Advertising and Targeting: Who to Target When, Where and With What?

Evert de Haan
University of Groningen
Rene Laub
Goethe University Frankfurt

Advertising and Targeting: Who to Target When, Where and With What?

Session Chairs:

Evert de Haan (Goethe University Frankfurt)

Rene Laub (Goethe University Frankfurt)

Included Papers:

1. **Timing Customer Reactivation Initiatives**

   Niels Holtrop (Maastricht University)

   Jaap Wieringa (University of Groningen) - Presenter

2. **(In)consistently Creative – The Effect of Consistency and Overlap in Advertising Execution**

   Maren Becker (University of Cologne) - Presenter

   Maarten Gijsenberg (University of Groningen)

3. **Using Direct Marketing, Advertising, and Publicity to Attract Contractual Donors**

   Nhat Quang Le (Norwegian School of Economics)

   Bram Foubert (Maastricht University) - Presenter

   Kathleen Cleeren (Catholic University of Leuven)

   Barbara Briers (Vlerick Business School)

4. **Utilizing Physical Location Data to Better Understand Online Customer Journeys**

   Rene Laub (Goethe University Frankfurt) - Presenter

   Evert de Haan (Goethe University Frankfurt)

   Bernd Skiera (Goethe University Frankfurt)

All presenters have agreed to register for the conference and to present the paper if the proposal is accepted.

None of the papers has been submitted to other conference tracks, and no paper has previously been presented at EMAC.

Session Abstract

In this session four studies are brought together that focus on targeting customers. The papers vary from *when* to target customers in order to reactivate them, to with *what* messages to target them in terms of message consistency, and from *how* to target them to make them periodic donors, to *where* the customer is and has been physically to better understand the customer's position in the online path-to-purchase.

1. Timing Customer Reactivation Initiatives
Niels Holtrop (Maastricht University), Jaap Wieringa (University of Groningen)

In this study a two-step process for customer reactivation in a non-contractual setting is developed. This process first determines if the customer is inactive, and secondly determines when a customer should be targeted for reactivation, by combining existing insights from stochastic purchase models and from statistical quality control theory. This increases activity by 2.1%-points and increases revenue by 38% compared to current firm policy.

2. (In)consistently Creative – The Effect of Consistency and Overlap in Advertising Execution
Maren Becker (University of Cologne), Maarten Gijsenberg (University of Groningen)

Strong brands are built by a consistent positioning. It is unclear whether this also applies to advertising, since consistency increases recognition, but can also be perceived as boring. Initial results show that consistency indeed has an impact on advertising effectiveness, calling for managers to pay attention to these aspects when designing their campaigns in order to maximize return-on-advertising.

3. Using Direct Marketing, Advertising, and Publicity to Attract Contractual Donors
Nhat Quang Le (Norwegian School of Economics), Bram Foubert (Maastricht University), Kathleen Cleeren (Catholic University of Leuven), and Barbara Briers (Vlerick Business School)

Contractual charity donations generate a more stable income. This study shows that especially publicity and direct marketing lead donors to migrate from non-contractual to contractual relationships. When donors are in a contractual relationship they become more responsive to communication efforts from the charity. All of this can help increase donor's lifetime value.

4. Utilizing Physical Location Data to Better Understand Online Customer Journeys
Rene Laub (Goethe University Frankfurt), Evert de Haan (Goethe University Frankfurt), Bernd Skiera (Goethe University Frankfurt)

Studies which focus on the customer journey include either individual online user data or aggregate on- and offline data. Using a unique dataset, the on- and offline journey of customers is investigated by combining online browsing behavior with GPS information. The authors find that a user location does help predict a user's future browsing behavior and interest.

Included Papers

1. Timing Customer Reactivation Initiatives

Niels Holtrop (Maastricht University), Jaap Wieringa (University of Groningen)

Firms increasingly focus their attention on regaining customers considered 'lost' to the firm, instead of focusing on the expensive acquisition of new customers. While identifying 'lost' customers is straightforward in contractual settings, the unobserved attrition in non-contractual settings provides a barrier to identifying which customers are inactive. Once identified, a second challenge is moving these inactive customers to an active purchasing state. This two-step process is termed *customer reactivation*. Customer reactivation thus requires firms to identify *when which* customer is inactive, and approach them with a reactivation initiative, usually an advertising e-mail reminding the customer of the firm. While various practical tips exist to assist managers, academic guidance on customer reactivation is lacking. In this study we aim to address this shortcoming by providing a method to effectively target reactivation messages, and testing the efficacy of this method in the field.

Existing statistical models identify inactivity stochastically through *P(Alive)*, which prior research showed to be a poor measure of customer activity. Furthermore, these models do not operate in calendar time as managers do, lacking information about *when* to target customers. To address these shortcomings, we develop an approach to time customer reactivation messages at the individual customer level, combining existing behavioral insights from stochastic purchase models with those from statistical quality control theory. Building on the control chart approach from the latter field, we develop a gamma-gamma control chart, which models customer inter-purchase time (IPT). Based on historical purchase data, we develop a dynamic model that automatically updates once new customer purchase information becomes available. Beyond modeling the average IPT of customers, the variation in IPT is also taken into account, providing an upper bound to customer (in)activity. Once this upper bound is crossed (i.e. a customer has purchased longer ago than we would expect, and could thus be inactive), the control chart gives a signal indicating that a customer has turned inactive. This is when a reactivation initiative should be taken.

A field-test in the greetings and gifts industry illustrates the approach, and confirms its efficacy. Comparing our proposed approach to current firm policy of sending a reactivation message after two months and to a control group, we establish superior activity when using our proposed approach. The control chart approach increases activity by 2.1 percentage points compared to current firm policy, and 3.5 percentage points to the control group. Additionally, our approach has a 111% larger incremental activity impact and yields an incremental revenue increase of 38% compared to the current firm policy, showing the economic impact of our approach. Finally, we establish that targeting customers earlier than their expected purchase time can be detrimental, as activity drops significantly in this case compared to customers targeted on time. Sending reactivation messages too late does not change the effectiveness of these messages.

2. (In)consistently Creative – The Effect of Consistency and Overlap in Advertising Execution

Maren Becker (University of Cologne), Maarten Gijsenberg (University of Groningen)

It is generally assumed that strong brands are built by a consistent positioning while at the same time keeping a distance from competitors (e.g., Keller 2008). As such positioning is largely shaped by the brands' communication with consumers, one may assume that ad

messages should be consistent over time (similar to its previous ads) and different from competitor ads. While we know that this holds for the main brand message, which includes information about the brand's target audience or central benefits (Becker, Wiegand, Reinartz 2019; Pauwels 2016 et al.), it is unclear whether this also applies to the advertising execution, the manner in which the advertiser conveys the brand message (visually, verbally, and conceptually). Should brands use similar creations over time or should they adjust the ad execution for different campaigns? Similarly, should ads employ a unique execution compared to their competitors or allow for some overlap?

Figure 1: Examples of advertising campaigns
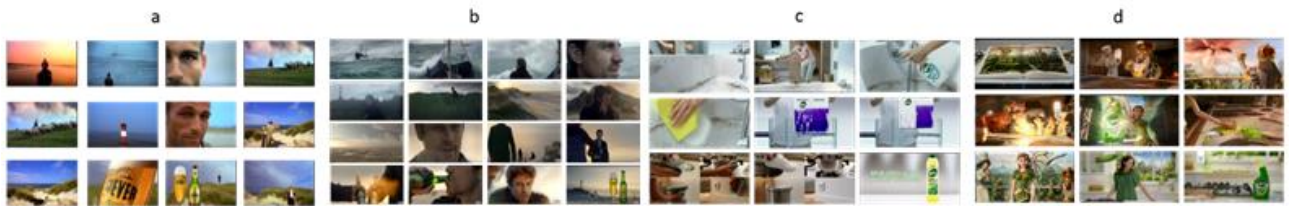
In real life, advertisers seem to follow different strategies for consistency and overlap in advertising executions. For example, the German beer brand Jever employs very similar executions in all its advertisements (see picture a and b in figure 1); while the household detergent brand Cif tends to vary its execution (see picture c and d in figure 1). Furthermore, whereas one of Cif's ads shows considerable overlap with other ads in the category (picture c), the other ad by Cif is rather unique (picture d).

A consistent ad execution creates and reinforces a unique and memorable brand image for consumers (Brown, Kozinets, and Sherry 2003). Strong brands are built by consistent long-term communication support (Keller 2008). Additionally, a consistent ad execution should help consumers to retrieve and activate their existing brand knowledge more effortlessly (e.g. Albrecht and Myers 1995; 1998; Wyer 2004). Moreover, consumers may be more likely to recognize the brand when the execution remains consistent. This recognition is important: If consumers fail to register the advertised brand correctly, huge marketing investments will be wasted without any sales effect (Rossiter and Bellman 2005).

However, using a consistent ad execution over time might also be perceived as boring, whereas variation in the ad execution generates surprise and captures consumers' attention (Tellis 2004). The latter is an important goal of advertisers given the mounting ad clutter (Danaher, Bonfrer, Dhar 2008). In addition, advertisers may adjust their execution depending on the ad's goal (e.g., providing information vs. engaging the consumer).

Advertisers do not only have to consider their own execution, but also the execution of competitor brands. The overarching goal is to avoid overlap with their competitors to create a distinct position in consumers' minds and to prevent competitive interference (e.g., Aaker 1996; Keller 2008). However, is overlap always a problem? To a certain point overlap could even be expected, since the execution must fit the product category. That is brands of the same category often employ similar executional cues (e.g., most soft drink brands rely on creativity, and most perfume brands on emotional appeals). Creating an advertisement that is very differnt from other ads in the category might thus confuse consumers.

We provide insights to these issues based on an analysis of 33 brands and 193 advertisements across three fast moving consumer good categories in Germany over a period of almost four years. The data set contains weekly sales and corresponding marketing mix information, including price, in-store promotions, and advertising spending across four media types (i.e., television, Internet, billboard, and print). First, to quantify the effects of the different

executive cues, several independent experts evaluated all ads in our sample in an extensive coding task. Next, we use this coding information as input to calculate the consistency and overlap measures. We then implement an advertising response model that captures the effect of advertising on sales, and subsequently model the effect of advertising as a function of the consistency and overlap measures. Initial results show that consistency and overlap indeed have an impact on advertising effectiveness, calling for managers to pay attention to these aspects when designing their advertising campaigns in order to maximize their return-on-advertising.

3. Using Direct Marketing, Advertising, and Publicity to Attract Contractual Donors

Nhat Quang Le (Norwegian School of Economics), Bram Foubert (Maastricht University), Kathleen Cleeren (Catholic University of Leuven), and Barbara Briers (Vlerick Business School)

To avoid volatility in the income stream and facilitate financial planning, charities increasingly rely on marketing communication to convert their existing donors into "contractual" contributors, making fixed periodic payments (Klein 2016). While non-contractual donorship only entails discrete ad-hoc donations, contractual donation occurs automatically and on a periodic basis (Thomas, Feng et al. 2015). For example, a donor can use direct debit payments in which he/she gives the charitable organization permission to withdraw the agreed amount of money periodically. In the UK, direct debit is one of the most common ways of donating money to charity (Charities Aid Foundation 2018). Both contractual and non-contractual relationships may be profitable, but contractual relationships help to reduce risk and generate steady revenue streams (see Tarasi, Bolton et al. 2011). Still, in addition to persuading donors to adopt a contractual donation scheme, charities keep on investing heavily in marketing campaigns to solicit incremental ad-hoc donations, from non-contractual as well as contractual donors (Tubesing 2014). This context leads to a number of challenging questions for managers: What are the relative effects of different communication channels (i.e., direct marketing, advertising, and publicity) on donors' transition from a non-contractual to a contractual relationship? Do donors increase or decrease their total spending after migrating to a contract? And does a contractual relationship influence the effects of communication efforts on additional ad-hoc donations?

Surprisingly, despite the growing academic interest in charity marketing (e.g., Botner, Mishra et al. 2015, De Bruyn and Prokopec 2017), no donation research to date has investigated mixed settings with both non-contractual and contractual donors, and movements from one state to the other. In addition, most previous research that models actual donation behavior, has largely focused on the effects of direct mailing – assuming that an individual only makes a donation in response to a direct appeal – and has ignored the impact of other communication channels such as advertising and publicity (Donkers, van Diepen et al. 2017). However, with the advent of the General Data Protection Regulation (GDPR) and increased control over the direct correspondence with individuals, many charities have moved their attention back to mass communication (Hazelton 2017). Furthermore, not-for-profit organizations often cannot afford the costs of advertising and direct marketing campaigns, and therefore run inexpensive public-relations (PR) programs – some even hire PR managers – to raise awareness and encourage donations (Hamilton 2014).

On the basis of monthly transaction data for about 7,800 donors of a human-rights charity, we model donors' decisions (a) whether or not to become a contractual donor (contractual incidence), (b) if so, how much to donate on a recurring basis (contractual amount), (c) whether or not to make any non-contractual payment (non-contractual incidence), (d) and if so, how much to donate (non-contractual amount). We investigate how direct marketing,

advertising, and publicity affect these four decisions, and how the contractual donation decisions (a) and (b) influence the process underlying the non-contractual donation decisions (c) and (d). We use binary probit models for the incidence decisions, and ordered probit models for the amount decisions. Our models account for latent donor heterogeneity and the endogeneity of the communication variables and contractual donorship.

Our results show how especially publicity and direct marketing, and less so advertising, lead donors to migrate from non-contractual to contractual relationships. Once in a contractual relationship (and irrespective of the contractual amount), donors decrease the frequency and amounts of their non-contractual donations, which can be explained on the basis of mental budgeting and licensing principles (Heath and Soll 1996, Khan and Dhar 2006). Importantly, however, contractual payments largely compensate for this decrease in non-contractual spending. Furthermore, we find that donors in a contractual relationship become more responsive to communication efforts: donors who adopt a contract enhance their involvement with the charity (Garbarino and Johnson 1999), such that they are more likely to attend to any relevant communication. Specifically, adopting a contract reinforces the positive effects of direct marketing and publicity and the negative effect of advertising on non-contractual donations. The overall meager advertising effects can be attributed to overhead aversion, which implies that donors are reluctant to donate to charities with high administrative and fundraising costs (Gneezy, Keenan et al. 2014).

Through a series of counterfactual simulations, we demonstrate how enhanced direct marketing and especially publicity efforts increase the lifetime value of the donor base by luring more donors into a contractual relationship such that they start spending more and become more responsive to subsequent communication efforts. We also show how increased direct marketing efforts are most effective when targeting non-contractual donors.

4. Utilizing Physical Location Data to Better Understand Online Customer Journeys

Rene Laub (Goethe University Frankfurt), Evert de Haan (Goethe University Frankfurt), Bernd Skiera (Goethe University Frankfurt)

Customers engage with companies in their customer journey through various touchpoints (e.g. Li and Kannan 2014), using different types of devices (e.g. De Haan et al. 2018) through different types of media (e.g. Edelman and Singer 2015) and in person via in-store visits (e.g. Verhoef, Kannan and Inman 2015). Understanding the stage of the customer in the customer journey is a crucial task for marketers, since different types of advertising are most appropriate in terms of effectiveness in different stages (e.g. Lambrecht and Tucker 2013, Bleier and Eisenbeiss 2015). A challenge when investigating the customer journey is that this journey is scattered, where some parts are easily observed at the individual level, like ad impressions and website visits (Li and Kannan 2014), while other parts, like offline touchpoints such as store visits, are largely unobserved and are only available as an aggregate number like the total store visits per day, so that we cannot include them. Therefore, most studies either use aggregate level data to include both online and offline touchpoints (e.g. De Haan et al. 2016, Wiesel et al. 2011) or they use individual level data and then limit their analyses to the online customer journey (e.g. Li and Kannan 2014, Anderl et al. 2016).

As a result, little is known about the interplay of off- and online touchpoints at the individual customer level. Yet, such knowledge is especial crucial for products where much show- and web-rooming is going on and a store visit does not necessarily mean that the customers is at the end of the customer journey. We therefore aim (1) to integrate the off- and online touchpoints of individual users by combining online browsing information with the user's GPS information.

The integration of the off- and online information enables us then to (2) analyze how a user's online behavior change after visiting a physical store.

We analyze the off-and online behavior of 3,187 users in five major German cities (Berlin, Cologne, Frankfurt, Hamburg, Munich) from January 2015 till November 2016 and analyze in our empirical study the journey for users interested in cars. The data set was provided by a major premium publisher network and contains information about user's visits to car-related and non-car related websites, received banner advertising (including car related advertising) as well as a user's device usages. For users browsing on their smart phones, the location based on GPS-data is also available. The authors use this information to derive their proximity to physical car dealers. We define a touchpoint as an individual combination of channels (visits to car-related websites, visits to non-car related websites, banner advertising impressions by car manufacturers and visits to car dealers), user and a unique timestamp, which leads to a total of 623,239 touchpoints.

In a first step, we investigate how visiting a car dealer affects users' subsequent visits to car related websites and the display of car-related banner advertising impressions. For the analyses, the authors conduct a series of difference-in-differences analyses using a random-effects model for panel data to account for differences in characteristics of users. Users being in a distance of less than 60m to a car dealer are coded as "visitors" to car dealers and serve as the treatment group. Users in a radius of more 120m and below 180m serve as control group. The control group of users is in the proximity of a car dealer, i.e. in the same neighborhood, and therefore comparable with the treatment group, but are most likely not actually visiting the car dealer. We use varying time windows of 1-, 2-, 4- and 8-weeks before and after visiting the location, as Table 1 shows. The authors observe a significant increase in receiving car-related display banner advertising after visiting a car dealer (see Table 1, After*Treatment). This first finding can be an indication that car manufacturers already target these users after store visits. At the same time, we observe no significant change for these users for number of visits to car-related websites. This second finding can be an indication that users in the treatment group are already at the end of their customer journey, when visiting a brick-and-mortar store, and targeting these users with car advertising is a potential waste of money.

Table 1: Effects from difference-in-differences analyses

Dependent Variable:	Display of Car related Banners				Visit to a Car related website			
Timeframe after visits in weeks	1	2	4	8	1	2	4	8
Treatment	n.s.	n.s.	n.s.	n.s.	n.s.	n.s	n.s.	n.s.
After	(-)***	(-)***	(-)***	(-)***	(+)**	(+)***	(+)***	(+)***
After*Treatment	(+)*	(+)**	(+)***	(+)***	n.s.	n.s.	n.s.	n.s.

*** = p < .0001, ** = p < .001, * = p < .01, n.s. = p > .05

We show that advertisers can integrate on- and offline information in order to better understand where the customer is in the customer journey. As a next step the authors will further decompose the customer journeys to an individual level by analyzing recency, frequency and clumpiness of touchpoints per user. The authors furthermore plan to extent the analyses to other products, respectively other industries (like travel and banking), include more cities, and also investigate click-through rates and conversions.

References

Aaker, D. A. (2012). *Building strong brands*. New York: Simon and Schuster.

Albrecht, J. E., & Jerome L. Myers (1995). Role of context in accessing distant information during reading. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 21 (6), 1459-68.

Anderl, E., Becker, I., Von Wangenheim, F., & Schumann, J. H. (2016). Mapping the customer journey: Lessons learned from graph-based online attribution modeling. *International Journal of Research in Marketing*, *33*(3), 457-474.

Becker, M., N. Wiegand, & W. J. Reinartz (2019). Does it pay to be real? Understanding authenticity in TV advertising. *Working paper*.

Bleier, A., & Eisenbeiss, M. (2015). Personalized online advertising effectiveness: The interplay of what, when, and where. *Marketing Science*, *34*(5), 669-688.

Botner, K. A., A. Mishra, & H. Mishra (2015). What's in a Message? The Longitudinal Influence of a Supportive Versus Combative Orientation on the Performance of Nonprofits. *Journal of Marketing Research,* 52(1), 39-55.

Brown, S., R. V. Kozinets, & J. F. Sherry Jr. (2003). Teaching old brands new tricks: Retro branding and the revival of brand meaning. *Journal of Marketing*, 67 (3), 19–33.

Charities Aid Foundation (2018). CAF UK giving 2018: An overview of charitable giving in the UK. www.cafonline.org, CAF.

Danaher, P. J., A. Bonfrer, & S. Dhar (2008). The effect of competitive advertising interference on sales for packaged goods. *Journal of Marketing Research*, 45 (2), 211–25.

De Bruyn, A., & S. Prokopec (2017). Assimilation-contrast theory in action: Operationalization and managerial impact in a fundraising context. *International Journal of Research in Marketing*, 34(2), 367-381.

De Haan, E., Kannan, P. K., Verhoef, P. C., & Wiesel, T. (2018). Device switching in online purchasing: Examining the strategic contingencies. *Journal of Marketing*, *82*(5), 1-19.

Donkers, B., M. van Diepen, & P. H. Franses (2017). Do charities get more when they ask more often? Evidence from a unique field experiment. *Journal of Behavioral and Experimental Economics*, 66, 58-65.

Edelman, D. C., & Singer, M. (2015). Competing on customer journeys. *Harvard Business Review*, *93*(11), 88-100.

Garbarino, E., & M. S. Johnson (1999). The Different Roles of Satisfaction, Trust, and Commitment in Customer Relationships. *Journal of Marketing*, 63(2), 70-87.

Gneezy, U., E. A. Keenan, & A. Gneezy (2014). Avoiding overhead aversion in charity. *Science*, 346(6209), 632-635.

Hamilton, D. (2014). How-to guide: public relations for charities on a shoestring budget. Retrieved August 28, 2018, from https://www.theguardian.com/voluntary-sector-network/2014/apr/02/public-relations-for-small-charities-guide.

Hazelton, D. (2017). Ad Infinitum - How charity media expenditure patterns are changing. Retrieved December 3rd, 2018, from https://nfpsynergy.net/blog/charity-media-spending-report.

Heath, C., & J. B. Soll (1996). Mental Budgeting and Consumer Decisions. *Journal of Consumer Research*, 23(1), 40-52.

Keller, Kevin Lane (2008). *Strategic brand management*, *3rd ed*. Englewood Cliffs, NJ: Pearson Prentice Hall.

Khan, U., & R. Dhar (2006). Licensing Effect in Consumer Choice. *Journal of Marketing Research*, 43(2), 259-266.

Klein, K. (2016). Fundraising for Social Change. Hoboken, New Jersey, Johan Wiley & Sons.

Lambrecht, A., & Tucker, C. (2013). When does retargeting work? Information specificity in online advertising. *Journal of Marketing Research*, *50*(5), 561-576.

Li, A., & Kannan, P. K. (2014). Attributing conversions in a multichannel online marketing environment: An empirical model and a field experiment. *Journal of Marketing Research*, *51*(1), 40-56.

Pauwels, K., B. Sud, R. Fisher, & K. D. Antia (2016). should ads be consistent over time or change with the market? Evidence for young and established brands of minivans. *Marketing Sciene Institute Working Paper*, Report No.16-105.

Rossiter, J. R., & S. Bellman (2005). *Marketing communications: Theory and applications*. Frenchs Forest, Australia: Prentice Hall.

Tellis, G. J. (2004). *Effective advertising: Understanding when, how, and why advertising works*. Thousand Oaks, CA: Sage Publications.

Tarasi, C. O., R. N. Bolton, M. D. Hutt, & B. A. Walker (2011). Balancing Risk and Return in a Customer Portfolio. *Journal of Marketing*, 75(3), 1-17.

Thomas, S. A., S. Feng, & T. V. Krishnan (2015). To retain? To upgrade? The effects of direct mail on regular donation behavior. *International Journal of Research in Marketing*, 32(1), 48-63.

Tubesing, L. (2014). How to retain more donors through recurring giving. Retrieved January 18th, 2017, from https://www.networkforgood.com/nonprofitblog/4-ways-to-make-recurring-giving-work/.

Verhoef, P. C., Kannan, P. K., & Inman, J. J. (2015). From multi-channel retailing to omni-channel retailing: introduction to the special issue on multi-channel retailing. *Journal of Retailing*, *91*(2), 174-181.

Wiesel, T., Pauwels, K., & Arts, J. (2011). Marketing's profit impact: quantifying online and off-line funnel progression. *Marketing Science*, *30*(4), 604-611.

Wyer, R. S., Jr. (2004). The cognitive organization and use of general knowledge. In J. T. Jost, M. R. Banaji, & D. A. Prentice, *APA science series. APA decade of behavior series. Perspectivism in social psychology: The yin and yang of scientific progress* (pp. 97-112). Washington DC, American Psychological Association.

.