interfirm competition has largely remained untouched in current CRM literature. In support of this outward view in CRM, Du, Kamakura, and Mela (2007) developed an approach to estimate the focal firm's share of the customer's total wallet. Recently, Musalem and Joshi (2009) also addressed this gap by investigating strategic CRM decisions for acquisition and retention in a competitive context. Their results clearly show that firms who ignore their competitive environment may take suboptimal decisions related to customer development initiatives. The current study aims to investigate this issue more in depth by considering the competitive effects of direct mail campaigns.

Research on response behavior to direct mail campaigns, traditionally focuses on a single company (Campbell et al., 2001). In a context of multiple firms sending multiple solicitations, interference is plausible. As a result, response to a given solicitation may be affected by previously received competing messages (Greyser, 1973). Consequently, mainly because of a lack of the necessary data, the direct marketing literature has ignored the effects of messages from competing companies on individual response behavior. Recently, the study of van Diepen, Donkers, and Franses (2009b) addressed some of these shortcomings by empirically studying dynamic competitive interactions of charitable direct mailings. These authors investigated competition concerning retention campaigns of a limited number of organizations. As Yoo and Mandhachitara (2003) showed, brand-related characteristics are important to assess the impact of competitive interference on sales. In particular, it seems that stronger, well-known brands are better protected from competitive ad interference than less familiar brands (Kent & Allen, 1994). Hence, in competition, the development of a strong brand, and thus brand equity, is crucial in resisting aggressive competitors (Aaker, 1991). However, to our knowledge, none of the previous studies empirically investigated competition by explicitly controlling exposure to a wide range of competing brands in an acquisition context. Therefore, our study seeks to bridge an important gap in the existing advertising literature by controlling competition pressure for more than 20 brands at an individual rather than an aggregated level.

One of the major sectors using direct mail is the charity sector (Francis & Holland, 1999). For charities, direct mail remains the most successful medium to raise individual donations (Direct Marketing Association, 2010). This precious medium is not only used for campaigns toward active and lapsed donors but it is also used to recruit new donors. In this context, charities often exchange their household lists with each other to acquire new donors. List exchange is closely related to competition because by exchanging, the level of competition increases since donors receive more calls for help from external charities. This exchange implicates a ‘flow of gain’ on the one hand and a ‘flow of loss’ on the other hand. For charities, this exchange has two main advantages. First, while renting addresses is highly expensive, exchanging addresses avoids “out-of-pocket” costs. Consequently, this common practice lowers the acquisition cost. Second, the fact that the charity receives a list of households who donated in the past, might indicate that these households are quite sensitive to fundraising appeals. However, next to these evident benefits related to this flow of gain, it remains unclear whether exchanging addresses could also hurt the loyalty of the donor to the initial ‘mother’ charity. This question relates to the competitive effects of giving your addresses away and whether this may lead to a loss of missed funds. In concrete, when a mother charity gives an address to an external charity, that donor will receive a recruitment campaign of the external charity. Moreover, once a donor responds to the recruitment, that donor will also receive further retention solicitations from the new charity. Consequently, the mother charity takes the risk of an increase in the level of competition and for the mother charity, it is extremely relevant to understand the consequences of giving away addresses on the donation behavior of its initial donors. In other words, for these mother charities it might be interesting to discern whether external charities steal their funds. Hence, this study aims to provide advice for fundraising managers on whether to protect their household list or swap it with other charities. Besides answering this question, we also identify specific profiles of mother charities that are most sensitive to these competitive effects. More specifically, we investigate whether a higher brand equity might help to protect charitable brands from competition. Note that the setting of list exchange provides us a unique opportunity to investigate the broader scope of competitive advertising interference. Hence, the implications of the current study are not only important for charities exchanging their addresses. The results also contribute to the existing literature on competition in direct mail.

In this study, we investigate the competitive effects of direct mail in a charitable fundraising setting because of the following reasons. On the one hand, because the practice of exchanging

addresses is more common in nonprofit than for profit, this exchange provides a unique opportunity to investigate competitive effects. On the other hand, the charity sector is one of the major sectors that heavily employs direct mail (Francis & Holland, 1999) and therefore, potential donors often receive several mailings. Consequently, studying competition is highly important in this sector and this competition between charities mainly operates through fundraising activities (Smillie, 1995) in which direct mail plays a crucial role. There are two different views on the implications of competition in fundraising. The first stream refers to negative effects meaning that competition may lead to an excessive level of fundraising and that fundraising efforts may become ruthless (De Waal, 1997). In contrast, the “Law of the Hype” (la loi du tapage) is also applicable to fundraising indicating that more media attention leads to more private donations (Kouchner, 1991). Consequently, the “Law of the Hype” refers to positive effects of competition indicating that more exposure works. In sum, in the current study, competition has thus been generated by the list exchange behavior.

This paper reports empirical research on list exchange in fundraising. To investigate these issues, we set up a field experiment to create controlled variation in the mailing pressure of recruitment mailings. We created a unique data set by merging the databases of 24 European charities. This combination results in household level data on solicitations (i.e., all the direct mails that were sent to each potential donor) and purchases (i.e., all the donations of each donor) of each household over 24 charities. Our study addresses an important gap in existing advertising literature. The main contribution of this study is absolutely the investigation of competitive interference based on a unique dataset resulting from a large scale field experiment. In particular, we controlled and randomized competitive exposure across a wide range of 24 different charitable brands during ten months. Afterwards, we measured the effective donation behavior for each particular donor across multiple charities during the experimental period. A key strength is thus that we measured competition pressure at an individual level rather than an aggregated level. The results indicate that the impact of this competitive exposure differs across the individual mother charities and that brand equity is a valuable explanation for the obtained results. In addition, our study explores the implications of list exchange on the donor’s share and size of wallet.

The remainder of this article proceeds as follows. The next section provides the theoretical background starting by a discussion of the relevant literature on competition in advertising and the formulation of specific hypotheses on the effects of competitive interference on the

incomes of an existing player in the market. Specifically, we hypothesize that competition negatively affects revenues toward the existing player. However, we expect a differential influence of competition on the revenues depending on brand strength. In particular, we hypothesize that stronger brands are less affected by competition than weaker brands. The second part in the theoretical background takes an industrial organizational perspective on competition in the marketplace and the charitable market in particular. In this part, we also refer to the donor's share and size of wallet. The third section of this paper explains the experimental design of our study and the fourth and fifth section present results from a controlled field experiment testing the hypotheses. Next, the conclusions of our study are framed in the extant literature on competition. In addition, we outline the limitations and suggest topics for further research. Finally, implications for fundraising managers with respect to the exchange of their addresses are discussed.

2 BACKGROUND

2.1 HOW COMPETITION INFLUENCES REVENUES OF AN EXISTING PLAYER

The main issue of this paper involves the consequences of exchanging addresses on loyalty of initial donors. In other words, we want to investigate whether charitable direct mail of external charities has an effect on donation behavior toward the focal mother charity. Competition in direct mail is thus the crucial scope of this paper. However, even though most academics would agree that studying competitive effects is of vital importance, previous research on response behavior on direct mail typically investigated messages sent by a single direct mail organization. The reason for this lack of studies considering multiple companies is the absence of data that considers solicitation and purchase history of a company and its competitors. This difficulty has often been addressed as a shortcoming or suggestion for further studies (e.g., Gönül & Shi, 1998; Keller, 1991). Only recently, van Diepen et al. (2009b) empirically investigated these competitive interactions among multiple direct mail organizations.

Although the charity sector is highly relevant for the direct mail sector, it is necessary to take into account the differences between nonprofit and for-profit direct mails. Charitable direct mail induces stronger feelings than for-profit direct mails (Francis & Holland, 1999) and whereas individuals do not like to receive fundraising solicitations (Diamond & Noble, 2001), irritation is plausible. Van Diepen et al. (2009a) empirically investigated this issue and found

that charitable direct mails lead to irritation, but that this irritation does not affect donation behavior. As Rotschild (1979) describes, nonprofit direct mails have no clear immediate personal benefit for potential donors and instead, the persuasion results from obligation and moral standards. Literature on charitable giving, often proposes guilt as a relevant driver (Andreoni, 1990). Not responding to charitable direct mails may invoke feelings of guilt and therefore, an increase in non-response may raise the feelings of guilt leading to a higher propensity to donate. Moreover, competing messages may even intensify this guilt-buildup.

Given the deficiency of studies on competition in direct mail, we may borrow from the competition in advertising in general. Therefore, in this section, we provide an overall discussion of the relevant literature on advertising interference. First of all, it might be of relevance to consider studies examining the advertising interference of different messages sent by a single firm. The common finding of these studies is that the shorter the timing between two mailings of the same organization, the more likely it becomes that cannibalization occurs between both mailings (Campbell et al., 2001; van Diepen et al., 2009b). Moreover, a company that sends too much mailings can experience a drop in revenues due to a drop out of its best customers (Simester et al., 2009). These findings show harmful effects of too much advertising by a single organization. When considering more than one firm, competitive advertising interference refers to the commercial clutter that is caused by the advertisements of competing brands around the same time and place. Therefore, it is also called ‘competitive clutter’. Until now, most studies on competitive interference were conducted in the lab by focusing mainly on recall (e.g., Burke & Srull, 1988), recognition and brand evaluation (e.g., Keller, 1991) rather than on sales. Recently, this shortcoming was acknowledged and some researchers started to investigate the crucial effect of competitive clutter on actual buying (Yoo & Mandhachitara, 2003; Danaher, Bonfrer, & Dhar, 2008) and donation behavior (van Diepen et al., 2009b). Previous studies found mixed evidence related to the possible effects of competitive interference. While a first stream involves harmful effects, a second stream is related to positive effects of competing messages. The first stream is most widely accepted. Several reasons for the negative effect of competitive interference on the effectiveness of marketing actions have been discussed (Unnava & Sirdeshmukh 1994; D’Souza & Rao, 1995; Burke & Srull, 1988; Keller, 1991; Bagozzi & Silk, 1983). First, an initial message from the focal company can be forgotten and thus unlearned because of additional information that is encoded by advertising of competing companies. This is called ‘additional learning’ (McGeoch, 1932). Furthermore, advertising clutter theory (Elliott &

Speck, 1998) indicates that an increase in advertising frequencies increases irritation and leads to market shrinkage. Although findings for these negative effects were for long time based on laboratory studies, Danaher et al. (2008) recently provided empirical evidence for previous results by showing that sales of a focal company are negatively affected by competitive television advertising interference. The second stream emerged more recently and involves the beneficial effect of competitive interference under certain conditions. These positive effects are mainly attributed to an increase in awareness. In commercial advertising, Jewell and Unnava (2003) found that competitive interference could help to forget previously advertised attributes when the focal brand wants to promote new or modified attributes. In addition, in a competitive ad context, Lee and Lee (2007) investigated alignable versus nonalignable attributes. Alignable attributes¹⁵ are corresponding features, but different from each other in a given dimension (e.g., '18-inch cleaning path' vs. '15-inch cleaning path'), whereas nonalignable attributes are aspects of an object that have no correspondence with the other (e.g. 'furniture bumpers all around' vs. 'multiple height adjustment'). Lee and Lee (2007) showed that stressing unique, nonalignable attributes is beneficial as long as they are perceived as novel or innovative. For an existing brand, it is important to reduce ambiguity by stressing on alignable attributes rather than nonalignable characteristics because alignable attributes are resistant to interference from the competitive context. In conjunction with this, Prins and Verhoef (2007) also demonstrated that, for new products, competitive interference stimulates awareness leading to sales increase. In a charitable context, van Diepen et al. (2009b) also found that competition is reinforcing and that, in a short run, direct mailings are complements. According to the authors, an explanation for this effect might be that competitive mailings induce guilt resulting in a higher propensity to donate. Nevertheless, they conclude that competition reinforces donation behavior as long as the number of competitive mailings is rather small because larger numbers of competitive mailings have a negative effect, suggesting as irritation.

In sum, the effect of competitive interference on advertising effectiveness is not straightforward. It seems that, at first glance, advertising of competitors might decrease the sales of a focal company. However, under certain circumstances, competitive interference may lead to an increase in sales. These positive effects are often found toward new players or existing players with modified products. In our setting, we want to investigate the effect of

¹⁵ Lee and Lee provides an example of a vacuum cleaner.

competition on existing brands by assuming that the brands remain fixed rather than on new or modified brands. Therefore, we expect rather negative effects of competition on the sales of an existing player rather than positive effects. More specifically, given the setting of charitable direct mail competition and in particular the context of exchanging addresses, we hypothesize that an increased level of competition through direct mail will negatively affect the incomes of existing charities. In other words, the more exchange and thus the more recruitment campaigns a donor receives, the less loyal the donor will be toward his/her initial charity. Consequently, we formulate our first hypothesis as follows:

H1: Increased competitive direct mail interference will negatively affect the loyalty of donors of existing charities.

In addition, the amplitude of the effects may differ across different brands. Yoo and Mandhachitara (2003) recognized a rather complicated and differential influence based on the strength of the brand and conceptualize four types of advertising effects on sales of a focal brand in a competitive setting. The first competitive situation is ‘zero-sum competition’ involving that the gain of an advertiser is a loss for its competitor. The zero-sum competition is most likely to occur in mature product categories in which the market is not growing. Cheng et al. (2009) refer to this as ‘combative advertising’ leading to indifferent customers. ‘Advertiser’s advantage’ is the second type meaning that the advertiser’s advertising reduces the competitor’s sales and that competitor’s advertising increases the advertiser’s sales. This asymmetric rivalry is more likely to occur when the advertiser has a stronger brand than its competitor. The opposite situation is then ‘competitor’s advantage’ in which the focal firm has the weakest brand. Both effects of ‘advertiser’s advantage’ and ‘competitors’ advantage’ might be related to the findings of Laroche, Cleveland, and Maravelakis (2006). These authors found that beneficial effects of competition are more likely for high-share brands. For low-share brands, the presence of directly competing high-share brand advertisements reduces beneficial effects of repetition on brand recall. The last competitive situation described by Yoo and Mandhachitara (2003) is ‘symbiotic competition’ in which advertising of both companies reinforce each other resulting in market expansion. In sum, these authors showed that brand-related characteristics (i.e., the strength) are important to assess the impact of competitive interference on sales. The strength of a brand is often expressed in terms of brand equity: the brand equity is a multidimensional concept that consists of brand loyalty, brand awareness, perceived quality, brand associations and other proprietary assets (Aaker, 1991).

In competition, the development of a strong brand, and thus brand equity, is crucial in resisting aggressive competitors (Aaker, 1991). Familiar brands are better protected from competitive ad interference. In their study on advertising claim recall after exposure to competitive advertising, Kent and Allen (1994) found that competitive interference only had little effect on recall for well-known brands. Moreover, respondents recalled new product information better for familiar brands. Therefore, we formulate our second hypothesis as follows:

H2: Charitable brands with a higher brand equity are less negatively affected by competitive direct mails in comparison to charitable brands with a lower brand equity.

As we mentioned before, the study of van Diepen et al. (2009b) is extremely relevant in research on competitive effects in direct mail fundraising because these authors highlight the importance of the empirical investigation of this matter. Our study intends to explore this issue more in depth. More specifically, we investigate the effects of increased direct mail pressure by explicitly controlling the exposure to different charitable brands. For this, we set up a controlled natural field experiment to introduce variance in the mailing pressure. Furthermore, we investigate the competition between 24 different players with different sizes in different fields instead of considering a limited number of health charities. Another difference is that, whereas van Diepen et al. (2009b) studied competition only within retention campaigns toward active donors, our focus is on competition originated from acquisition campaigns.

2.2 HOW COMPETITION INFLUENCES THE SHARE/SIZE OF WALLET

Aldashev and Verdier (2010) took an industrial organizational perspective and investigated competition through fundraising between horizontally differentiated NGO's. They showed that when the market size remains fixed, increased competition may result in excessive fundraising. However, fundraising levels decrease when the market size is endogenous and NGO's cooperate in attracting new donors. They conclude that empirical research is needed to find out which model is most appropriate and indicate that the results of van Diepen et al. (2009b) suggest that in the short run, the endogenous market size is most applicable and that in the long run, donations are substitutes resulting in a fixed market size. In this paper, we aim to investigate the impact of new charities on donation behavior toward existing mother charities. One of the basic questions we seek to answer is whether the size of wallet grows as other charities are competing for donations. To frame our research topic in a broader

theoretical background, we might refer to two relevant effects as described in industrial organization literature (Tirole, 1988). While the first effect refers to ‘business stealing’, the second effect involves ‘industrial growth’.

The former effect, business stealing or ‘trade diversion’, has a destructive character. This effect refers to the fact that a firm can steal consumers from other firms by entering the market or by introducing a new product. Consequently, rivals lose income from these diverted consumers. The stealing of the rival’s customers indicates that there are too much new entries leading to excessive advertising. In a charitable context, business stealing involves thus the impact of the new charity entry (or existing charities recruiting new donors) on incumbent rival charities’ revenues. In concrete, donors may divide their donations across different charities, may even completely switch to the new charity or may just be irritated and give less. The outcome of business stealing involves thus a decrease in share of wallet and thus a loss for the focal firm.

Next to business stealing, the second consequence of competition is rather beneficial and refers to ‘industrial growth’. More specifically, the new entry might increase total revenues in the whole industry. There are two causes for industrial growth. On the one hand, this raise might originate from ‘market expansion’ by attracting new customers because of more differentiation. In this study we do not focus on market expansion because we investigate donation behavior of previous donors. On the other hand, revenues might boost through an ‘increase in customer spending’ meaning that the new entry does not hurt the rival firms but instead increases the overall spending. Concerning competition between charities, this latter effect indicates that by an increase in competition, donors will donate more rather than divide their donations across different charities (or even switching to new charities). In other words, the size of wallet increases.

In sum, the vital question remains thus whether competition splits up the pie of the total funds that are raised (i.e., ‘business stealing’/ ‘decrease in share of wallet’) or increase the total funds (i.e., ‘industrial growth’/ ‘increase in size of wallet’) or leads to both.

3 EXPERIMENTAL DESIGN

The overall purpose of this study is to investigate the impact of competition on the loyalty of donors of existing players as well as its impact on the donor wallet. The common practice of list exchange provide us a unique opportunity to investigate this issue in reality. To address

our hypotheses, we designed a field experiment (N=72809) in which we controlled the exchange of household lists between 24 European charities. Note that we consider 16 mother charities that opened up their lists for each other. During the experiment, eight new charities entered the market and used the household list of the existing mother charities to acquire donors. Evidently, those new players had no donors yet so they could only gain. Normally, when those charities are exchanging their donor lists, all active addresses are swapped. We operationalize competition through manipulating the external mailing pressure (i.e., recruitments). Therefore, this experiment enabled us to introduce exogenous variation in the mailing pressure of recruitments to investigate the impact of external mailing pressure on donation behavior. Moreover, our study is a natural field experiment because the donors were not aware of participating in an experiment.

To investigate the consequences of the exchange of addresses, the experimental period did not involve a short term period (e.g., one week) but rather a longer period of ten months. A total of 48 recruitment campaigns was sent out by the 24 charities. All experimental mailings were sent out between the first of March 2009 and the 31st of December 2009. In this period we manipulated the mailing pressure regarding recruitments for each active donor in the pool. Based on the design, we explicitly selected the individuals who were solicited for each recruitment.

Table 10: Experimental design

Condition	Recruitment Pressure (March–Dec '09)
1	0
2	1-3
3	4-6
4	7-9
5	10-12
6	13-15
7	16-18
8	19-21
9	22-24

Hence, the experimental manipulation consists of sending a number of experimental recruitment mailings in addition to the charities' regular retention campaigns. The control group consists of individuals who did not receive any recruitment during the experimental

period. Consequently, the addresses of this group were not exchanged and these donors only received retention campaigns of the charities to which they have donated before the experimental period. In the treatment group, we systematically varied the number of sent recruitments, going from a very low intensity (i.e., one to three recruitments) to very high mailing pressure (i.e., 22 to 24 recruitments). Because of practical reasons (i.e., during the experiment, campaigns were cancelled or new campaigns were introduced), we considered ranges of number of mailings rather than an exact numbers. Moreover, it was impossible to increase the competitive pressure (e.g., to send someone all 48 recruiting campaigns) because of the fact that an individual already donated to at least one charity (e.g., it is not possible to send donors from charity X an acquisition campaign of charity X). Figure 4 gives an overview of the number of donors in the experiment and the competitive mailing pressure.

Figure 4: Number of donors and competitive mailing pressure



The sample in the experiment was restricted to active donors meaning that we only considered individuals who donated at least once in the past 30 months for at least one charity in the pool. The mother charity reflects thus the charity in which the donor is active before the start of the experiment. Hence, in our study, individuals who are active toward three charities have three different mother charities. We excluded donors with a permanent order because their behaviors are very specific and their donations are independent of solicitation strategy. Before we randomly assigned the individuals to one of the nine conditions, we assigned each individual to a stratum. The stratum reflected the activity of the donor toward all 16 mother

charities during the last 30 months (e.g., 1000000010000000). Then, all participants within each stratum were randomly spread out across the nine conditions. This stratified randomization allowed us to have comparable groups in terms of their original activity toward the mother charities in the experiment.

4 THE CONSEQUENCES OF COMPETITION ON LOYALTY OF THE INITIAL DONORS OF THE MOTHER CHARITY

4.1 THE MODEL

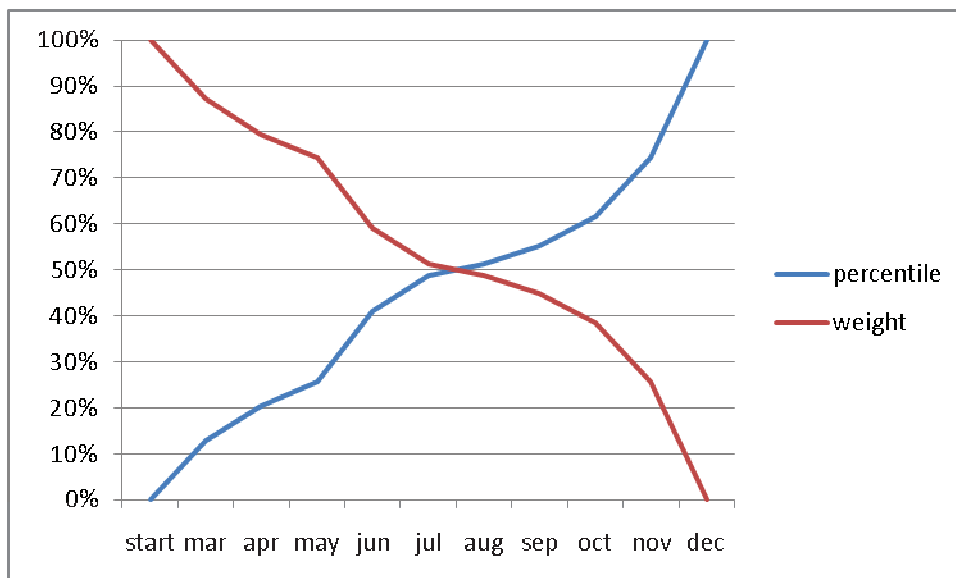
Because we want to know whether active donors choose to remain loyal toward their mother charity or not, we estimate a logistic regression. This analysis results in a maximum likelihood function that is maximized to achieve appropriate fit to the data (Allison, 1999). We model individual i 's $\{i=1,2,\dots,N\}$ loyalty decision for each mother charity m $\{m=1,2,\dots,M\}$. Let y_{im} be a binary variable reflecting whether the donor i remains loyal or not toward the mother charity m during the experimental period. More specifically, as soon as the donor donates to the mother charity, we consider this individual as a loyal donor. The probability to remain loyal to the mother charity is estimated as follows:

$$P(y_{im} = 1|\mathbf{x}) = \frac{1}{1 + \exp^{-(w_0 + \mathbf{w}\mathbf{x})}}$$

with \mathbf{x} as an n -dimensional input vector reflecting the independent variables, \mathbf{w} the parameter vector and w_0 the intercept. Regarding the independent variables, direct mail response behavior is traditionally modeled as a function of RFM-variables by considering the distinction between solicitation and purchase history. Solicitation history involves the communication initiatives toward the individuals taken from the company/charity, and purchase history involves past behavior of individuals receiving direct mail campaigns (Elsner, Krafft, and Huchzermeier, 2004). Consequently, the explanatory variables involved past donation behavior toward the mother charity, mother mailing pressure during the experimental period and external mailing pressure. The first two sets are calculated based on information that is stored in the mother charities' database and included the subsequent variables. For each donor-mother relationship, we calculated the following RFM variables: recency (i.e., number of days elapsed since last donation divided by 365), squared recency, the natural logarithm of the number of donations and the natural logarithm of the average

donation amount. We included the quadratic term of recency because previous research demonstrated that an inverted U-shaped relationship may exist between recency and probability of purchase (Van den Poel & Buckinx, 2005). This means that people with a very low recency and people with a very high recency will be less likely to purchase than people with an intermediate value of recency. The logarithmic transformation was in line with Reingen (1982) to reduce the skewness in the data concerning the gift sizes. Next to these donation history variables, we also calculated the mailing pressure of the mother charity for each individual during the experimental period. An important remark here is that campaigns that were sent during the beginning of the experimental period should reflect a higher mailing pressure than campaigns sent at the end of the experimental period. To account for this, we weighted the campaigns that were sent by relating the drop dates to the incomes of the mother charity (cfr. Figure 5). The mother mailing pressure is consequently a weighted sum of the different retention campaigns. Finally, to account for the fact that loyalty may differ across the mother charities, we included mother specific intercepts. Beside this, for the external mailing pressure, we constructed 16 mother-specific variables reflecting the external mailing pressure. The reason that we include 16 separate variables for external mailing pressure rather than one general variable is that this approach enables us to investigate the effect of external mailing pressure for each separate mother charity. Consequently, we would be able to explore whether some charities are more or less affected by recruitments. In line with the approach concerning mother mailing pressure, the external mailing pressure is also a weighted sum of the different recruitment campaigns. Figure 5 gives an example.

Figure 5: weight - procedure



The graph above provides an example of the weighting procedure. The blue line indicates the percentage of revenues toward a specific charity. The red line reflects the weight that we assigned to a specific campaign (i.e., 100-percentile). Suppose that an individual receives a recruitment in April, then this recruitment will receive a weight of .79. Suppose that an individual receives a experimental recruitment in November, this campaign will have a smaller weigh (i.e., .26) because this campaign can only affect donation behavior for one more month in the experimental period.

4.2 RESULTS

The logistic regression results in a significant model ($-2LL = 330962.81$, $p < .001$). The parameter estimates based on the mother charity confirm previous research by showing a positive impact of both frequency ($\beta_{\text{frequency}} = .60$, $p < .001$) and monetary value ($\beta_{\text{monetary value}} = .06$, $p < .001$) on propensity to remain loyal to the mother charity. The relationship with recency and loyalty is U-shaped ($\beta_{\text{recency}} = -.47$, $p < .001$; $\beta_{\text{recency_sq}} = .03$, $p < .001$), indicating that donors with a low number of days since last donation as well as donors with a high number of days since last donation are more likely to donate. At first glance, this might be surprising. However, all donors in the analyses were active donors in general, meaning that they were active for at least one of the 16 mother charities. Consequently, the analysis did not include generally lapsed donors (i.e., donors who quit the 16 mother charities) but the table of analysis could thus also include donors with a high number of days since last donation for one charity that are still active toward another charity. These donors with a high number of days since last donation are thus not completely lapsed. Regarding the mother mailing pressure, we found a significant positive effect ($\beta_{\text{mother mailing}} = .47$, $p < .001$) indicating that the more solicited from the mother charity, the more likely to remain loyal.

Table 11: Parameter estimates and charity attributes

Charity	Individual Intercepts	Competition	Age	Brand Equity	Number of Donors (LOG)	Total Raised (LOG)
1	-.779***	-.007	6,00	4,12	11,20	16,20
2	.102	-.009*	5,33	5,74	10,92	16,03
3	-.291***	-.008*	4,67	5,09	10,95	15,92
4	-1.40***	-.040***	5,00	5,80	10,74	20,03
5		-.051***	4,33	4,89	9,62	15,20
6	-.549***	-.025***	4,67	4,91	10,85	15,78
7	-.841***	-.019***	4,67	5,23	10,98	16,27
8	-.934***	-.019**	4,00	4,80	10,45	15,62
9	-.338***	-.030***	3,33	3,67	10,58	15,37
10	.400***	-.142***	2,33	3,87	9,40	13,51
11	-.630***	-.050***	3,33	5,13	10,75	15,95
12	-.481***	-.044***	6,00	3,53	10,13	15,28
13	-.807***	-.015**	4,67	3,98	10,52	15,43
14	-.344***	-.047***	5,00	5,20	10,84	15,38
15	.165*	-.100***	2,67	5,02	9,87	14,20
16	-.432***	-.202***	1,67	2,77	9,11	13,19

* $p < .05$.

** $p < .01$.

*** $p < .001$.

Inspection of the mother specific intercepts (cf. Table 11) revealed that the size of the intercept is lower for bigger charities. More specifically, based on two separate linear regressions, we investigated the impact of the total funds raised as well as the number of donors on the size of the intercept. The results demonstrate that charities that raise more money ($\beta_{\text{total raised}} = -.712, p < .005$) and charities with a higher number of donors ($\beta_{\text{number donors}} = -.433, p = .10$) have a lower intercept. This means that for identical RFM values, smaller charities might do a better job than bigger charities. This is not surprising given the well-known fact in the industry that the more customers/donors you have in your database, the more difficult it is to keep those individuals loyal. Bigger charities have to target a wide range of donors, and they might be hard to keep loyal. Very small charities, however, can first concentrate and attract donors who are very sensitive to the cause, and then expand.

In general, the analysis reveals that all mother charities are hurt by recruitments of external charities. Table 11 shows that the parameter estimates for competition, or external mailing

pressure, are all negative and significant (one is only marginally significant). This confirms our first hypothesis that is based on preceding studies on harmful effects of competitive advertising interference. However, the impact of being solicited from external charities differs across charities and it seems that some charities are better protected against new entries on the market than others. In particular, the most negatively affected charity is almost 30 times more hurt in comparison with the charity that is most resistant.

To explain this effect, we rely on the literature on brand equity indicating that brands with a higher brand equity are more resistant for competitors. This implicates that mother charities with a higher brand equity would be less hurt than lower equity brands. To investigate this issue we assigned some qualifiers to each of the 16 charities. More specifically, we asked three experts to rate each mother charity on Aaker's ten dimensions of brand equity (Keller, 2008, p. 424) on a 7-point Likert scale (cfr., Appendix). On the one hand, the reliability between the coders was verified through the use of Cronbach's alpha, a measure of internal consistency. This analysis resulted in a Cronbach's alpha of .74 indicating that, in general, the three coders were consistent¹⁶. This was also confirmed by the interclass correlation coefficient ($r = .73$, $p < 0.001$). Consequently, to come to a unique score for each mother charity on each brand equity dimension, we averaged the three different codings. In a next step, we analyzed the internal consistency of the 10 dimensions of the brand equity scale. The brand equity scale contains items such as "This brand is different from other brands" and "In comparison with alternative brands, this brand is consistently high in quality". The scale was reliable with a Cronbach's alpha of .94. Hence, we averaged the 10 dimensions resulting in a brand equity score for each mother charity. Besides the brand equity score, we also included both the age and the size of each charity. This latter attribute was reflected in the total number of donors that ever donated as well as the total sum of money that was raised in the past. Next, based on a linear regression, we investigated the impact of each qualifier onto the parameter estimate of competition. The analyses reveal that all the qualifiers positively affected the amplitude of the effect of external mailing pressure. More specifically, we found that charitable brands with a higher brand equity ($\beta_{\text{brand equity}} = .572$, $p < .005$), charities who are existing for a longer period ($\beta_{\text{age}} = .803$, $p < .001$) and bigger charities in terms of number of donors ($\beta_{\text{number donors}} = .863$, $p < .001$) and revenues ($\beta_{\text{total raised}} = .615$, $p < .005$), are less negatively affected by external mailing pressure. Our second hypothesis is thus confirmed.

¹⁶ We checked on extreme ratings but in general, there were no extreme contradictory answers among the coders.

5 COMPETITION AND THE DONOR WALLET

Figure 6: Competition and the share/size of wallet

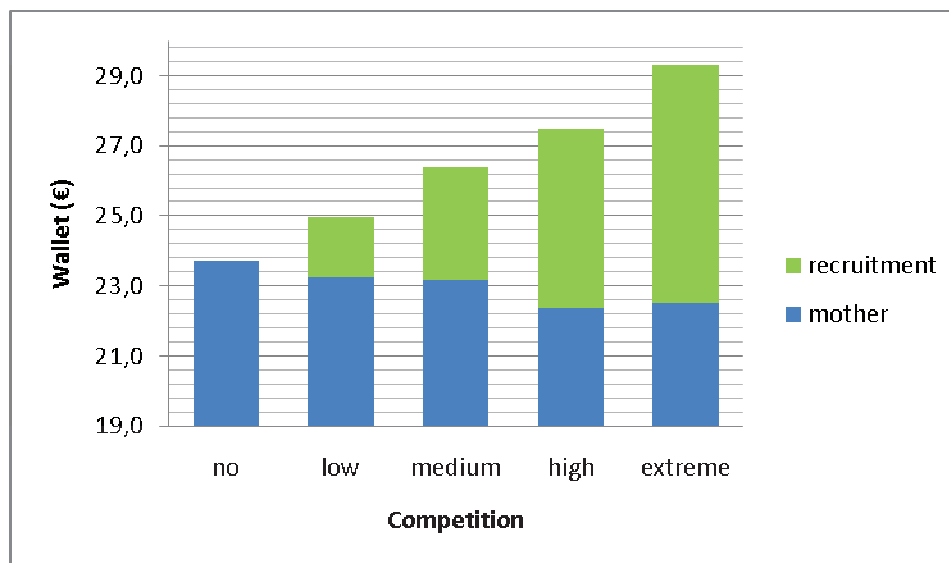


Figure 6 gives an overview of the donor's wallet for different levels of competition during the experimental period. The level of competition needs to be interpreted as follows: 'no' means that the donor did not receive a recruitment; 'low', 'medium', 'high' and 'extreme' correspond to respectively '1-6', '7-12', '13-18' and '19-24' recruitments. The total size of the donor's wallet is split up between the share of wallet concerning the mother charity (i.e., blue color) and the wallet concerning external new charities based on response on recruitments (i.e., green color). In general, based on a correlation analysis between the level of competition and the share of wallet, the graph shows that the share of wallet concerning mother charities decreases when the level of competition increases ($r = -0.82$). This downward trend is not surprising given our results concerning the harmful effects of competition on the decision to remain loyal toward the mother charity. However, the exchange is also an opportunity for the mother charity to acquire new donors. The upper part of the bar reflects the total size of wallet and the graph shows an upward trend indicating that the size of wallet raises by increased competition ($r = .97$). Note that this graph only considers donations (of existing and new donors) toward the 16 mother charities and that we exclude the incomes for the eight new charities. In sum, the results show that, although there is some decrease in share of wallet, increased competition involves an increase in size of the donor's wallet. Increased competition leads thus to a growth in the market rather than splitting up the pie.

6 DISCUSSION

The overall purpose of this study is to investigate competitive advertising effects in direct mail fundraising. The common practice of list exchange provides a unique opportunity to investigate this issue in reality. We set up a large-scale field experiment that controlled the exchange and thus exposure to competitive brands. We show that all charities are hurt by competition. This negative effect of competition confirms the results of most of the studies on competitive advertising interference. However, the stealing effect differs highly across charities. More specific, we demonstrate that stronger, well-established brands with a higher brand equity are less affected than brands with a lower brand equity. This was also what we expected. This study extends prior research on competition in the nonprofit market and in particular competition in direct mail advertising. In addition, regarding the donor wallet, it seems that the size of the wallet grows with higher levels of competition as a consequence of an increase in total spending.

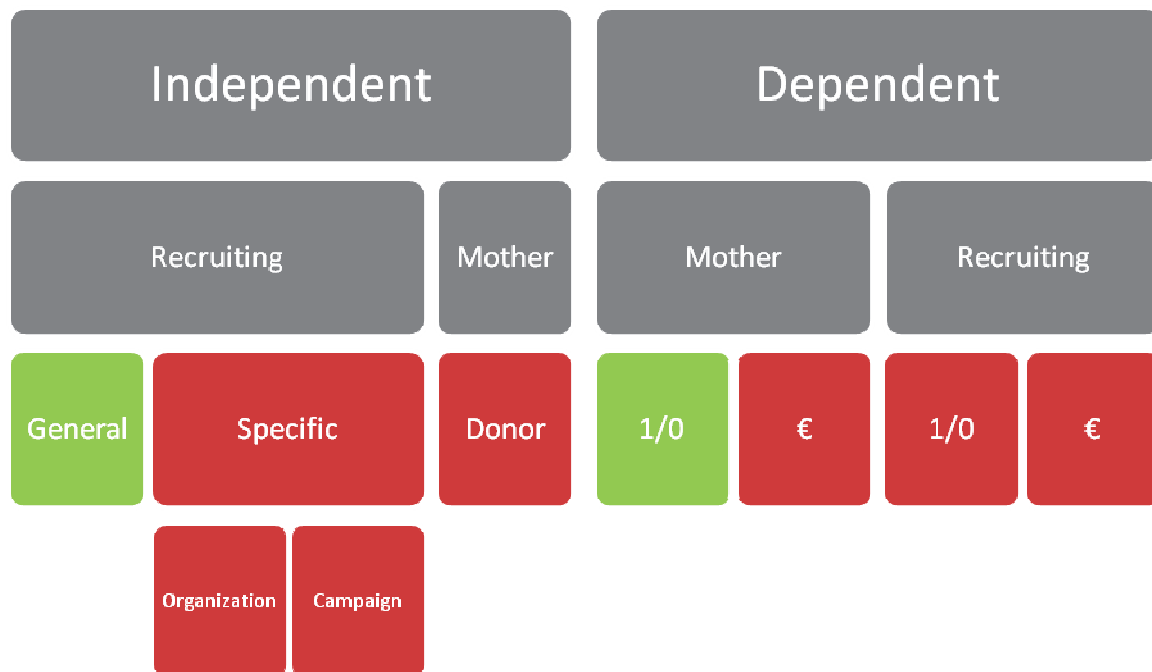
The findings offer practical implications for fundraising management on exchanging their household list. The good news is that the total sum of both streams of giving and receiving is positive. This means that the exchange of addresses increase total funds for the mother charity. Although the total sum is positive, this does not imply that the mother charity only gains. More specifically, we identified business stealing effects when competition, and thus exchange, increases. It is therefore important that fundraising managers bear in mind the harmful effect of the external mailing pressure on the loyalty of their existing donors. However, not all charities are equally affected. For big, well-known charities the threat is of a lower extent than for recently introduced charities with a rather low brand equity. Therefore, fundraisers of these smaller charities could be advised to better protect their donor list until they established a strong brand. An important remark here is that small charities have a lower number of donors and therefore a lower number of addresses to exchange. To obtain plenty new donors, simply exchanging is not sufficient for these charities. These organizations still need to acquire new addresses by renting rather than by exchanging.

Although we found an increase in the size of wallet per donor, it remains, however, an open question whether our results remain stable by investigating the real size of wallet since we only measured donation behavior across 23 charities. Our study contains thus a partial story and we cannot prove this since we have not the appropriate data for claiming this. Panel data would be more suitable for these kind of conclusions. In other words, even though we

considered 23 charities, an important limitation remains that this study did not capture all the competition in the market. Hence, although our field experiment prevented that some donors were omitted from external recruitments, those individuals may still experience exposure to other charitable brands. The fact that we only investigated partial competition in the market may implicate that some effects may be even stronger when considering all of the competition in fundraising. The second concern is that our findings should be evaluated for other contexts beyond fundraising. A third limitation is that, because of practical reasons, we were not able to control the dropdates of the campaigns.

7 FURTHER RESEARCH STEPS

Figure 7: Further research steps (green: current study; red: further steps)



Next to these limitations, we want to stress on the fact that the current study only investigated part of a bigger project. More specifically, we only considered loyalty toward the mother charity in terms of compliance toward appeals that were sent by the mother charity. However, our dataset contains much more information since we have completely access to the mailing and donation history of both mother and recruiting charities. Moreover, this information is available at an individual level and contains data before as well as during the experimental period. Therefore, given the potential and uniqueness of this dataset, we want to outline the opportunities for our further research steps. These opportunities are situated at the dependent as well as the independent measures and concern characteristics related to the mother charity,

recruiting charity as well as to the specific donor (cfr., Figure 7). First, considering the dependent measures, a first logical step when studying loyalty in direct mail fundraising is to investigate the decision to respond to a donation request. A subsequent step is definitely to explore the generosity of the donor and consequently to investigate how much a donor will donate toward his/her mother charity. We already demonstrated that, when competition increases, donors become less responsive toward mother charity campaigns. Further research needs to show the implications in terms of revenues by considering the amount of the donations. Second, also concerning the dependent measures, the current study only investigated the implications with respect to the mother charity. Therefore, an appropriate investigation of ‘competition in direct mail fundraising’, also needs to examine the implications for the competitor, or recruiting charity. In other words, further research needs to investigate response behavior toward recruitment campaigns in terms of compliance and generosity. This is highly relevant because a charity can be a mother charity for donor A whereas the same charity can be a recruiting charity for donor B. We already found that mother charities lose when competition increases. However, when recruiting, charities are able to gain as well. Moreover, since we found differences across charities, some charities might gain more than others and it could be that stronger brand equity brands are gaining more than charitable brands with a lower brand equity. Consequently, both streams of losing and gaining need to be inspected in a very detailed manner. In addition, an important issue here is looking at switching behavior, category spending as well as allocation between the mother and recruiting charity.

Third, taking into account the independent variables, the current study investigated competition by considering recruitment pressure in one general competition variable. Further research needs to differentiate between the different competitors at the organization level (i.e., brand equity, age, region, number of donors, etc.) as well as at the campaign level (i.e., urgency, envelope characteristics, subject of the campaign, gadget, etc.). We showed that competition in general negatively affect loyalty toward the mother charities. However, it could be that some competitors harm less than others. Moreover, concerning the “Law of the Hype”, competitors might even positively affect loyalty toward the mother charity. In this context, we argue for a clear distinction between completely new players and current players who are recruiting because new players in particular might increase awareness leading to intensified donation behavior. In addition, younger charities, or charities with a unique positioning might have a stronger impact on category spending. Beside characteristics at an

organization level, another opportunity for further research is to investigate the characteristics of the recruitment campaigns more in depth and to look for differences across the recruitment campaigns. We already performed a content analysis (cfr. Appendix) on the 48 recruitment campaigns to investigate outside as well as inside characteristics of the appeal. For example, we investigated the amount of urgency. In line with this, it could be interesting to analyze the dropdate of each specific campaign to examine the impact of seasonality. Moreover, based on external databases, it may be relevant to take into account the impact of mass media communication during the experimental period because previous research points to a synergy between direct marketing communication and mass marketing communication (e.g., Naik & Raman, 2003). In our further research steps, these specific characteristics (i.e., the content, dropdate, and mass media) need to be taken into account. Fourth, while we identified differences across the type of mother charities, further research needs to investigate whether some donors are more or less affected by competitive interference. Based on this latter analysis, we will be able to advice charities on which type of donors are more or less influenced by competition. In an exchange context, charities might have the impression that exchanging is more dangerous for the most loyal donors and assume that it is better to protect the best donors instead of less loyal donors. However, the reality can be the other way around and therefore, it could be that it is better for charities to swap the most loyal donors and highly protect the less loyal donors. Further research is required here to answer this question. To conclude on our further research steps, we believe that until now, we only captured part of the story of ‘competition in charitable fundraising’ and that our story will become more complicated when considering all data available. Moreover, in the current study, we investigated loyalty during the 10 experimental moths. Although we found that external recruitments hurt the loyalty toward the mother charity, it would be interesting to investigate whether our findings hold for the long term.

In addition, the methodology needs to be refined. For example, our weight-procedure needs to be improved by looking at drop of campaigns in terms of an impulse in which the impact manifests for only a certain period of time. In addition, examining possible inverted U-effects related to the competitive pressure may also be an interesting opportunity. In the current model, we have less individuals than cases and consequently, the cases are not independent. Likewise, the different drops of campaigns are not independent as well and taking into account the response on previous mailings during the experiment may also be interesting. Evidently, to capture all these particular aspects, a more advanced methodology is required. In

our opinion, this study needs to be evolved toward an extension of the study of van Diepen et al. (2009). These authors also considered the influence of competitive solicitations at an individual level. They measured an impact parameter (i.e., how much the competition hurts) as well as a decay parameter (i.e., how long the competitive effect lasts). In contrast, we intent to introduce a hierarchical model in which these impact and decay parameters are themselves function of other variables related to characteristics of the mother charity, the recruiting charity, the donor and the campaign.

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9 APPENDIX

Aaker’s Brand Equity Ten (7-Likert Scale)

1. If XX asks a bit more than another charity, I’m willing to pay this extra to remain an active donor of XX.
2. I would recommend XX to others.
3. In comparison with alternative brands, this brand is consistently high in quality.
4. In comparison with alternative brands, this brand is a leading brand on the market.
5. There is a reason to donate for this brand over others.
6. This brand has personality/is interesting.
7. This is a brand I would trust.

8. This brand is different from other brands.
9. I have heard of this brand.
10. Market Share

Content Analysis Recruitment Campaigns

GENERAL	mailingcode	Code	code of the mailing
-	language	N:=NL F=FR	
	cost_campaign	€	What is the price of the whole campaign (per solicitation)? (still needs to be collected)
-	date	date DD/MM/YYYY	date on mailing
ENVELOPE	front_address	no sender= 0 /address of a person= 1 / address of a charity= 2	
-	front_logo	0/1	logo charity?
-	front_slogan	0, U= urgent, G=gadget, A=Other	
-	front_Send	RS= red stamp, T= periodical	
-	back_sender	no sender= 0 /address of a person= 1 / address of a charity= 2	Is there a sender on the back of the envelope?
-	color	0/1	Is there color on the envelope?
PIECES	gadget	name	name of the gadget (very detailed)
-	cost_gadget	€	What's the price of the gadget? (still needs to be collected)
-	comm_gadget	7 Likert (1=not commercial at all, 7= very commercial)	To what extent is the gadget commercial? Or is there a clear link with the good cause (i.e., reflecting low scores)
-	number_pieces	number	Number of different elements in the envelope (letter, brochure, gadget ...)
	pages_total	number	number of pages of the whole mailing (including brochures, etc)
-	brochure	0/1	Is there a brochure with information about the specific charity?
CONTENT	Theme	A= animal, H= health, E= environment,P=Poverty, Edu=Education, FH=food/hunger,TH=therapy	What is the theme of the letter?
	Theme2	A= animal, H= health, E= environment,P=Poverty, Edu=Education, FH=food/hunger,TH=therapy	If there is more than one appropriate theme
	testimonial	7 Likert	To what extent does the letter contain a testimonial?
	price	€	Donation request
	price2	€	If there is more than one donation request
	threshold	€	Is there a big sum that has to be collected?

	number_pictures	number	The number of pictures
	picture	7 likert (1=negative, 7=positive)	Encode the first picture: is this rather negative/shocking or rather positive/happy...?
	name_mailing	number	How many times does the letter contain the family name of the prospect?
	personal_mailing	7 Likert	To what extent does the letter refer to the prospect
	pages_mailing	number	number of pages of the letter
	region	name	
	country	name	
	subject	CHI=children; CHA=mainly children; ADU=adults; ADC=mainly adults; ANI=animals; SEN=SENIORS, MOT=Mothers	Who is the main subject?
	subject_name	name	name of the main subject
	subject_gender	0=male 1=female	gender of the main subject
	subject_age	number	age of the main subject
	continuous_donation	0/1	is there a request for a permanent order?
	fiscal	0/1	Mention of fiscal advantage?
	handwritten_elements	0/1	Is there a handwritten text included?
	Expert	0= volunteer / 1= chair/ 2=expert,doctor, pilote /3=victim, 4=VIP	Who wrote the letter?
	numbers	7 Likert	To what extent does the letter contain numbers/statistics (of victims, etc.)
	perf_organiz	7 Likert	To what extent does the letter stress on the performance of the charity?
	spec_topic_a	name	specific topic
	spec_topic_b	name	
	spec_topic_c	name	
	spec_topic_d	name	
	urgent	0/1	is there a header 'URGENT'?
	Need	7 Likert	To what extent is the topic life-threatening?
	extra comments		Extra comments

CHAPTER 6 : DISCUSSION

CHAPTER VI:**DISCUSSION**

Charities generally store detailed information regarding donation and solicitation history of each individual donor. This wealth of data is stored in the charity's database. Charities can use this information to develop an individual relationship with their donors. Moreover, the majority of the charitable funds are raised through direct mail in which potential donors are asked for a donation. Because of the importance of direct mail and the availability of the data, this dissertation investigated how database marketing can improve direct mail fundraising. We provided new insights on two dimensions to improve direct mail fundraising. On the one hand, we demonstrated how the content of the solicitation can be optimized by tailoring the specific donation request to previous donation behavior of the donor. On the other hand, we provided some understanding regarding the target selection. In particular, we found that psychological measures of empathy are relevant to predict donation behavior over and above the traditional RFM-variables. Next, we investigated list exchange to acquire new donors and found that this strategy harms the loyalty toward the initial charity. We will now elaborate on these findings by summarizing each specific study. Afterwards, we provide a reflective view on the main conclusions and give some directions for future researchers in the field of direct mail fundraising.

1 SUMMARY

The first study clearly demonstrate an essential benefit of tailoring the donation request across three donor segments in terms of suggested donation amount (SDA) and of social comparison. By considering adaptation-level theory (Helson, 1964) and assimilation-contrast theory (Sherif, Taub, & Hovland, 1958), we inspected the latitude of individuals' range of acceptable donations. Taking into account previous donation behavior, we explored three types of personalized donation amounts and found that the appropriate level, in terms of response rate as well as donation size, depends on the stage in the donor lifecycle. More specifically, for acquisition and reactivation purposes, the most recent gift is most appropriate. In contrast, regarding active donors, suggesting the most recent gift may lead to suboptimal returns. The average donation is, however, most appropriate to increase response rate. This novel finding

extends previous research since an average SDA has not been considered to date. In addition, we have shown that this highly involved segment has a stronger internal reference amount than less highly involved donors because we have only found no effect of suggested donation level on gift size for active donors. Moreover, in contrast to previous research on social information, our study clearly distinguished the SDA from social comparison. Starting from social comparison theory (Festinger, 1954), a second issue we investigated was referring to other donors in the donation request. By considering social comparison as a compliance strategy, social comparison did affect response rate rather than donation size. However, the impact of social comparison varied across different donor segments. More specifically, we have demonstrated that social comparison is only an effective strategy for new donors rather than for active and lapsed donors. This was in line with our expectation that prospects experience more ambiguity and uncertainty compared to people who have donated before. For fundraising management, these results clearly show that current rules of thumb may be seriously flawed and that there is room for improvement. Based on previous donation behavior that is stored in the database of the charity, fundraisers can extract an appropriate amount to suggest, tailored to the individual donor. Moreover, our findings could be used as a starting point for further research into online interactive pricing mechanisms in which consumers have more control over the pricing process and the final price to pay (Chandran & Morwitz, 2005). Besides this, it is also important to refine the personalized donation amount by taking the zone of acceptable donations into account. Other reference amounts and other increases should be analyzed to further optimize this issue.

Next to personalized SDA, a second content-related strategy we investigated was a donation request signaling the total sum, or threshold, needed for a specific project. Mentioning a threshold may or may not come along with the announcement that some of the funds have already been raised (i.e., seed money). To our knowledge, this study is the first to demonstrate the effect of seed money with respect to the size of the threshold on charitable contributions across donor segments. We considered new as well as active donors and regarding the latter segment we distinguished between high and low fidelity donors. Taking the research of List and Lucking-Reiley (2002) and Rondeau and List (2008) on seed money as a starting point, we showed that the announcement of seed money, regardless of the threshold size, improves the effectiveness of fundraising appeals toward both acquisition campaigns and solicitations toward low fidelity donors. However, we revealed a novel qualification of the announcement of seed money in appeals targeted at the high fidelity segment. For this group, seed money is

only an efficient strategy when the threshold is high enough. We believe our findings could be explained by Louro et al.'s (2007) model of multiple-goal pursuit indicating the importance of the individuals' expectancy of success.

For practitioners, the study clearly shows the necessity of a differentiation in the communication strategy by considering past behavior of their donors. In particular, when professional fundraisers want to optimize their campaigns, attention must be focused on the size of the threshold. In general, announcing seed money is always a valuable strategy except when raising funds for a relatively low threshold. In this latter situation, it is more efficient not to announce seed money in appeals toward the best donors because of its detrimental effect. However, more research is needed here on other levels to further explore the question of which specific level of seed money best works with which level of threshold.

The third study demonstrated the added value as well as differential influence of two emotional dimensions of empathy in explaining charitable giving. On the one hand, empathic concern positively affects the donation decision. This finding makes sense, given that donors with a high level of empathic concern focus on alleviating their negative mood toward the unfortunate others which could be accomplished by making a donation. However, personal distress does not influence the decision to donate. On the other hand, both measures of empathy could negatively affect the donor's generosity toward the individual charity. For empathic concern, this unexpected result led to a second study. This additional data collection showed that donors high on empathic concern were individuals who donated toward different charities. Interestingly, looking only at generosity toward one charity could lead to wrong interpretations because, as expected, by summarizing the donations across all charities, people high on empathic concern were more generous in general. In addition, individuals high on personal distress were less generous. These egoistically motivated individuals are rather self oriented and the fact that the main concern of individuals high on personal distress is likely to repair the negative mood toward themselves, may explain this negative effect on generosity.

From a managerial point of view, the database of a charity is highly important in predicting charitable giving. Data augmentation through data collection about individuals' socio-demographics and psychological measures, could improve predictions of donation behavior. However, the distinction between the decision to donate and the donation amount is crucial. More specifically, people with a high score on empathic concern are more likely to make a donation in the next period but this does not imply that these people will be more generous

toward the charity of interest. Although this study provides important insights in charitable giving on donation requests in direct mail fundraising, several shortcomings must be noted. First, this study focuses on direct mail campaigns toward individuals who have donated to the charity before. Further research is needed to investigate whether these findings hold for prospects. In addition, although this study shows the added value of personality measures in predicting charitable giving, an opportunity for further research remains to incorporate other personality traits next to measures of empathy.

The overall purpose of the fourth study was to investigate competitive advertising effects in direct mail fundraising. This study extended prior research on competition in direct mail advertising. The common practice of list exchange provided us a unique opportunity to investigate this issue in reality. We set up a large scale field experiment that controlled the exchange and thus exposure to competitive brands. We clearly demonstrated that all charities are hurt by competition. This negative effect of competition confirms the results of most of the studies on competitive advertising interference. However, the stealing effect differed across charities. More specifically, we showed that stronger, well-established brands with a higher brand equity are less affected than brands with a lower brand equity. This was also in line with our expectations. In addition, regarding the donor wallet, it seems that the size of the wallet grows with higher levels of competition as a consequence of an increase in total spending.

For fundraising management it is important to bear in mind the harmful effect of the competitive pressure on the loyalty of their existing donors. However, not all charities are equally affected. For big, well-known charities the threat is smaller than for recently introduced charities with a rather low brand equity. Therefore, fundraisers of these smaller charities could be advised to better protect their donor list until they established a strong brand. The most important limitation of this study is that, even though we considered 23 charities, we did not capture all the competitors in the market. Hence, although our field experiment prevented that some donors were omitted from external recruitments, those individuals may still experience exposure to other charitable brands. Finally, further research needs to explore donor and recruitment characteristics in competitive interference.

2 CONCLUSIONS

Based on the findings in this dissertation and the experience during undertaking the different studies, we want to outline our main contributions, implications for academics and practitioners, and some important paths for further research.

First, an important added value of this dissertation is the benefit of measuring real donation behavior, stored in the database, instead of intentions, by investigating charitable behavior outside the laboratory setting. All studies were based on large-scale field data. These large sample sizes through this dissertation were an absolute necessity rather than a luxury. Consequently, researchers investigating direct mail effectiveness in the field as well as practitioners testing different versions of a campaign must be aware of the requirement of the large sample sizes needed to examine this issue. This is especially the case when analyzing gift size because of the small fraction of responders. For instance, the response rate of acquisition campaigns is around 1.5%. This means that you will only receive 15 donations that you can use for analyzing the gift size if you send 1000 solicitations.

Second, whereas most previous studies only considered one donor segment, we tried to capture the whole donor lifecycle as much as possible. We demonstrated that it is important to take into account the past behavior of potential donors because diverse segments along the donor lifecycle react differently from each other. We showed that an optimal campaign is not generalizable across donor segments. In other words, what works for one segment does not necessarily work for other segments. For example, we showed that social comparison is a very valuable strategy for campaigns toward prospects but that there is no social influence in campaigns toward active donors. Moreover, referring to other donors may become harmful when reactivating lapsed donors. Another example is that seed money is not always the best strategy. For campaigns with a low threshold toward the best donors, it is better not to announce seed contributions. On the one hand, this has important implications for researchers indicating that results related to a specific study and a particular segment need to be validated for other segments as well. We encourage further researchers to include the different segments in one study to increase the scope of their findings. On the other hand, practitioners also need to be aware of the fact that they may not just extrapolate a specific strategy into another context and that validation is very important. In sum, as we have shown that the three donor segments react differently to direct mail fundraising campaigns future research on these kinds of appeals should acknowledge the relevance of segment-specific strategies.

Third, in contrast to some previous studies, we investigated three parameters of campaign success rate: revenue per solicitation, response rate and average gift size. Revenue per solicitation is driven by response rate and/or by gift size. In this context, we found that certain strategies not automatically influenced all dependent measures simultaneously. For example, related to social influence, the referring to other donors as well as the announcement of seed money both have a social aspect. Basically, the announcement of seed money means that other donors already donated to the charity before. In this dissertation, we found that both types of social influence (i.e., social comparison and seed money) only affected the willingness to donate because we only found effects on response rate (and therefore revenue per solicitation) and not on gift size. Moreover, we found that certain particular independent measures may contrary affect the decision and generosity. This was the case for empathic concern. This personality trait positively affected the decision to donate but negatively affected the generosity of the donor. Therefore it is important that further research examines the three parameters simultaneously rather than focusing on one aspect of campaign success rate.

Fourth, we showed the importance of the distinction between charitable giving toward one charity versus charitable giving across all possible charities. For example, we discovered that empathic concern is negatively associated with generosity toward one charity while it is positively related with one's total generosity. Database marketing in general focuses on one charity because information concerning the payments and mailing history is stored in the database of the charity. Researchers investigating charitable giving in real-life by considering a charity's database must be aware of the fact that they are investigating part of the donor's wallet. Therefore, as we showed it the third and fourth study, it can be valuable to collect information about donor's giving behavior toward other charities. Moreover, it may be relevant for charities to collect information about multidonorship of their current donors.

In general, this dissertation contributes to the academic marketing literature in a number of ways. Moreover, the findings in this dissertation undoubtedly offer practical implications for fundraisers aiming to improve their direct mail campaigns. For fundraising managers, we showed that without additional costs, the effectiveness of direct mails can be improved. For example, in acquisition campaigns, by adding one simple sentence referring to similar donors, the revenues increased by 43%. In every study, we have demonstrated that database marketing can be an important tool in improving direct mail fundraising campaigns. Although this

dissertation provides important insights in improving direct mail fundraising, several limitations can be put forward. In our opinion, these limitations suggest opportunities for future research. First, we have restricted this dissertation to direct mail. It would be interesting to investigate whether our findings hold for fundraising campaigns that use other channels like fundraising online, by phone or face-to-face. The second concern is that our findings should be evaluated for other contexts within and beyond fundraising. It might be of interest to investigate whether our results hold for other populations and for appeals in a commercial setting.

Concerning optimizing the content of the donation request, an important next step in the field is definitely to refine the SDA and level of seed money. Regarding SDA, we extracted the reference amount from social influence. We investigated a limited number of reference amounts (i.e., average, recent and maximum gift size) related to the donor's zone of acceptable donations. In our study, we increased the reference amount by 10 percent. An important opportunity for further research on personalized donation amounts (starting from the donor's latitude of acceptance) is to explore the reference amounts more in depth by investigating other increases/decreases. Concerning seed money, we only investigated three levels: absence, 50% and 67%. This needs to be fine-tuned by exploring a broader range of seed money levels. Related to the experimental design for optimizing the donation request, we also encourage further researchers to consider fractional factorial designs next to full factorial designs. Fractional factorial designs have the benefit of investigating more aspects at once but these designs have the disadvantage of not investigating all potential interactions.

Regarding target selection, an important opportunity for further researchers is to look for other psychological measures in predicting donation behavior next to empathic concern and personal distress. Especially for acquisition, a context in which RFM-information is not available, the identification of additional important characteristics can be relevant. In addition, in the context of list exchange, further research needs to investigate whether some donors are more or less affected by competitive interference. This analysis will provide advice for charities on which type of donors are more or less influenced by competition. In an exchange context, charities might have the impression that exchanging is more dangerous for the most loyal donors and assume that it is better to protect the best donors instead of less loyal donors. However, the reality can be the other way around and therefore, it could be that it is better for

charities to swap the most loyal donors and highly protect the less loyal donors. Further research is required here to answer this question.

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