Negative influence of advertisement on Instagram: the moderating effect of promotion

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Abstract
Social network services (SNS) such as Instagram is one of the fast growing platform where people can share photos with others. However, the advertising effect on Instagram is still unknown. The objective of this study is to understand the negative impact of advertisement on Instagram, as well as the role of promotions in this impact.

A scenario-based experimentation was conducted in this study. The impacts of privacy concern, irritation, and intrusiveness of advertisement were measured. The results suggested that intrusiveness showed a great influence on the user's advertising attitude. At the same time, it's also found that when users face a new type of advertisement format, there is an unclear advertising attitude. However, in the scenario of promotion, the subject had a significant influence on the irritation of advertising. Such research findings will provide advertisers with a reference for developing advertising strategies.

Keywords: Advertising formats, promotions, Advertising effectiveness, Purchase intention, Behavior

Introduction
With the advancement of Internet technology, mobile devices have played an important role in our daily life. The growth of mobile device users has attracted more investment of marketing budget mobile devices. Among the huge amount of applications on mobile devices, the social network system (SNS) is one of the most popular application people rely on to maintain their social networks. Thus, the users of SNSs such as Facebook, LINE, WeChat and Instagram are growing rapidly and the advertising budget is also increasing.

In general, mobile advertising and Internet advertising have many features in common—both are emerging media used to deliver digital texts, images, and voices with interactive, immediate, personalized, and responsive capabilities (Yoon and Kim 2001). At present, about 2 million advertisers worldwide share their brand story through Instagram. Businesses can also take advantage of unique advertising formats to deliver messages to users around the world and successfully create business opportunities.
In the past few years, the most popular social media was Facebook and the number of users changed to 2 billion people in 2017 (Technews 2017). However, in recent years, Facebook's young users have gradually disappeared, showing the trend of the elderly. Coupled with the recent issue of privacy, Facebook is faced with a bigger issue of user loss (Gao 2018). These young users are gradually turning to Instagram. In 2016, Instagram introduced a new type of advertisement format—the Instagram Dynamic Ads—which automatically showed people ads featuring items they’ve expressed interest in. However, the advertising effectiveness of this new advertisement format on Instagram is still unclear. Thus, the objective of this study is to understand the negative impact of advertisement on Instagram such as the privacy concern, irritation, and intrusiveness.

**Literature Review**

**Attitudes toward advertising**

With regard to the audience's reaction, the attitude towards advertisements is a widely used concept for measuring the effectiveness of various advertisements, including offline advertisements and online advertisements (Hadija et al. 2012; Smit 1999; Tutaj and van Reijmersdal 2012). Many scholars believe that the amount of information and the timing and manner of presentation of advertising content have a strong relationship with the formation of advertising attitudes (Alwitt and Prabhaker 1994; Mittal 1994). Consumers usually feel that the content of advertisements will interfere with their privacy or influence what they are doing (Tsang et al. 2004). In the past, many studies have found that advertising credibility, advertising awareness will have an impact on advertising attitudes, may be due to the content of advertising or contextual factors (Lutz et al. 1983; Petty 2018). Therefore, the purpose of this study is to investigate whether there is a change in the formation of advertising attitudes in mobile device advertising and community advertising.

**Privacy concern, irritation, and intrusiveness**

**Privacy concern**

The privacy issues in social networking sites mainly include the risk that social networking sites do not prompt users to disclose personal information, the privacy protection tools are not flexible, users cannot prevent others from leaking information, and community site operators can access user information without restrictions (Ho et al. 2009). However, it is still widely disclosed in personal files and the use of personal profile privacy settings is low (Acquisti and Gross 2006; Debatin et al. 2009; Ellison 2007). In summary, it is limited to a wide range of social media, in order to allow respondents to clearly understand the definition and connotation of social media in this study.

**Irritation**

In past studies, advertising irritation were thought to lead to a decrease in advertising effectiveness. The advertising irritation contains the following dimensions: Interference in personal privacy (Sipior and Ward 1995), patterns of appearance or performance of advertisements (Li et al. 2002), content of advertising media (Ha 1996). In the case of promotions, consumers may feel intrusive if they receive many unrelated commercial advertisements or have low control over these advertisement information (Milne et al. 2004). Advertising irritability is the feeling that consumers' thinking or process is disrupted by advertising when they are reading (Li et al. 2002). As a result, consumers may have a negative impact on advertising, which in turn creates an unfavorable attitude towards the brand in the advertisement. This inconvenience is considered annoying if it bothers the consumer's main purpose or the consumer therefore needs extra time to process the information (Morimoto and Chang 2006).

**Intrusiveness**

Advertisements may ultimately be considered as irritating or avoided on the basis of content, execution, or placement, these same advertisements will first be evaluated on the basis of the degree to which they interrupt the goals of viewers, or the intrusions they perceived (Bauer and Greyser 1968; Ducoffe 1995).
Conceptualizing ads as noise allows for the possibility of three communication related problems. First, ads can hinder the search for programming content, in that ads block access to programming. Second, ads can interrupt the use of programming or content and therefore be distractions from the mediated environment. Third, ads may completely disrupt the interaction with the desired content (Ha 1996; Li et al. 2002). In that some consumers view ads as noise to be filtered, the position within the advertisement seems to affect the audience's goal, and this advertising position may affect the degree to which the viewer considers the advertisement to be intrusive (Milne et al. 2004). If the advertisement is thought to be invasive, feelings of irritation are likely to occur.

**Promotions**

Consumers who had purchase because of promotions were often didn't consider to care about brands (Dodson et al. 1978). Promotions had non-negative impact on brand evaluation (Davis et al. 1992). If the promotion increases over time, then brand's share might reduce because of the brand's consumer loyalty or brand promotion (Johnson 1984).

Promotion-based advertising provides specific financial rewards to individuals who agree to receive promotions and campaigns. There are many such cases in past research. For example, mobile phone companies may reward customers with free connection time for listening to voice advertisements (Tsang et al. 2004). However, licensing-based and promotion-based advertising mechanisms are all feasible for mobile advertising because wireless technology and positioning capabilities can identify individual users.

**Methodology**

**Framework**

The objective of this study was to examine the influence of Instagram advertisement on user's attitude toward advertising.

**Experimental design and sampling**

A scenario-based experiment was conducted in this study. According to the manipulated variable (promotion: yes/no), two scenarios were designed. The stimulus of this study is to apply the layout the Instagram and two versions of dynamic advertisement (with promotional message/without promotional message) were designed. The focal product is earphone, which is one of the most popular products to be sold online.

**Data collection**

This study recruited 202 volunteers to participate and 189 of them submitted valid data. The effective response rate is 94%.

Among the all the valid sample, 117 (62%) were female and 72 (38%) were male. Most of the respondents were aged between 21–25 years old (53%), followed by below 15 years old (25%) and 26-30 years old (14%). Student sample account for 63%. The majority of respondents (63.5%) access Instagram more than 5 times every day, with a quick check of less than 10 minutes for each access. More than half of the respondents (53.4%) have clicked the advertisements on Instagram.

**Data analysis and conclusion**

Linear regression analysis was used for data analysis in this study. Three regression models were built for whole sample, and data in two different scenarios (with promotional message and without promotional message). The regression models were summarized in Table 1.
Overall, the regression models were all significant and the model explained around 30% of the attitude toward advertisement. Further, privacy concern showed no significant influence on attitude, while irritation and intrusiveness had significant negative impact on attitude. This result showed that the more people perceive the irritation and intrusiveness of the advertisement on Instagram, the more negative attitude will be formed. It is worth to note that the intrusiveness showed higher negative impact on attitude than irritation. Thus, if the advertisement appeared and disrupted the audiences’ interaction with the desired content, the advertisement effect will be negatively influenced.

In addition, two regression models were compared when the advertisement were provided with or without promotional messages. The results showed that both models were significant and explained more variance (32%) when the advertisement include promotional message than that no promotional messaged applied (26.7%). Among two groups of sample, privacy concern showed no significant impact on their attitude toward the advertisement, while irritation and intrusiveness showed negative impact on attitude. It is interesting that the negative impact of irritation is significant when the advertisement provided promotional message, while the impact disappeared if no promotion was provided. However, the negative impact of intrusiveness on attitude is another story. More negative impact of intrusiveness in no-promotion scenario was observed than that in context with promotion. Thus, if the dynamic advertisement on Instagram was delivered but no promotional message was included, the negative attitude was formed because the audience’s interaction with desired content was interrupted. When the dynamic advertisement was delivered with promotional messages, both irritation and intrusiveness are main causes for people’s negative attitude toward the advertisement.

According to the findings in this study, the following suggestions were provided. Dynamic advertisement on Instagram may form unfavorable attitudes due to people’s perception of irritation (the task or process is disrupted) and intrusiveness (the interaction with the desired content is distracted and interrupted), especially when the advertisement was delivered along with promotional messages. Thus, it is suggested that the dynamic advertisement should be designed and delivered with more attractive elements such as humor to avoid the negative impact on attitude. Further, the delivery of advertisement should also take the audiences’ current task into consideration. By taking advantage of information technology, algorithms can be used to suggest the advertisement that fits more with the audiences’ task or the content they are browsing. For example, the baby clothing advertisement appeared to the audience who is checking his/her favorite celebrity’s Instagram post with a photo of the celebrity and her 3-month old baby.

References


Table 1. Regression Analysis Result

<table>
<thead>
<tr>
<th>Predictors</th>
<th>Whole sample</th>
<th>Promotion</th>
</tr>
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<tbody>
<tr>
<td></td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Privacy concern</td>
<td>0.028</td>
<td>-0.008</td>
</tr>
<tr>
<td>Irritation</td>
<td>-0.250***</td>
<td>-0.191</td>
</tr>
<tr>
<td>Intrusiveness</td>
<td>-0.407***</td>
<td>-0.425***</td>
</tr>
<tr>
<td>R-square</td>
<td>0.317</td>
<td>0.289</td>
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<td>Adjusted r-square</td>
<td>0.306</td>
<td>0.266</td>
</tr>
<tr>
<td>F</td>
<td>28.675***</td>
<td>12.484***</td>
</tr>
</tbody>
</table>

**p<0.01; ***p<0.001
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