Interactive vs. Static Location-based Advertisements

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Abstract

Our research is focused on analysing how users perceive different mediums of advertisements on their mobile devices. Such advertisements are also called location-based advertisements (LBA’s) as they relay brand and product information to mobile phones that are in the vicinity. We investigated two different ways of presentation marketing information (static vs. interactive). Our results clearly showed that interactive (clickable advertisement with additional information) LBAs were preferred to static LBAs.

Keywords: Location-based ads, mobile commerce

1 Introduction

Location Based Advertising is a new form of marketing communication that uses location-tracking technology in mobile networks to target consumers with location-specific advertising on their mobile phones (Unni & Harmon, 2007). Because of the mobility that these devices have nowadays, advertisements can be personalized for specific consumers and sent to them based on their geographical location (Gratton, 2002).

Previous research into using LBA for marketing messages are rather scarce and have focused on technological issues, for instance the research by Ververidis and Polyzos (2002) who developed a software prototype and an information system for LBA. Other related research has focused on the success or acceptance of LBA by consumers as compared to traditional media. Heinonen and Strandvik (2003) found that consumers are open to this new form of advertising but their research showed lower responses towards LBA than towards traditional media.

One perspective that has not yet been used often in the research into LBA is the design and amount of information presented in such advertisements. The mobile advertisements that most of today’s smartphone users know consist of a one-page screen. Almost all of these LBAs are non-interactive and on one page all the information is given about the promoted item. Schrum, Lowrey and Liu (2009) explain that when consumers view a banner ad on a website, they can, depending on the level of interest, either ignore the advertisement completely, notice and view the advertisement without taking any further steps or they can click on the advertisement to access a deeper layer of information.

Research by Liu & Schrum (2009) has shown that interactivity in marketing is considered to have a positive influence on persuasion. Their research showed that in case of low task evolvement, the mere presence of interactivity served as a peripheral cue that led to more positive attitudes. In LBA, interactivity can be implemented by deepening the levels of information that is accessible. Consumers that have higher levels of interest in the advertised product can gather more information while only viewing the ad, before taking further steps towards purchasing the product. From a design perspective, making LBAs more interactive would mean making them dynamic e.g. having a more active design to accommodate buttons or links which could lead to additional information within the advertisement. Research of Liu & Schrum suggests that the presence of interactivity and deeper levels of information attracts more interest than static pages. Schrum, Lowrey and Liu (2009) indicate that personalized and customised marketing content is appreciated by consumers because they have access to more information and they can choose what is important or relevant for them. This leads to the following hypothesis:

H1: The more information LBAs contain, the more persuading they will be.

H2: Interactive LBAs are rated higher on overall liking than static Location Based Advertisements (LBAs).

2 Method

For this study, the product category of fast food (food chain: Subway®) was chosen as the domain of research. The stimuli that were used in the experiment were Location Based Advertisements for four different types of Subway sandwiches. These advertisements were designed for an iPhone. Of every sandwich, two advertisements were created: One static advertisement (one page) and one dynamic advertisement (see Figure 1).

Presenting the information in the new interactive LBAs can be done in different ways. Research by Schaffer et al. (1996) suggests that for websites and other more intricate interfaces, a fisheye style of navigation is preferred over a full zoom style (full page) of navigation. The fisheye style zooms in on a small part of the interface, leaving the context and structure visible. Translated into the LBAs in this study, the fisheye style would result in a small pop up screen, leaving the rest of the advertisement visible in the background.

In our experiment, the interactive advertisement (pop-up), unlike the static one, displayed nutritional information such as what is on the sandwich and how many calories, fat, carbohydrates and proteins it contains. In the case of the interactive advertisement, clicking on the sandwich resulted in a pop-up window with more information about that sandwich. The target group
consisted of students and young professionals between 18 and 35 years old. A total of 20 participants participated in the experiment and they were selected after a survey where their experience with smartphones, fast food products and knowledge of the brand Subway was measured.

The randomized experimental study had a within subject design: half of the participants saw the static version first and other half saw the interactive version first. In order to make the interaction with the LBAs seem as natural as possible, participants were presented with a scenario e.g. it is around lunchtime while you are out for a day of shopping. After this scenario, different LBAs were presented to them on an iPhone. A questionnaire, consisting of four variables: Professionalism/Trust, Information Level, Overall Liking and Purchase Intention, was used to measure the acceptance and appreciation of LBA’s. At the end, a semi-structured interview was conducted.

**Table 1: Mean, p and t values for four measurements**

<table>
<thead>
<tr>
<th></th>
<th>Static</th>
<th>Pop-up</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trust</td>
<td>5.28</td>
<td>5.74</td>
<td>t(18)=3.03</td>
<td>&lt;.05</td>
</tr>
<tr>
<td>Informative</td>
<td>3.80</td>
<td>6.0</td>
<td>t(18)=7.14</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Purchase intention</td>
<td>3.92</td>
<td>5.60</td>
<td>t(18)=3.16</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>Overall Liking</td>
<td>5.57</td>
<td>6.61</td>
<td>t(18)=9.03</td>
<td>&lt;.001</td>
</tr>
</tbody>
</table>

**Figure 1: Two visualization techniques**

### 3 Results

The data of the experiment have been analysed by comparing the means scores of different variables using a paired sample T-test. All details of results are presented in the table 1. The results clearly show that for all categories the interactive pop-up advertisement was preferred over the static one.

### 4 Discussion and Conclusion

In general, interactive LBAs were considered to be more professional, trustworthy, and informative than static LBAs. The overall liking for interactive LBAs was clearly higher than the static LBAs. For the participants purchase intentions, the pop up version showed a significant and very high increase between static and interactive with a very large effect size. This also confirms the first hypothesis. During the interviews, participants also stated they were very pleased with the possibility to read more about the product if they so desired than simply see a picture, a name and a price. These results are in line with Schrum, Lowrey and Liu (2009), who have indicated that the possibility to browse through more information creates a more personalized and customized marketing content. We were also able to confirm the second hypothesis. Participants liked the navigation options for the dynamic LBAs and stated that it made the advertisement more attractive. Not only did the participants find the dynamic LBAs more likeable, they also found them to be more informative, intelligible and professional. The confirmation of this hypothesis is congruent with the research of Liu and Schrum (2009) that indicates that the mere presence of interactivity attracts more interest than the static pages.

Our research has confirmed the hypothesis that interactive LBAs are preferred over static ones and most importantly additional information in the form of a pop-up screen enhances purchase intention. In the future we would like to extend our research by investigating LBA’s for products external to the food industry e.g. clothing. We would also like to explore different visualization techniques for showing additional information. We would also like to clarify that essentially our findings could also apply to in general any mobile displays and not necessarily location based advertisements. In addition, a limitation of our study was that it was “lab-based” and not conducted in a real outdoor environment.

### 5 References


