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Catch Them If You Can: The Effect of Reminder Direct Mailings on the Return Rate of First-Time Donors

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Despite the relevance of interactive marketing strategies, most nonprofit organizations rely on a marketing mix with a focus on direct marketing. Previous research shows that, by optimizing the mailing frequency, organizations are able to distinguish their mailing from other mailings that donors receive. However, some organizations, such as blood services, struggle to convert the frequency recommendations into their marketing practice. As donation events occur irregularly and blood donors are only able to donate a certain number of times, mailing strategies have to result in blood donations. This study examines a strategy in which a reminder direct mailing follows the regular invitation a few days before a particular donation event. A field experiment was conducted with 396 donors; 203 received the double mailing. Surprisingly, the results from hierarchical binary logistic regressions do not reveal any differences between the experimental groups. A single direct mailing approach is recommended, leading to considerable cost savings.

Keywords *direct marketing, reminder direct mailing, frequency, nonprofit management, field experiment, hierarchical binary logistic regression*

Introduction

The last decades have witnessed a shifting trend whereby traditional marketing strategies, such as direct marketing, are complemented or replaced by new interactive marketing strategies (Arnold & Tapp, 2001; Bacile, Ye, & Swilley, 2014; Hennig-Thurau et al., 2010; Pescher, Reichhart, & Spann, 2014; Sargeant, Jay, & Lee, 2006). However, direct marketing is still a key component of the marketing mix (Feld, Frenzen, Krafft, Peters, & Verhoef, 2013). Most organizations rely on a combination of direct and interactive marketing (Direct Marketing Association [DMA], 2015), since direct mailings still generate a high response rate among existing customers and donors (Feld et al., 2013; van Diepen, Donkers, & Franses, 2009).

Especially for nonprofit organizations (NPOs), direct mailings constitute an important element of their fundraising activities (Bekkers & Crutzen, 2007; Bekkers & Wiepking, 2011; Feld et al., 2013). However, NPOs increasingly use interactive marketing strategies to create awareness and to solicit donations (Waters & LeBlanc Feneley, 2013), relying on carefully designed direct mailing strategies guaranteed to raise sufficient funds to achieve the organization's purpose.

Consequently, donors are confronted with a continuously growing volume of direct mailings from diverse organizations (Diamond & Iyer, 2007; Feld et al., 2013), all competing for the limited attention of the recipients (Lhoest-Snoeck, van Nierop, & Verhoef, 2014). However, since the marketing budgets of NPOs are limited, they need to optimize their marketing performance (Bacile et al., 2014; Sargeant et al., 2006; Thomas, Feng, & Krishnan, 2015). Therefore, an extensive body of academic literature examines how direct mailings could be developed even more successfully for NPOs. Besides the well-documented approaches of segmenting and targeting donors (Rupp, Kern, & Helmig, 2014; Sundermann, Boenigk, & Willems, 2017) and the improvement of the contents and design elements of direct mailings (Bekkers &

Crutzen, 2007; Diamond & Iyer, 2007; Feld et al., 2013), another promising approach is to optimize the direct mailing frequency (Schweidel & Knox, 2013; van Diepen et al., 2009). Studies provide evidence that optimizing the direct mailing frequency over a defined time period affects the retention success in general (Elsner, Krafft, & Huchzermeier, 2004; Piersma & Jonker, 2004). Moreover, the optimization of the direct mailing frequency can lead to cost-saving opportunities (Sargeant, 2001) and may strengthen the relationship between an organization and its donors, since donors only receive selected direct mailings encouraging them to take a desired action (Schumann, Petty, & Clemons, 1990).

However, some organizations struggle to convert the frequency recommendations of previous studies into marketing practice. Their special constellations limit their possibilities to entirely use the optimized direct marketing strategies. One example exists in the blood donation market. Most blood services collect voluntary and non-remunerated blood donations to secure a constant supply of blood products (Williamson & Devine, 2013). Thus, many blood services rely on sending out direct mailings to invite blood donors to donation events. However, in many regions blood donation events only take place a few times a year (German Red Cross Blood Donor Service North-East [GRC], 2015a). Since most donors are only willing to travel a limited distance to attend a blood donation event (Mews, 2013; Schreiber et al., 2006), blood services need to focus their efforts on inviting blood donors from the area close to a particular event. Consequently, the spectrum in which they can optimize the direct mailing frequency is restricted, and they need to be successful in triggering donors to give blood at the few blood donation events in their area.

In particular, the retention of individuals who have given blood for the first time plays a vital role. The literature on blood donor behaviour highlights that the time between the first and the second donation is crucial to building a relationship (Kheiri & Alibeigi, 2015; Schreiber et al., 2005). The opportunity to return quickly is important, as research suggests that a higher frequency

of blood donations in the first donation year increases the probability of becoming loyal (Kasraian & Tavassoli, 2012; Schreiber et al., 2005). Moreover, with the third donation, donors begin to identify themselves as regular blood donors (Callero & Piliavin, 1983).

Thus, this study contributes to marketing theory and practice by extending the knowledge of effective direct mailing strategies for NPOs in the blood donation context. Unlike previous studies that consider optimizing the frequency of direct mailings over a longer period of time, this study analyses the effectiveness of a direct mailing strategy within a short time frame of two weeks, which aims at generating the desired donation behaviour of first-time donors regarding a particular donation event. This study examines a regular direct mailing that invites first-time blood donors to donate for a second time, followed by a reminder direct mailing one week before the particular blood donation event takes place. The study aims to determine (1) whether a reminder direct mailing, in addition to the regular direct mailing (double mailing), has a positive effect on the return behaviour of first-time blood donors and (2) whether an additional reminder direct mailing is more effective for a special group of first-time blood donors. To provide evidence, a field experiment was conducted. The sample comprised first-time blood donors of the GRC, which was a partner in conducting this experiment. Other organizations can rely on this case study when evaluating their common direct mailing strategies.

The study continues with an overview of the prior research. Subsequently, the experimental structure and method used to collect the data are described. By applying hierarchical binary logistic regression, the data from the field experiment are analysed. After presenting the relevant findings, the implications for further NPO research and practice are given.

Prior Research on Reminder Direct Mailings

Although many NPOs are aware that sending out too many direct mailings may decrease the number of donations, the answers to the question of how to optimize direct mailings remain incomplete. For-profit and nonprofit research indicates that the positive effects of an optimized frequency of direct mailings, such as strengthening relationships and the probability of responses, outweigh the resources used and the costs involved (Jonker, Piersma, & Potharst, 2006). For example, by optimizing the frequency of direct mailings, the return rates of customers can be increased (Elsner et al., 2004), the distribution costs of the organization can be reduced (Gönül & Hofstede, 2006), and the relationship between an organization and its customers can be strengthened (Schumann et al., 1990). Other studies provide evidence that receiving direct mailings too frequently may even cause negative effects, such as defensive strategies or irritation (Diamond & Noble, 2001; van Diepen et al., 2009). However, some gaps remain. Those studies mainly base their findings on historical data provided by the participating organizations (Campbell et al., 2001; Elsner et al., 2004; Gönül & Hofstede, 2006) or use survey data collected by sending out questionnaires to customers or donors (Eastlick, Feinberg, & Trappey, 1993). In those studies direct mailing frequencies are analysed over a time period of a minimum of one year, and they do not investigate the effect of optimizing the frequency for one particular donation event. Furthermore, they rely on data from the past and do not analyse optimized frequencies in a field experiment.

In regards to optimizing the frequency of direct mailings another focus is on reminder mailings. Those reminders are sent out as follow-ups to remind the receiver that an answer is still lacking. Several studies test the effect of those follow-ups on the response rates to postal mail (de Rada, 2005; Heberlein & Baumgartner, 1978) or to email (Muños-Leiva, Sánchez-Fernández, Montoro-Ríos, & Ibáñez-Zapata, 2010) within a defined time frame. However, most studies focus on survey response rates and do not test for an actual outcome, such as donations. Furthermore, their results are not unambiguous. While some find an effect of reminder mailings, others cannot

confirm their hypotheses (Deutskens, de Ruyter, Wetzels, & Oosterveld, 2004; Yammarino, Skinner, & Childers, 1991). Thus, these results are not easily transferable to a nonprofit context, since most NPOs want their donors to engage in a desired behaviour, such as donating money or blood.

Reminder mailings are also analysed in nonprofit research, but the conditions of those studies are diverse. For example, Royse (1999) tests the effect of additional mailings on subsequent donation rates without clarifying the time frame. The author does not find significant results between the groups. Huck and Rasul (2010) conduct a field experiment, sending out a reminder mailing for donors six weeks after the initial direct mailing. Their results suggest that sending out a reminder increases donation behaviour. Another experimental study by Sonntag and Zizzo (2015) investigates how the frequency of reminder emails affects the donation amount and the probability of donating. They find no evidence that reminders increase donation amounts in the original sample. Only by looking at a restricted set of data do they detect hints of a positive effect. Nevertheless, they do not find differences between a weekly and a monthly reminder (Sonntag & Zizzo, 2015). Trier Damgaard and Gravert (2016) show that charity reminders sent out one week after the first direct mailing increase donations, but, as a negative consequence, reminders increase unsubscriptions from mailing lists.

In summary, the overview of the previous literature indicates the necessity for additional research. Firstly, more action-based research is needed to motivate behaviour under real conditions, such as field experiments. Historical or survey data are not able to depict the behaviour when prompted. Secondly, research involving a shorter time frame to optimize the frequency of direct mailings and trigger a desired behaviour is required. This is necessary to prevent NPOs from suffering negative consequences if they send out direct mailings within too short a time frame. Thirdly, more insights into the possibility of motivating donors to donate at a particular donation

event are needed. The described research only tries to motivate donations in general, and convincing donors to make a donation when needed appears to be more difficult. Consequently, this study addresses these three points.

Method

Study Design

To test whether an additional reminder direct mailing increases the likelihood of a subsequent donation from first-time blood donors, a field experiment was conducted between October and November 2014. The sample consisted of first-time blood donors of the GRC. Overall, 396 donors were identified, having donated blood for the first time less than one-and-a-half years before the experiment. Especially for first-time blood donors, the time between the first and the second donation is a decisive factor. The probability of becoming an active donor increases for those who give once or twice during the first year (Schreiber et al., 2005). After a period of twelve months of no donations, the probability of becoming an active blood donor and thereby becoming loyal declines rapidly (Kheiri & Alibeigi, 2015).

All first-time blood donors were randomly assigned to one of two conditions, the control or the experimental group. In the first condition, which corresponds to the common practice of the GRC, first-time blood donors only received one regular direct mailing (control group; N = 193). In the second condition, first-time blood donors received two mailings: the regular direct mailing and a reminder direct mailing (double mailing) one week before the particular donation event (experimental group; N = 203). Therefore, the first-time blood donors in the experimental group received two direct mailings within a time frame of two weeks, whereas the control group only received one. The regular direct mailing invited participants to donate blood at the next possible donation event. The first-time blood donors in both conditions received it two weeks before the

particular blood donation event. Therein, only general information was given, such as the time, date, and place of the donation event.

In addition to this general information, the reminder direct mailing included an additional sentence ('Thank you for your first blood donation'), which is in line with prior research (Merchant, Ford, & Sargeant, 2010), and a paragraph that defined the membership of a social donor group, reminding donors of the blood donation event. Otherwise, sending an exact direct mailing a second time may have led to confusion for the recipients. Consequently, the double mailing influenced the return behaviour by confronting first-time blood donors with the invitation to donate again twice within a time frame of two weeks.

Data Collection

The data collection started after sending out the first regular direct mailing and ended one month after the last blood donation event. The sample consisted exclusively of first-time blood donors who were able to donate for the second time during the time frame of the field experiment. Thus, the sample corresponded to the basic population of first-time blood donors who were able to donate again. Table 1 shows all the sample characteristics.

[Table 1 about here]

A total of 105 blood donation events that took place in 54 cities in November 2014 were advertised. Of the 396 invited first-time blood donors, 105 (26.5 per cent) decided to donate blood for the second time, 49 (12.4 per cent) from the control group and 56 (14.1 per cent) from the experimental group. Overall, more female (227; 57.3 per cent) first-time blood donors were invited. The sample shows a good distribution across the age groups. The ages ranged from 18 to 64, resulting in a mean age of 33.61 years (median: 30 years). The distribution of blood types, with 37.4 per cent O, 41.2 per cent A, 6.8 per cent AB, and 14.6 per cent B, almost matched the German

blood type distribution (GRC, 2015b). Regarding the time that had passed since the first donation, most blood donors had donated not more than six months previously (341; 86.1 per cent).

Measures

The dependent variable was the actual blood donation behaviour, that is, whether first-time blood donors accepted the invitation and donated blood for the second time (yes = 1) after receiving the reminder direct mailing and/or the regular direct mailing or whether they gave no blood (no = 0).

To include the two experimental conditions in the subsequent analysis, a dummy variable was created. The reference category was the control condition (= 0). The experimental condition (= 1) contained first-time blood donors receiving the double mailing. Furthermore, additional data, which were collected from every donor, were used as independent variables, including socio-demographic and donor-specific information. Variables were selected that are identified in the previous literature as predictors for starting a blood donation career, for example age, gender, blood type, and time elapsed since the first blood donation (Chan, Wan, & Yu, 2014; Kheiri & Alibeigi, 2015; Veldhuizen, Doggen, Atsma, & de Kort, 2009). Since gender and blood type are categorical in nature, two additional dummy variables were created, male functioning as the reference category for gender (female = 1; male = 0) and blood type A (= 0) acting as the reference category for blood type.

Analytical Approach

To assess whether significant differences exist in the blood donation behaviour between the first-time blood donors of the control group and those of the experimental group, a t-test for independent samples was conducted. Afterwards, and to exert further control, a hierarchical binary logistic regression analysis was performed (Godin, Conner, Sheeran, Bélanger-Gravel, & Germain, 2007). Besides the binary form of the dependent variable, the independent variables are mainly

nonmetric variables. Therefore, binary logistic regression was the most suitable approach. Since interaction effects were also added, the hierarchical procedure also indicated the robustness of the two models used (Hair, Black, Babin, & Anderson, 2010).

To perform the hierarchical binary logistic regression, the comparability of the two groups had to be ensured, since the experimental results are only valid if the groups are homogeneous (Koschate-Fischer & Schandelmeier, 2014). An overview of the two experimental groups was provided by a χ^2 test.

[Table 2 about here]

The χ^2 test did not reveal significant differences between the control and the experimental group (table 2). The null hypothesis that the two groups are homogeneous was accepted with respect to gender ($\chi^2(1, 396) = .887$; $p = .346$), age ($\chi^2(4, 396) = 3.512$; $p = .476$), and time passed since the first donation ($\chi^2(5, 396) = 3.393$; $p = .640$). Only the blood types ($\chi^2(3, 396) = 9.070$; $p = .028$) are significantly different regarding the two conditions. Thus, the two groups are heterogeneous, leading to the exclusion of this variable from the later hierarchical binary logistic regression.

Results

To answer the first research question, whether an additional reminder direct mailing increases the return rate of donors, a t-test for independent samples was performed (Hair et al., 2010). A comparison of the mean values of the two experimental conditions indicates the influence on the return behaviour of the two groups. In addition, the t-test for independent samples shows whether the two groups differ regarding the control variables (table 3). The mean value of the experimental group ($M = .28$; $SD = .448$) is only slightly higher than the mean value of the control group ($M = .25$; $SD = .436$). This equals an increase of 3 per cent in the probability of making a second donation

if receiving the double mailing. However, the t-test revealed no significant differences between the two groups ($T(394) = .494, p = .622$).

[Table 3 about here]

Regarding the control variables, significant results were found for age ($T(394) = .049; p = .961$), with a mean value for the experimental group of $M = 2.42$ ($SD = 1.242$) and for the control group of $M = 2.42$ ($SD = 1.277$), which gives the first hint of the influence of age on donation behaviour. For gender ($T(394) = -.941; p = .348$), with mean values of $M = 1.60$ ($SD = .492$) for the experimental group and $M = 1.55$ ($SD = .499$) for the control group, and elapsed time since the first donation ($T(394) = -.391; p = .696$), with mean values of $M = 1.63$ ($SD = 1.014$) for the experimental group and $M = 1.59$ ($SD = 1.205$) for the control group, no significant results appeared.

In the next step, two hierarchical binary logistic regressions were applied to gain further insights into the interaction of reminder direct mailings with donation behaviour. As stated, the dependent variable is a second donation. Model 1 controlled for the independent variables age, gender, and time passed since the first donation. As the control variables might have influenced the result, this procedure enabled us to determine whether one of those variables leads to a significantly higher probability of donating for the second time in either the control or the experimental group. Additionally, in model 2 the interaction effects of the two experimental conditions with the independent variables were implemented. This referred to the second research question whether one of the two conditions leads to a higher second donation rate regarding special donor characteristics. In both models age and time since the first donation were integrated as metric variables to show even small effects. This guaranteed detectable influences of those variables due to the higher information level, which might be lost by a categorical subdivision (Hair et al., 2010). Table 4 shows all the variables used and the results of the hierarchical binary logistic regression.

[Table 4 about here]

The first column displays the independent variables. The second column contains the odds ratio, the third the standard error, and the fourth the p value. To interpret the results, odds ratios are used. Odds ratios with a value greater than '1' indicate an increase in the probability of returning for a second donation. Consequently, odds ratios with a value below '1' indicate a lower probability (Hair et al., 2010).

Model 1: The first hierarchical model analyses the influence of the two experimental conditions regarding the dependent variable of a second donation and controls for the donor characteristics of the sample. Concerning the quality of the model used, model 1 shows a pseudo R^2 of .062. Thus, the independent variables used can explain 6.2 per cent of the variance extracted and appear to be relatively low. Since only natural data from the GRC database were used, the model includes only a few variables. Other variables, such as past experience (Godin et al., 2007), motivation (Nilsson Sojka & Sojka, 2008), barriers to donating again (Kasraian, 2010), and risk factors (Barkworth, Hibbert, Horne, & Tagg, 2002), are identified by the prior literature as influencing the donation behaviour. Their absence might explain the low pseudo R^2 . Although these variables were not measured, the H-L goodness-of-fit test statistic shows non-significant values of 11.503 ($p > .05$). These results indicate that the predicted model does not differ from the observed one. The model used shows a good fit (Hair et al., 2010).

The results reveal no significant differences between the experimental and the control group and those who have not donated for a second time. Besides, two of the three control variables possess significantly different probabilities of returning to donate blood. While the control variable 'gender' indicates that female donors in comparison with male donors have a lower probability of making a second blood donation by a factor of .548, 'age' reveals that, with every year of life, the chance of a second blood donation increases by a factor of .029. The result of the third control

variable does not reveal significant effects of the time passed since the first donation on the probability of a second one. The constant of the regression is highly significant and shows an odds ratio of .185.

Model 2: To answer the second research question, whether the additional reminder direct mailing is more efficient for a specific group of donors, the second model adds interaction effects between the experimental groups and the control variables. The pseudo R^2 of .063 of model 2 is low. As mentioned before, this might be due to missing variables. The H-L goodness-of-fit test statistic shows non-significant values of 5.728 ($p > .05$), which indicate a good model fit.

The findings confirm the results of model 1, which are consistent. No significant differences between the control and the experimental condition regarding a second blood donation were found. Besides, a significantly higher probability of donating blood for a second time with respect to ‘age’ and ‘gender’ was detected. While with every year that the first-time blood donors become older, the probability of a second donation increases by a factor of .029, female blood donors have a lower probability of returning to donate by a factor of .509 compared with male blood donors. Again, no significantly different probabilities of donating blood for a second time regarding the ‘time passed since the first donation’ were observed. With respect to the interaction effects, no significant differences were found between the two groups. The constant of the regression is significant, with an odds ratio of .206.

Discussion

Unlike previous research, which uses historical or survey data to optimize the frequencies of direct mailings, this study analysed the effectiveness of an additional reminder direct mailing in the blood donation context under real conditions within a field experiment. The aim was to determine whether an additional reminder mailing is effective and to test for which type of first-

time blood donors the double-mailing approach works best. Compared with the prior literature, which attaches great importance to the frequency of direct mailings (Trier Damgaard & Gravert, 2016; Sonntag & Zizzo, 2015), this study provides evidence that receiving two direct mailings during a short time frame of two weeks is an effective strategy neither to increase donor return rates nor to address a specific group of first-time blood donors. As Sonntag and Zizzo (2015) hypothesize: '[...] not reminding people could simply make them forget about their opportunity to donate to charity ("out of sight, out of mind")'. Although the test setting of this study did not include a group of donors that received no mailing, it seems reasonable to suppose that reminding donors of the next blood drive is important to motivate their second blood donation. However, in line with the findings of prior studies (Royse, 1999; Sonntag & Zizzo, 2015), a second reminder mailing has no additional effect. Indeed, it appears that donors who have already decided to donate for the second time do not need an additional reminder to do so. In other words, if the decision has been made, one invitation is enough and no further reminder is necessary. Consequently, it is important for NPOs to examine which factors in addition to an optimal mailing frequency are relevant to motivating their first-time donors to return in their specific context. Blood donor research provides evidence that psychological factors, such as satisfaction with the donation experience, play an essential role (Boenigk & Helmig, 2013; Boenigk, Leipnitz, & Scherhag, 2011) and should be strengthened to improve second-donation behaviour.

Although the double-mailing approach in this field experiment was not successful in increasing the number of donors who donate blood for a second time, the results yield some interesting information to improve the retention strategies for blood donors. The characteristics that influence the return behaviour of first-time blood donors were verified. Firstly, male blood donors have a higher probability of donating again, which is in line with the prior research (Andaleeb & Basu, 1995). This is especially interesting, as more female first-time blood donors were invited to

make a second donation. As Misje, Bosnes, and Heier (2010) show, male blood donors are overrepresented among regular donors; women are overrepresented regarding first donations. There are several reasons for women not to return to make a second donation. Due to physical conditions, such as lower weight or lower haemoglobin levels, higher deferral rates and cases of adverse reactions are more common amongst women (Misje et al., 2010). An optimized frequency of direct mailings will not change these reasons.

Secondly, in line with the previous research, the results indicate that blood donors are more likely to return when they are older (Andaleeb & Basu, 1995; Müller-Steinhardt et al., 2010). With every additional year, first-time blood donors have a higher probability of donating for a second time. In other words, with increased age the probability of stopping donating blood decreases (Veldhuizen et al., 2009). The reasons might be that older blood donors show a higher level of awareness of the need and greater social responsibility (Andaleeb & Basu, 1995). Furthermore, with rising age people's lifestyle becomes more stable. The factors that interrupt the blood donation career, such as founding a family or moving to another city, have mostly been completed (Misje et al., 2010).

Regarding the differences in the donation behaviour of men and women as well as of younger and older age groups, the question remains of whether the contents of the direct mailings used in the field experiment were adequate to address women and younger donors successfully or whether a segmentation approach including different messages for each segment would have been more effective.

Thirdly, no evidence was found that the time that has passed between the first donation and the receipt of a donation invitation is decisive for the decision to donate again. However, as other studies highlight the importance of an early return to donate blood for a second time (Kasraian & Tavassoli, 2012; Kheiri & Alibeigi, 2015; Schreiber et al., 2005), the reason for the non-significant

results might be that it is not the invitation itself that predicts donation behaviour but rather the decision that was made earlier. Thus, to guarantee early return behaviour, marketing strategies should positively affect first-time donors' motives, feelings, and experiences directly after the first donation.

Managerial Implications

To summarize from a management perspective, the results of this study indicate that it is sufficient for blood services to send out only one regular direct mailing two weeks before a particular donation event, which is important cost-saving information. As this study shows, and as stated earlier, optimizing not only the frequency but additionally the contents of direct mailings might be important. Giving donors the right appeals in the right frequency before a particular event to stimulate the desired behaviour remains the main goal. Consequently, when developing mailing strategies, it is important to pay attention not only to the frequency of the mailing but also to whether the design and message are eligible to target a particular segment.

Furthermore, there are some specific aspects of blood donations compared with other donation forms that should be emphasized. As blood donors in comparison with money or time donors are confronted with a more personal way of giving, including factors such as fear, pain, and deferrals, the motives to donate differ (Lee, Piliavin, & Call, 1999). Lee et al. (1999, p. 276) conclude: 'Feelings of moral obligation have a stronger effect on role-identity as a blood donor than as a donor of time or money.' Furthermore, in comparison with money donors, satisfaction is one main predictor of blood donors becoming loyal (Boenigk & Helmig, 2013, Sundermann, 2018). Since blood donors are only able to donate a certain amount per year (in Germany blood donors are only eligible to donate every 56 days) and blood donation events in many regions only take place a few times a year, blood services are subject to certain restrictions regarding the sending of

direct mailings (GRC, 2015a). For other NPOs, which collect money donations or search for volunteers, other motives and aspects may be relevant. For example, they have no time restrictions and are able to send direct mailings at any time.

Although this study focuses on the special case of nonprofit blood services, its approach could be a reference for evaluating donation behaviour under real conditions for both nonprofit blood services and other types of NPOs. Especially NPOs, with their limited resources and capacities, must be efficient when developing new marketing approaches (Rudov, McCormick-Ricket, Kingsmill, Ledford, & Carton, 2017; Sargeant et al., 2006). However, it seems to be difficult for them to convert a marketing strategy into a connected philosophy and methodology (Balabanis, Stables, & Phillips, 1997). Consequently, NPOs tend to use routinely performed marketing strategies without a regular evaluation of their effectiveness. Considering the need for reasonable and cost-saving use of financial resources, the proposed scenario represents a compelling approach for other NPOs and contributes to the recent discussion on how to assess and design effective direct mailing approaches (Feld et al., 2013; Sargeant et al., 2006; van Diepen et al., 2009).

Limitations and Suggestions for Future Research

Despite these interesting findings, this research has some limitations representing potential fields for further research. Firstly, the field experiment was conducted in the German blood donor context. Therefore, the findings are neither unrestrictedly transferable to other blood donor groups nor generalizable to other nonprofit contexts. Regarding the comparability with donation systems in other countries, the German blood donation system has some singularities. Blood donors can choose between for-profit, public, and nonprofit blood services while donating (Mews, 2013). First-time blood donors might have donated to another blood service at the same time as this field

experiment took place. To strengthen the findings of this study and provide hints for the comparability of different donation forms as well as different blood donors' cultures and blood service systems, additional research should examine the effect of a double mailing for other types of NPOs as well as repeating this study in other national contexts. Secondly, it must be kept in mind that the data in this study are limited due to some restrictive facts. These are the restriction of the sample, the limited time frame of one month and the time period between the two direct mailings. To evaluate the effectiveness of the double mailing used, an expansion over a longer period would seem to be useful, especially as this study was not able to prove whether first-time blood donors donated for a second time after ending the experiment. Future research should consider these long-term return effects when evaluating direct mailing frequencies. Moreover, those studies should take different time frames and variations in the frequency of direct mailings into account. Accordingly, such studies would provide insights into whether different time intervals lead to higher return rates and whether the long-term effects can be increased regarding the blood donation behaviour. Besides, by sending blood donors a follow-up survey as well, researchers could gain insights into the reasons behind donors' decisions to donate or not. This would enhance the knowledge of direct mailing approaches in general and provide suggestions for designing ones that are more precise. Finally, further research should analyse which kind of direct mailing contents or design elements are the most efficient. Thus, the most influential information for first-time blood donors will be detectable.

References

- Andaleeb, S. S., & Basu, A. K. (1995). Explaining blood donation: The trust factor. *Journal of Health Care Marketing, 15*(1), 42–48.
- Arnold, M. J., & Tapp, S. R. (2001). The effect of direct marketing techniques on performance: An application to arts organizations. *Journal of Interactive Marketing, 15*(3), 41–52.
- Bacile, T. J., Ye, C., & Swilley, E. (2014). From firm-controlled to consumer-contributed: Consumer co-production of personal media marketing communication. *Journal of Interactive Marketing, 28*(2), 117–133.
- Balabanis, G., Stables, R. E., & Phillips, H. C. (1997). Market orientation in the top 200 British charity organizations and its impact on their performance. *European Journal of Marketing, 31*(8), 583–603.
- Barkworth, L., Hibbert, S., Horne, S., & Tagg, S. (2002). Giving at risk? Examining perceived risk and blood donation behaviour. *Journal of Marketing Management, 18*(9–10), 905–922.
- Bekkers, R., & Crutzen, O. (2007). Just keep it simple: A field experiment on fundraising letters. *International Journal of Nonprofit and Voluntary Sector Marketing, 12*(4), 371–378.
- Bekkers, R., & Wiepking, P. (2011). A literature review of empirical studies of philanthropy: Eight mechanisms that drive charitable giving. *Nonprofit and Voluntary Sector Quarterly, 40*(5), 924–973.
- Boenigk, S., & Helmig, B. (2013). Why do donors donate? Examining the effects of organizational identification and identity salience on the relationships among satisfaction, loyalty, and donation behavior. *Journal of Service Research, 16*(4), 533–548.

- Boenigk, S, Leipnitz, S, & Scherhag, C. (2011). Altruistic values, satisfaction and loyalty among first-time blood donors. *International Journal of Nonprofit and Voluntary Sector Marketing*, 16(4), 356-370.
- Callero, P. L., & Piliavin, J. A. (1983). Developing a commitment to blood donation. The impact of one's first experience. *Journal of Applied Social Psychology*, 13(1), 1–16.
- Campbell, D., Erdahl, R., Johnson, D., Bibelnieks, E., Haydock, M., Bullock, M., & Crowder, H. (2001). Optimizing customer mail streams at Fingerhut. *Interfaces*, 31(1), 77–90.
- Chan, J. S. K., Wan, W. Y., & Yu, P. L. H. (2014). A Poisson geometric process approach for predicting drop-out and committed first-time blood donors. *Journal of Applied Statistics*, 41(7), 1486–1503.
- De Rada, V. D. (2005). The effect of follow-up mailings on the response rate and response quality in mail surveys. *Quality & Quantity*, 39(1), 1–18.
- Deutskens, E., de Ruyter, K., Wetzels, M., & Oosterveld, P. (2004). Response rate and response quality of internet-based surveys: An experimental study. *Marketing Letters*, 15(1), 21–36.
- Diamond, W. D., & Iyer, E. S. (2007). Creating effective direct mail charitable solicitations: The effects of enclosures and different appeals. *Journal of Nonprofit and Public Sector Marketing*, 18(1), 81–100.
- Diamond, W. D., & Noble, S. M. (2001). Defensive responses to charitable direct mail solicitations. *Journal of Interactive Marketing*, 15(3), 2–12.
- Direct Marketing Association [DMA]. (2015). *Statistical fact book*. New York: Direct Marketing Association.
- Eastlick, M. A., Feinberg, R., & Trappey, C. (1993). Information overload in mail catalog shopping: How many catalogs are too many? *Journal of Direct Marketing*, 7(4), 14–19.

- Elsner, R., Krafft, M., & Huchzermeier, A. (2004). Optimizing Rhenanias' s direct marketing business through dynamic multilevel modeling (DMLM) in a multicatalog-brand environment. *Marketing Science*, 23(2), 192–206.
- Feld, S., Frenzen, H., Krafft, M., Peters, K., & Verhoef, P. C. (2013). The effect of mailing design characteristics on direct mail campaign performance. *International Journal of Research in Marketing*, 30(2), 143–159.
- German Red Cross Blood Donor Service North-East [GRC]. (2015a). *Termine zur Blutspende*. Retrieved July 27, 2016, from <https://www.blutspende-nordost.de/blutspende/termine-zur-blutspende/>.
- German Red Cross Blood Donor Service North-East [GRC]. (2015b). *Blutgruppen & Verteilung in der Bevölkerung*. Retrieved July 27, 2016, from <http://www.blutspende-nordost.de/blutspende/wissenswertes-ueber-blut/blutgruppen-und-verteilung.php>.
- Godin, G., Conner, M., Sheeran, P., Bélanger-Gravel, A., & Germain, M. (2007). Determinants of repeated blood donation among new and experienced blood donors. *Transfusion*, 47(9), 1607–1615.
- Gönül, F. F., & Hofstede, F. T. (2006). How to compute optimal catalog mailing decisions. *Marketing Science*, 25(1), 65–74.
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate data analysis* (7th ed.). Upper Saddle River, NJ: Prentice Hall.
- Heberlein, T. A., & Baumgartner, R. (1978). Affecting response rates to mailed questionnaires: A quantitative analysis of the published literature. *American Sociological Review*, 43(4), 447–462.
- Hennig-Thurau, T., Malthouse, E. C., Friege, C., Gensler, S., Lobschat, L., Rangaswamy, A., & Skiera, B. (2010). The impact of new media on customer relationships. *Journal of Service Research*, 13(3), 311–330.

- Huck, S., & Rasul, I. (2010). Transactions costs in charitable giving: Evidence from two field experiments. *BE Journal of Economic Analysis & Policy*, *10*(1), 1–32.
- Jonker, J., Piersma, N., & Potharst, R. (2006). A decision support system for direct mailing decisions. *Decision Support Systems*, *42*(2), 915–925.
- Kasraian, L. (2010). Causes of discontinuity of blood donation among donors in Shiraz, Iran: Cross-sectional study. *Sao Paulo Medical Journal*, *128*(5), 272–275.
- Kasraian, L., & Tavassoli, A. (2012). Relationship between first-year blood donation, return rate for subsequent donation and demographic characteristics. *Blood Transfusion*, *10*(4), 448–452.
- Kheiri, S., & Alibeigi, Z. (2015). An analysis of first-time blood donors return behavior using regression models. *Transfusion Medicine*, *25*(4), 243–248.
- Koschate-Fischer, N., & Schandelmeier, S. (2014). A guideline for designing experimental studies in marketing research and a critical discussion of selected problem areas. *Journal of Business Economics*, *84*(6), 793–826.
- Lee, L., Piliavin, J. A., & Call, V. R. A. (1999). Giving time, money, and blood: Similarities and differences. *Social Psychology Quarterly*, *62*(3), 276–290.
- Lhoest-Snoeck, S., van Nierop, E., & Verhoef, P. C. (2014). For new customers only: A study on the effect of acquisition campaigns on a service company's existing customers' CLV. *Journal of Interactive Marketing*, *28*(3), 210–224.
- Merchant, A., Ford, J. B., & Sargeant, A. (2010). 'Don't forget to say thank you': The effect of an acknowledgement on donor relationships. *Journal of Marketing Management*, *26*(7–8), 593–611.
- Mews, M. (2013). To pay or not to pay – The role of monetary incentives in an optimal blood donation service bundle. *International Journal of Nonprofit and Voluntary Sector Marketing*, *18*(3), 192–202.

- Misje, A. H., Bosnes, V., & Heier, H. E. (2010). Gender differences in presentation rates, deferrals and return behaviour among Norwegian blood donors. *Vox Sanguinis*, *98*(3p1), e241–e248.
- Müller-Steinhardt, M., Müller-Kuller, T., Weiß, C., Menzel, D., Wiesneth, M., Seifried, E., & Klüter, H. (2012). Safety and frequency of whole blood donations from elderly donors. *Vox Sanguinis*, *102*(2), 134–139.
- Muños-Leiva, F., Sánchez-Fernández, J., Montoro-Ríos, F., & Ibáñez-Zapata, J. Á. (2010). Improving the response rate and quality in web-based surveys through the personalization and frequency of reminder mailings. *Quality & Quantity*, *44*(5), 1037–1052.
- Nilsson Sojka, B., & Sojka, P. (2008). The blood donation experience: Self-reported motives and obstacles for donating blood. *Vox Sanguinis*, *94*(1), 56–63.
- Pescher, C., Reichhart, P., & Spann, M. (2014). Consumer decision-making processes in mobile viral marketing campaigns. *Journal of Interactive Marketing*, *28*(1), 43–54.
- Piersma, N., & Jonker, J. (2004). Determining the optimal direct mailing frequency. *European Journal of Operational Research*, *158*(1), 173–182.
- Royse, D. (1999). Exploring ways to retain first-time volunteer blood donors. *Research on Social Work Practice*, *9*(1), 76–85.
- Rudov, L., McCormick-Rickett, I., Kingsmill, D., Ledford, C., & Carton, T. (2017). Evaluation recommendations for nonprofit social marketing campaigns: An example from the Louisiana Campaign for Tobacco-Free Living. *Nonprofit and Voluntary Sector Marketing*, *22*(1), 1–8.
- Rupp, C., Kern, S., & Helmig, B. (2014). Segmenting nonprofit stakeholders to enable successful relationship marketing: A review. *International Journal of Nonprofit and Voluntary Sector Marketing*, *19*(2), 76–91.

- Sargeant, A. (2001). Relationship fundraising: How to keep donors loyal. *Nonprofit Management and Leadership*, 12(2), 177–192.
- Sargeant, A., Jay, E., & Lee, S. (2006). Benchmarking charity performance: Returns from direct marketing in fundraising. *Journal of Nonprofit and Public Sector Marketing*, 16(1–2), 77–94.
- Schreiber, G. B., Schlumpf, K. S., Glynn, S. A., Wright, D. J., Tu, Y., King, M. R., Higgins, M. J., Kessler, D., Gilcher, R., Nass, C. C., Guiltinan, A. M., & National Heart, Lung, Blood Institute Retrovirus Epidemiology Donor Study. (2006). Convenience, the bane of our existence, and other barriers to donating. *Transfusion*, 46(4), 545–553.
- Schreiber, G. B., Sharma, U. K., Wright, D. J., Ownby, H. E., Tu, Y., Garratty, G., Piliavin, J., Zuck, T., & Gilcher, R. (2005). First year donation patterns predict long-term commitment for first-time donors. *Vox Sanguinis*, 88(2), 114–121.
- Schumann, D. W., Petty, R. E., & Clemons, D. S. (1990). Predicting the effectiveness of different strategies of advertising variation: A test of the repetition-variation hypotheses. *Journal of Consumer Research*, 17(2), 192–202.
- Schweidel, D. A., & Knox, G. (2013). Incorporating direct marketing activity into latent attrition models. *Marketing Science*, 32(3), 471–487.
- Sonntag, A., & Zizzo, D. J. (2015). On reminder effects, drop-outs and dominance: Evidence from an online experiment on charitable giving. *PLoS ONE*, 10(8), e0134705, 1–17.
- Sundermann, L. M. (2018). Share experiences: receiving word of mouth and its effect on relationships with donors. *Journal of Services Marketing*, 32(3), 322–333.
- Sundermann, L. M., Boenigk, S., & Willems, J. (2017). Under blood pressure – differentiated versus undifferentiated marketing to increase blood donations. *International Review on Public and Nonprofit Marketing*, 14(3), 321–340.

- Thomas, S. A., Feng, S., & Krishnan, T. V. (2015). To retain? To upgrade? The effect of direct mail on regular donation behavior. *International Journal of Research in Marketing*, 32(1), 48–63.
- Trier Damgaard, M., & Gravert, C. (2016). The hidden costs of nudging: Experimental evidence from reminders in fundraising. *Working Papers in Economics*, 650, 1–48, available at SSRN 2747893.
- Van Diepen, M., Donkers, B., & Franses, P. H. (2009). Dynamic and competitive effects of direct mailings: A charitable giving application. *Journal of Marketing Research*, 46(1), 120–133.
- Veldhuizen, I. J. T., Doggen, C. J. M., Atsma, F., & de Kort, W. L. A. M. (2009). Donor profiles: Demographic factors and their influence on the donor career. *Vox Sanguinis*, 97(2), 129–138.
- Waters, R. D., & LeBlanc Feneley, K. (2013). Virtual stewardship in the age of new media: Have nonprofit organizations moved beyond Web 1.0 strategies? *International Journal of Nonprofit and Voluntary Sector Marketing*, 18(3), 216–230.
- Williamson, L. M., & Devine, D. V. (2013). Challenges in the management of the blood supply. *The Lancet*, 381(9880), 1866–1875.
- Yammarino, F. J., Skinner, S. J., & Childers, T. L. (1991). Understanding mail survey response behavior: A meta-analysis. *Public Opinion Quarterly*, 55(4), 613–639.

Table 1. Sample characteristics

Variable	Specification	N = 396	%
Groups	Experimental (double mailing)	203	51.3
	Control (regular mailing)	193	48.7
Second donation	Yes	105	26.5
	No	291	73.5
Gender	Male	169	42.7
	Female	227	57.3
Age	18 to 24 years	119	30.1
	25 to 34 years	110	27.8
	35 to 44 years	74	18.7
	45 to 54 years	67	16.9
	55 to 64 years	26	6.6
Blood type	O	148	37.4
	A	163	41.2
	AB	27	6.8
	B	58	14.6
Time since first donation	1 to 12 weeks	250	63.1
	13 to 24 weeks	91	23.0
	25 to 36 weeks	33	8.3
	37 to 52 weeks	13	3.3
	53 to 64 weeks	1	.3
	65 to 76 weeks	8	2.0

Table 2. Results of the χ^2 test

Group	Experimental		Control		χ^2	p
	N	%	N	%		
Gender						
Male	82	40.4	87	45.1	.887	.346
Female	121	59.6	106	54.9		
Age						
18 to 24 years	62	30.5	57	29.5	3.512	.476
25 to 34 years	53	26.1	57	29.5		
35 to 44 years	39	19.2	35	18.1		
45 to 54 years	39	19.2	28	14.5		
55 to 64 years	10	4.9	16	8.3		
Blood type						
0	81	39.9	67	34.7	9.070	.028*
A	70	34.5	93	48.2		
AB	15	7.4	12	6.2		
B	37	18.2	21	10.9		
Time since first donation						
1 to 12 weeks	123	60.6	127	65.8	3.393	.640
13 to 24 weeks	53	26.1	38	19.7		
25 to 36 weeks	16	7.9	17	8.8		
37 to 52 weeks	6	3.0	7	3.6		
53 to 64 weeks	1	0.5	0	0.0		
65 to 76 weeks	4	2.0	4	2.1		

Significant differences of the Pearson chi-square test: *** $p < .001$; ** $p < .01$; * $p < .05$.

Table 3. Results of the t-test for independent samples

	N	M	SD	t	df	p (2-tailed)
Second donation				-.494	394	.622
Experimental	203	.28	.448			
Control	193	.25	.436			
Gender				-.941	394	.348
Experimental	203	1.60	.492			
Control	193	1.55	.499			
Age (categorical)				.049	394	.961*
Experimental	203	2.42	1.242			
Control	193	2.42	1.277			
Time since first donation (categorical)				-.391	394	.696
Experimental	203	1.63	1.014			
Control	193	1.59	1.205			

Significant differences: *** $p < .001$; ** $p < .01$; * $p < .05$.

Table 4. Results of the hierarchical binary logistic regression

	Model 1			Model 2		
	OR	SE	p	OR	SE	p
Group						
Experimental	1.181	.234	.477	.936	.765	.932
Control	<i>Reference</i>			<i>Reference</i>		
Gender						
Female	.548	.233	.010**	.509	.340	.047*
Male	<i>Reference</i>			<i>Reference</i>		
Age						
18 to 64 years	1.029	.009	.002**	1.029	.013	.029*
Time since first donation						
1 to 76 weeks	.999	.001	.579	.999	.002	.513
Group × gender						
Female				1.148	.468	.769
Male				<i>Reference</i>		
Group × age						
18 to 64 years				1.001	.018	.958
Group × time since first donation						
1 to 76 weeks				1.001	.003	.694
Constant	.185	.402	.001***	.206	.536	.003**
N			396			396
-2 log L			440.960			440.704
Pseudo R ²			.062			.063
χ^2 (p)			11.503 (.175)			5.728 (.678)

Note: Dependent variable: second blood donation. OR = odds ratio; SE = standard error.

Significant outcome: *** p < .001; ** p < .01; * p < .05.