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Increasing the Effectiveness of Mobile Advertising by Using Contextual Information

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KEYWORDS

Mobile Advertising, Mobile Targeting, Geofencing, Real-Time Marketing

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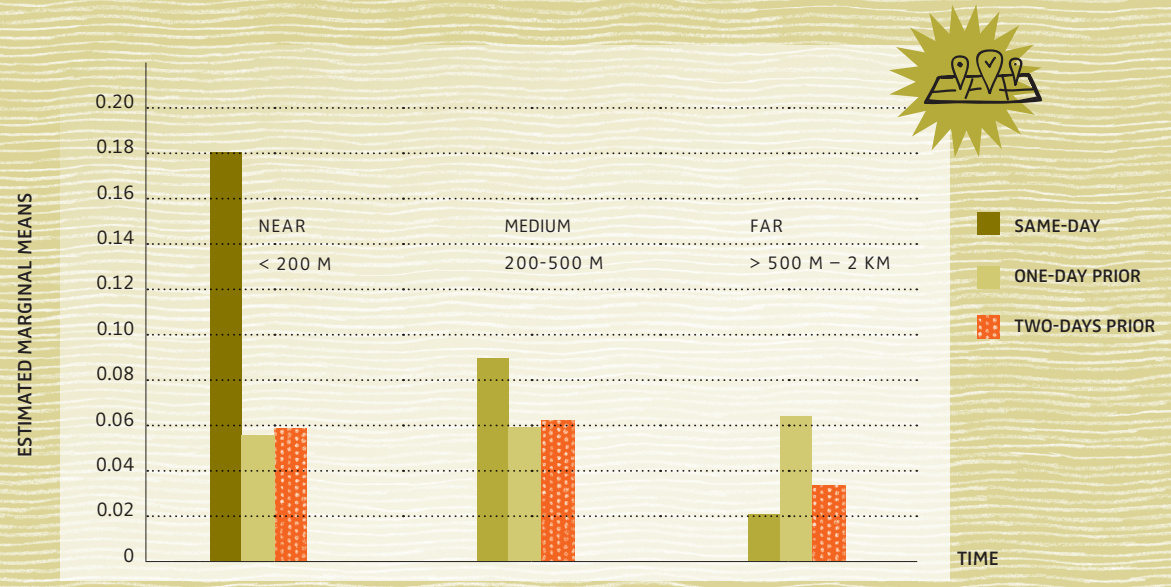
The pros and cons of reaching consumers anytime and anywhere /// Approximately 3 billion consumers worldwide own smartphones, and the number is growing fast. It's no surprise, then, that marketers are using these unprecedented opportunities to connect directly with so many people. In fact, marketers have been experimenting with different forms of mobile advertising for some years now. For instance, geofenced mobile ads are promotions sent to people who physically breach the virtual perimeter of a store and are intended to convince those nearby to come in and shop. For greater targeting precision within large stores, many venues are adopting beacon technology to deliver in-store promotions that feature maps to the promoted item for shopping ease. More recently, marketers have taken the geospatial capabilities of mobile phones a step further by launching geoconquest ads that are targeted to people detected to be near a competitor's store in order to lure them to the focal store. Yet, the catch is that as more marketers jump on the mobile bandwagon, they run the risk of alienating potential consumers by overtargeting them or targeting them at the wrong moment. This downside of the mobile medium for marketer-consumer communications has lead researchers to begin investigating the contexts under which consumers may be more responsive to mobile ads.

FIGURE 1:

Effect of mobile promotions with a combination of temporal and geographical targeting



More details on study background and results in Luo et al. 2014

Context matters: Time, space and environment

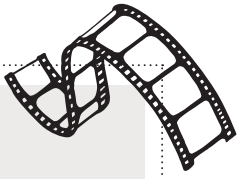
Distance. Geographically, consumers have been shown to be more responsive to promotional offers from shops or events that were located close to them. Typical geofenced promotions therefore tend to have small radii in order to be relevant to consumers.

Time. For the lead time of promotions, previous insights are similar: The closer in time, the better the response. Temporal targeting on the same day with less promotional lead time is thus considered to be an effective strategy in generating mobile sales.

Distance + Time. When considering the interplay of time and space, though, the picture becomes more complex. How do radius and the timing of mobile promotions interact? To find out, my colleagues and I recently cooperated with a movie theater. While same-day mobile promotions worked very well for the closest recipients, the effect for more remote people was surprising (see Box 1 and Figure 1). The findings confirm that mobile promotions are time-sensitive: Recipients need enough time to respond to them given their distance from the promoted venue (if the promotion is for on-site consumption), but too much time may reduce response rates. It appears that people do not plan too far in advance for events such as movie watching or with small-screen devices such as smartphones.

Environment. Another context that can affect people's response to mobile ads is that of the environment – what is going on around people. In our study of mobile promotions during subway rides, we found mobile campaigns to be more effective on more crowded trains (see Box 2 and Figure 2). Marketers should note that this finding may not hold for other situations in which people experience crowdedness. This is because in our experiment, the crowd was likely composed of strangers and there likely wasn't much else to do to occupy commuters' attention.

{*Box 1*}



OPTIMIZING MOBILE ADS TO INCREASE THEATER ATTENDANCE DURING SLOW TIMES

The problem: Our movie theater was experiencing a capacity problem typical of theaters, in which attendance varied depending on the time of day – during slow times such as early Saturday afternoons, movies were often shown to relatively empty theater seats. To fill the seats, the movie theater wondered whether sending geofenced promotions for half-priced tickets to nearby passersby shortly before the movie would help them capitalize on this missed opportunity. But what is the right clearance zone, or radius at which to set the geofence? A small radius means mobile ads would only be sent to people detected to be near the movie theater. For people within a small geofence, their proximity to the movie theater would provide them ample time to respond to the mobile promotion and arrive at the theater in time to watch the movie. For people within a larger geofence, though, their distance from the theater would demand more time to respond to the promotion and arrive at the theater in time for the movie.

The experiment: To investigate this time-distance trade-off, my colleagues and I ran a field experiment in which over 12,000 people detected to be within three increasingly larger clearance zones were randomly selected to be sent a mobile promotion for a movie showing at 4 p.m. on a Saturday. We set a small geofence at 200 meters from the movie theater, a medium geofence at between 200 and 500 meters from the movie theater and a large geofence at between 500 meters and 2 kilometers from the movie theater. We sent promotions over three days: on the same day, one day beforehand and two days beforehand. All people targeted in our study only received one promotion – either on a Thursday, Friday or Saturday at 2 p.m. – and at only one distance from the theater – at either a near, medium or far distance – which depended on where they were detected to be when they received the mobile promotion.

The results: It turns out, for people within close proximity to the movie theater, mobile promotions with little lead time were most effective. In other words, the more lead time people located close to the movie theater had, the less likely they were to redeem the promotion. Persuading last-minute decisions to watch a movie seemed to be the best mobile ad strategy in that case. For people farthest from the movie theater, we expected the opposite: The more lead time they had, the more likely they would be to respond to the mobile promotion due to the greater amount of planning and travel time they were given. However, this did not appear to be the case. Rather, for people located farthest from the movie theater, those who received the mobile promotion with one day's notice were more likely to respond to the promotion compared with those who received it on the same day or with two days' notice (Figure 1).

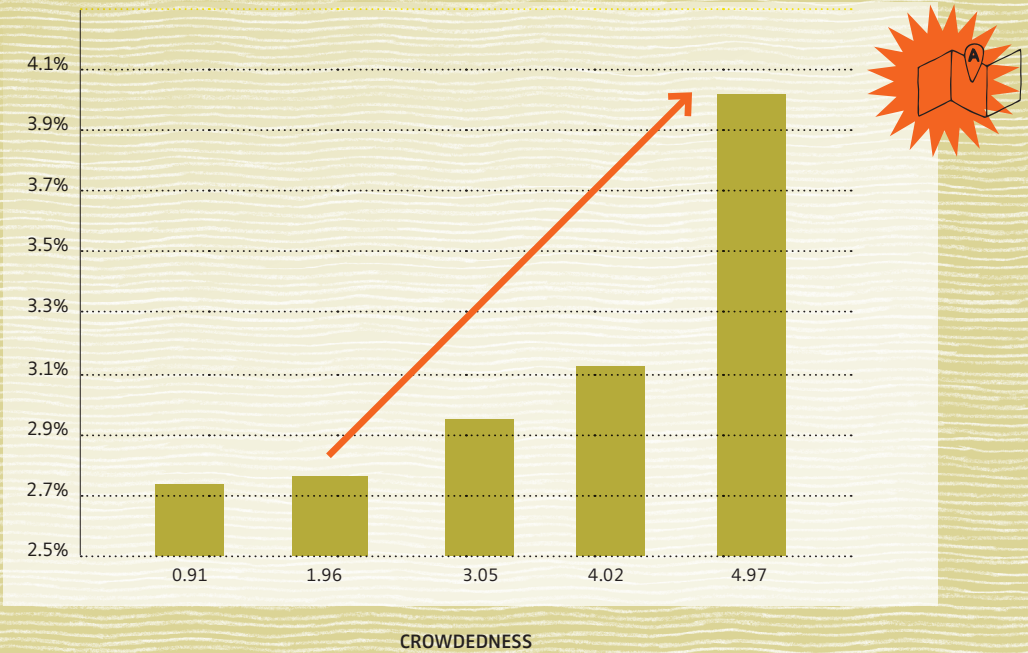
{*Box 2*}

HOW THE CROWDEDNESS ON A SUBWAY RIDE INFLUENCES THE IMPACT OF MOBILE ADS

The contextual question we asked in this study was whether the crowdedness of someone's environment can influence their likelihood of responding to a mobile ad. To answer this question, my colleagues and I sent mobile promotions to over 10,000 commuters in a cellular-enabled subway system of a large Asian city over the course of several days. We found that the more crowded the subway, the more likely commuters were to respond to the mobile ad, even when controlling for a host of potential influencers such as the time of day and day of week. When crowdedness doubled from 1.96 passengers/m2 to 4.02 passengers/m2, the likelihood of mobile purchases increased by 16.0 %, and when crowdedness spiked even more to 4.97 passengers/m2 it jumped by 46.9 % (see Figure 2). On average, commuters in crowded subway trains were about twice as likely to respond by making a purchase vis-à-vis those in uncrowded trains. It's possible that during a crowded subway ride, commuters virtually get away from their physical surroundings by mentally escaping into the personal space of their mobile phones, which in turn may make them more receptive to mobile ads.

FIGURE 2:

Crowdedness and purchase rates of a promoted telecommunication service



More details on study background and results in Andrews et al. 2016

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In other instances of crowding, such as at a crowded sporting event or in a crowded restaurant, people's attention tends to be occupied by the game or their friends. They may therefore be more resistant to mobile ads received in other types of crowded environments.

Understand context for better results /// When it comes to mobile advertising, perhaps the most important key is that context matters. Understanding where potential recipients of mobile messages are, who they are with, what is going on around them and how much time they would need to consider a mobile promotion represent critical questions that each add a layer of complexity to the mobile advertising formula. But, their answers can help marketers become better gatekeepers by delivering the right mobile ad to the right person at the right time at the right place in the right context. Difficult as it may be, accomplishing that task may help keep consumers interested in mobile promotions and produce loyal consumers for mobile marketers.

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