

EFFECTIVENESS OF RETARGETED DIRECT MAILING: WHEN DOES IT WORK?

Abstract

Retailers nowadays use direct mailings tailored to customer's purchase recency in order to convince them to repurchase. This paper aims to investigate whether such retargeted direct mailings are more effective in impacting customer purchase behavior than non-targeted direct mailings, using an empirical a quasi-experimental setting. We found that retargeted direct mails are only effective in increasing the purchase likelihood of customer, while not successful in increasing their spending. Plus, the effectiveness of retargeted direct mailings depends on customer characteristics and retargeted direct mailing's type. The results of the study provide valuable insights for managers when allocating the direct mailing budget.

Keywords

Direct mailing, Retargeting, Customer retention

Statement of Key Contributions

The key contribution of this paper is that we quantify the impact of RDM efforts on customer actual purchase outcomes, namely, purchase incidence and spending and how its effectiveness depends on customer characteristics and RDM type. An interesting finding is that the RDMs are only effective in increasing the purchase likelihood of customer, while not successful in increasing their spending. In addition, with this paper, we extend the current direct mailing literature by showing that relationship-oriented RDMs have a higher impact on customer's purchase outcomes, compared with transaction-oriented RDMs.

The results of the study will provide valuable insights for managers when allocating their direct marketing budget. First, our results suggest that it pays off to send out RDM to customers, with the goal of triggering customers to make a purchase and avoid potential permanent churning. In addition, our results challenge the common practice of retailers to target customers with the transaction-oriented communications, as we found that relationship-oriented RDMs are more effective in terms of impacting purchase outcomes. Finally, our results highlight the importance of targeting customers based on (behavioral) customer characteristics, as we found that customers who received more traditional DM in the past are more likely to respond to RDMs.

INTRODUCTION

Marketers continue to use direct mail (DM) in the recent years, even in the digital age (DMA 2018). This could be due to the improvements in collecting relevant consumer data on customer purchase history, demographics and geographics and the shift toward retargeted direct mail (RDM). RDM is to use the information from past consumers behaviors and send out tailored DMs to reactivate customers and entice them to come back to store and repurchase (Forbes, 2020). The use of RDM has resulted in increase in effectiveness of DM according to business presses. The Forbes, for instance, reported that over 84% of consumers would be more likely to open a piece of DM if DM is tailored to their needs (Forbes, 2017).

Although business press predicts that RDMs have a higher relative performance in comparison with traditional DMs because they are tailored to customer's purchase recency (e.g., Forbes 2017), yet, there is little academic evidence on the effectiveness of the RDM, compared to traditional DMs. Therefore, in this study, we aim to empirically investigate the effect of the RDM on actual customer purchase behavior and whether its effectiveness depends on customer and RDM characteristics. To examine the effectiveness of RDM, we use a large-scale dataset from a direct mail agency in the Netherlands.

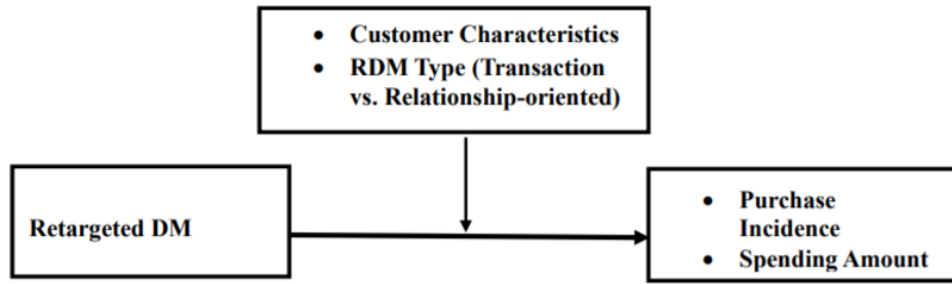
PURPOSE

The purpose of this paper is to quantify the impact of RDM efforts on customer actual purchases. In particular, we address the following research questions:

1. What is the impact of RDM on customer purchase behavior, namely purchase incidence and purchase amount?
2. For which groups of customers, in terms of behavioral and demographic characteristics (e.g., customer demographics, relationship duration with the retailer and communication history), is RDM more effective?
3. Which type of RDM campaigns are more effective, namely transaction-oriented RDM versus relationship-oriented DM?

Figure 1 summarizes our conceptual framework.

Figure 1- Conceptual framework



METHODOLOGY

Data

We address our research questions using a unique customer-level dataset for 10 optical retailers in the Netherlands across eight years (2011-2018). Five out of 10 retailers participated in the RDM program, while the rest did not. Both of these two groups of the retailers are very similar in terms of customer base and location. and relationship-oriented, where in this DMs the retailer tries to re-activate the customers.

We track purchase behavior, customer characteristics and DM communication history of customers who have valid information on age, gender and registration date. We adopt a quasi-experimental design approach using propensity score matching to identify non-RDM receivers similar to RDM-receivers, along their observed characteristics (for a similar approach, see Datta, Knox, and Bronnenberg (2018)). We match customers in the RDM group to a similar customer in the control group, based on individual customer demographics (e.g., age, gender), behavioral measures (e.g., initialization period spending, purchase frequency and recency, customer duration of relationship with the retailer, frequency and recency other traditional direct mailings sent to customer besides RDM), Mahalanobis distance algorithm with replacement. To estimate the effect of RDM, we model the purchase amount, conditional on customer's purchase incidence as follows:

$$\begin{aligned}
 \text{Purchase_Incidence}_{it} = & \beta_0 + \beta_1 \text{RDM_Treat}_{it} + \\
 & (\sum_{char=1}^{char=5} \beta_{2,char} \text{Consumer_Characteristics}_{it}) + (\sum_{dummy=1}^{dummy=14} \beta_{7,dummy} \text{Year}/ \\
 & (1) \text{Season}_{dummy}) + \epsilon_{it}
 \end{aligned}$$

We model the purchase amount conditional on the occurrence of purchase as follows:

$$\begin{aligned}
 (2) \text{Spending}_{it} = & \beta_0 + \beta_1 \text{RDM_Treat}_{it} + (\sum_{char=1}^{char=5} \beta_{2,char} \text{Consumer_Characteristics}_{it}) + \\
 & (\sum_{dummy=1}^{dummy=14} \beta_{7,dummy} \text{Year}/\text{Season}_{dummy}) + \epsilon_{it} \\
 \text{if } \text{Purchase_Incidence}_{it} = & 1
 \end{aligned}$$

RESULTS

Our show a positive and significant impact of RDM on customer purchase incidence ($\beta=.11$, $p<.01$). However, the RDM is not successful in increasing the customer purchase amount ($\beta=.01$, $p>.1$). This shows that although RDM are effective in triggering customer to come to store and make a purchase, while they do not affect customer purchase amount. In addition,

we observe that there exists heterogeneity in the RDM treatment effects. In particular, the negative significant coefficient of the transaction-oriented RDMs ($\beta_{RDM*transaction_pi} = -.07$, $p < .01$; $\beta_{RDM*transaction_spending} = -.11$) indicates that a relationship-oriented RDM has a higher impact on purchase outcomes than a RDM transaction-oriented RDM. This is in line with the finding of where they found that relational mailings yielded a higher value than current promotional mailings (Gázquez-Abad, Cannière, and Martínez-López 2011). We also see that the effect of RDM on purchase outcomes varies across customers. Most notably, the impact of RDM is higher on customer who receive more frequently the traditional direct mailings ($\beta_{RDM*FrequencyDM_pi} = .13$, $p < .01$; $\beta_{RDM*FrequencyDM_spending} = .14$). In addition, a customer of higher age seems to be less responsive RDMs ($\beta_{RDM*age_pi} = -.003$, $p < .01$).

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