

## TO CLICK OR NOT TO CLICK? INVESTIGATING ANTECEDENTS OF ADVERTISEMENT CLICKING ON FACEBOOK

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Using its technological capabilities, Facebook has introduced customized and more relevant commercial messages for its growing number of advertisement-savvy users. We empirically examined the factors that influence the way in which users respond to Facebook-based advertising, using the perceived advertising values posited by Ducoffe's model and Facebook usage behavior as a basis. The results of an online survey that involved 758 participants show that users are more likely to click on Facebook-based advertising if they perceive it as informative rather than irritating. Moreover, the extent to which users depend on Facebook and participate as "fans" on brand pages positively impacts the likelihood that they will click on advertising.

*Keywords:* social network sites, Facebook advertising, perceived advertising values.

Online social networking has become a new thread that has been woven into the fabric of people's daily lives. Two-thirds of the global Internet population regularly visit social network sites (SNSs) such as Facebook, LinkedIn, and

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YouTube (Duggan & Smith, 2013). In September 2015 Facebook, the world's most popular SNS, was catering for more than 1.4 billion active users and was the world's second most visited website after Google (Alexa, 2015). Given its phenomenal popularity, Facebook has become a premier destination for international marketers, and the global advertising revenue of this SNS reached \$15.3 billion in 2014, representing an almost 41% increase over that of 2013 (Beck, 2015).

Facebook advertising comprises a number of forms including paid media (i.e., display advertisements), owned media (i.e., brand pages), and earned media (i.e., word-of-mouth). Facebook's unique social nature has placed much of its advertising emphasis on earned media, whereby brands obtain free exposure by sharing of user-generated communication, such as comments or links throughout their social networks (Chu, 2011). Therefore, a significant portion of advertising spending goes toward building and maintaining a social network presence through earned media (Williamson, 2009).

According to recent research, however, these kinds of earned media occur far more infrequently than previously supposed, and the consistent transmission of commercial messages across social networks is also a rare occurrence (Bagherjiran, Bhatt, Parekh, & Chaoji, 2010); furthermore, Tucker (2014a) has shown that advertisers may have to sacrifice the commercial effectiveness of their message to achieve the effect of going viral. Therefore, paid media, such as display advertisements, play an essential role in facilitating the sharing of marketers' commercial messages through social networks (Tucker, 2014a). In fact, the display advertisement is a key Facebook building block because this is the advertisement type that generates most of the revenue of the SNS. Display advertisements accounted for 88% and 84% of Facebook's revenue in 2013 and 2012, respectively, with one million active marketers operating on Facebook in global terms by 2014 (Nair, 2014).

Marketers have been attempting to tailor display advertisements for Facebook users based on their likes, interests, and comments. In addition, Facebook display advertisements can also pair marketers' messages to users' social actions, including their status updates (Villiard & Moreno, 2012). Thus, Facebook display advertisements provide highly relevant content based on the information that Facebook users share on their personal profiles (Lambrecht & Tucker, 2013). However, the research on display advertisements and how they are perceived and used by Facebook users is rather limited (Hadija, Barnes, & Hair, 2012; Taylor, Lewin, & Strutton, 2011). An elucidation of the way in which Facebook users respond to the display type of advertising would be beneficial for both marketers and platform providers.

Ducoffe's (1995) Internet-advertising model can be used as a theoretical framework for understanding how people respond to Facebook display

advertisements. In the model the role of advertising value is highlighted and its determinants in the context of the Internet are identified. Accordingly, in this study we focused on the perceived values of advertising—informativeness, entertainment, and irritation—and the individual differences of usage intensity and brand-page membership as the key factors influencing clicking onto display advertisements, which are the most common form on Facebook. As Facebook and its advertising are still evolving with respect to technological capabilities, achieving a comprehension of the new challenges that are relevant to advertising on Facebook and bringing about improvement of the effectiveness of this advertising are critical. Therefore, we sought to examine the antecedents of consumers' responses to Facebook display advertisements.

## **Conceptual Framework and Hypotheses**

### **Perceived Informativeness, Entertainment, and Irritation of Advertising**

In the literature on Internet advertising, a wide range of antecedents regarding consumer responses to Facebook advertising have been identified. Among many other factors, the consumer's attitude toward Internet advertising has been identified as a strong predictor of his or her behavioral response to advertising, and this response is influenced by affective (i.e., irritation and entertainment) and cognitive factors (i.e., informativeness; Ducoffe, 1996; Edwards, Li, & Lee, 2002; Wolin, Korgaonkar, & Lund, 2002), as well as behavioral experiences (i.e., purchasing; Schlosser, Shavitt, & Kanfer, 1999). These cognitive, affective, and behavioral dimensions have been studied extensively in advertising and marketing research in terms of their roles in the response of consumers to Internet advertising. Therefore, extant literature provided central guidelines for our investigation of the factors that influence consumer responses to advertisements on SNSs (Ducoffe, 1995). Ducoffe (1996) found that, with respect to Internet advertising, the values of informativeness and entertainment are positively related to its overall value, whereas the correlation of overall value with irritation is negative. Likewise, Edwards and colleagues (2002) showed that the perceived intrusiveness of pop-up advertisements, which is inversely related to the perceived informativeness and entertainment of advertisements, leads to a sense of annoyance and advertisement avoidance. These findings echo the notion that when advertisers employ techniques that annoy, offend, or are overly manipulative, consumers are likely to view the advertisements as an unwanted and irritating influence that they prefer to avoid (Ducoffe, 1996). However, advertisements that are perceived as informative and entertaining are less likely to elicit a feeling of intrusiveness (Edwards et al., 2002).

People use SNSs for information as well as for entertainment, social support, and self-expression needs (Jung, Youn, & McClung, 2007; Kim, Sohn, & Choi,

2011). Findings in a recent study on SNS advertising showed the favorable impacts of perceived informativeness and entertainment in advertising, and the negative influence of invasiveness on consumers' acceptance of, and attitude toward, SNS advertising (Taylor et al., 2011). Similarly, qualitative interviews with teenagers have highlighted irritation as a factor in advertising avoidance, suggesting that engaging advertisements are not avoided as much as dull or uninteresting advertisements are in the SNS environment (Kelly, Kerr, & Drennan, 2010).

Overall the findings in the literature suggest that, as consumers increasingly resort to SNSs for information and entertainment, perceptions of the informativeness and entertainment value of advertising may also be critical in the determination of consumers' responses to advertising—that is, either clicking or avoiding. When consumers consider an advertisement on Facebook informative and engaging, they are more likely to attend to, and click on, it than when they consider it annoying. Conversely, as consumers become increasingly savvy and skeptical, they may not click on an advertisement if they think it will be annoying, that is, the likelihood of advertisement clicking decreases as the perceived irritation of the advertisement increases. Accordingly, we formulated the following hypotheses:

**Hypothesis 1:** A positive attitude toward Facebook advertising as informative will increase the user's click behavior for Facebook display advertisements.

**Hypothesis 2:** A positive attitude toward Facebook advertising as entertaining will increase the user's click behavior for Facebook display advertisements.

**Hypothesis 3:** A negative attitude toward Facebook advertising as irritating will decrease the user's click behavior for Facebook display advertisements.

### **Facebook: Usage Intensity and Participation in Brand Pages**

Findings reported in research show that individual differences regarding Internet usage relate to differences in user attitude toward Internet advertising and associated behaviors (Korgaonkar & Wolin, 2002). In addition, advertising does not appear in isolation, and the different media vehicles where advertising is placed, such as television and radio, have differing effects on consumer responses to advertising (Aaker & Brown, 1972); therefore, the persuasiveness of a particular advertisement may vary according to the medium in which it appears.

Consumers' perceptions of Facebook may, therefore, influence their responses to advertisements on the SNS; accordingly, in this study we investigated the potential role of individual differences regarding Facebook usage in the determination of advertising persuasiveness. We expected that if consumers are strongly connected to, and habitually use, Facebook, they may be more likely to respond positively to advertisements that are featured on the SNS than would those who use Facebook less, as heavy usage has been associated with positive

attitudinal and behavioral responses (Ellison, Steinfield, & Lampe, 2007). For the reasons we have set out here, we proposed the following hypothesis regarding consumers' Facebook usage relative to their advertisement-clicking behavior:

**Hypothesis 4:** The level of Facebook usage intensity will determine the user's level of click behavior for Facebook display advertisements.

Another relevant factor that may influence consumers' responses to Facebook advertising is the nature of their engagement in brand-related activities. As a type of virtual brand community, Facebook brand pages enable companies with those brands to provide their users with news and a communication platform. Once people become interested in the issues that are discussed or provided in a brand community, typically, they want to interact with the brand pages as they do with other user profiles. In consideration of this, a Facebook user's voluntary participation in brand-page activity and his/her willingness to receive commercial messages from marketers may be closely associated with the user's responses to advertising on Facebook.

Findings reported in research indicate that people who exhibit favorable attitudes toward advertising in general are more likely to evaluate individual advertisements as informative, fun, and acceptable (Mehta & Purvis, 1995). Similarly, people's predispositions to advertising influence their motivation to pursue additional information-seeking activities in response to advertisements (Nedungadi, Mitchell, & Berger, 1993). People who actively participate in Facebook brand pages may, therefore, be interested in the acceptance of brands' promotional activities and advertising on Facebook; accordingly, these users may respond to Facebook advertisements more positively than do those not actively participating in brand pages, and click on advertisements for further information or entertainment. In the light of these findings we proposed the following hypothesis regarding Facebook users' intensity of usage relative to display advertisements:

**Hypothesis 5:** The level of participation on Facebook brand pages will determine the level of click behavior for Facebook display advertisements.

## Method

### Sample and Data Analysis

We carried out an online survey to test the proposed hypotheses. A snowball sample was drawn from two marketing classes at a southwestern university in the US; this sampling process, whereby respondents are identified through student contacts, was performed to obtain a sufficiently large and varied sample (Taylor et al., 2011). The participants were 758 undergraduate students (484 women and 274 men;  $M_{\text{age}} = 21$  years, range 18 to 29 years).

Given that the dependent variable of interest is binary (clicking vs. not clicking), a logistic regression analysis was employed to examine the hypothesized relationships. This procedure, together with the maximum likelihood method, yielded the regression coefficients that were used to estimate the impact of the exploratory variables on the response probability (i.e., advertisement click-through).

### Measures

First, we measured advertisement clicking and the number of brand pages that users had joined. To determine whether or not the respondents clicked on Facebook advertisements we asked a dichotomous question: "Have you clicked through display advertisement(s) on Facebook?" To measure their participation in brand pages we asked an open-ended question: "How many brand pages, if any, have you joined on Facebook?" Next, the perceived informativeness, entertainment, and irritation values of advertising on Facebook were assessed via a slightly modified version of the scales used in Ducoffe's study (1996), whereby we used a four-item, 5-point Likert-type scale. Lastly, Facebook usage intensity was measured with a scale that was adapted from Ellison and colleagues (2007) for which the items were rated using a six-item, 5-point Likert-type scale. Table 1 shows the specific items, descriptive statistics, and reliability coefficients of these scales.

Table 1. *Measures, Factor Loadings, Descriptive Statistics, and Reliabilities of Scales*

	Unstd	Std
Perceived advertisement informativeness ( $M = 2.50, SD = .92, \alpha = .90$ )		
Advertisements on Facebook are informative.	1.00	.83
Advertisements on Facebook are useful.	.98	.87
Advertisements on Facebook are valuable.	.97	.87
Advertisements on Facebook are important.	.89	.75
Perceived advertisement entertainment ( $M = 2.34, SD = .97, \alpha = .95$ )		
Advertisements on Facebook are entertaining.	1.00	.82
Advertisements on Facebook are enjoyable.	1.02	.88
Advertisements on Facebook are pleasing.	.98	.90
Advertisements on Facebook are fun to use.	1.04	.92
Advertisements on Facebook are exciting.	1.02	.92
Perceived advertisement irritation ( $M = 3.06, SD = .67, \alpha = .63$ )		
Advertisements on Facebook insult people's intelligence.	1.00	.26
Advertisements on Facebook are annoying.	3.60	.86
Advertisements on Facebook are irritating.	3.29	.84
Advertisements on Facebook are deceptive.	1.06	.29
Advertisements on Facebook are confusing.	-.73	-.20

Table 1 continued

	Unstd	Std
Intensity of Facebook usage ( $M = 3.79$ , $SD = .83$ , $\alpha = .88$ )		
Facebook is part of my everyday activity.	1.00	.90
I am proud to tell people I'm on Facebook.	.65	.62
Facebook has become part of my daily routine.	.97	.91
I feel out of touch when I haven't logged onto Facebook for a while.	.78	.63
I feel I am part of the Facebook community.	.68	.64
I would be sorry if Facebook shut down.	.74	.62

Note. Unstd = unstandardized coefficient, Std = standardized coefficient; mean scores are based on a scale of 1 (*strongly disagree*) to 5 (*strongly agree*).

## Results

### Preliminary Results: Facebook Usage

Prior to examining the data to establish support or rejection of the research hypotheses, we obtained the following information regarding the respondents: descriptive information on general Facebook usage, brand page participation, and behavioral responses to advertising. The participants reported an average Facebook use of more than 1.5 hours on an average day, and an average of more than 680 Facebook friends. The respondents were affiliated with an average of 7.88 brand pages and 41.4% of the respondents ( $N = 314$ ) reported that they had clicked on advertisements on Facebook.

### Perceived Informativeness, Entertainment, and Irritation of Facebook Advertising

The logistic regression analysis shows a significant overall model ( $-2$  Loglikelihood  $\chi^2(5) = 69.65$ ,  $p < .001$ ) and an adequate fit for the data (Hosmer–Lemeshow goodness-of-fit test  $\chi^2(8) = 7.16$ ,  $p > .05$ ). In support of H1, the perceived informativeness of advertising was significantly associated with advertisement clicking ( $\beta = .65$ , Wald  $\chi^2 = 19.82$ ,  $p < .001$ ,  $\text{Exp}(\beta) = 1.91$ ). More specifically, those who perceived advertising as informative were 1.91 times more likely to click on it than were those who did not. However, perceived entertainment was not significantly related to advertisement clicking ( $\beta = -.06$ , Wald  $\chi^2 = .22$ ,  $p > .05$ ,  $\text{Exp}(\beta) = .94$ ), thus, H2 was not supported. Consistent with the expectation of H3, the perceived irritation was significantly and negatively associated with advertisement clicking ( $\beta = -.25$ , Wald  $\chi^2 = 4.33$ ,  $p < .05$ ,  $\text{Exp}(\beta) = .78$ ). The respondents who found the advertising irritating were .78 times less likely to click on it than were those who did not.

### Facebook: Intensity of Usage and Extent of Brand-Page Membership

As predicted in H4, the intensity of Facebook usage and the likelihood of

advertisement clicking were positively associated ( $\beta = .26$ ,  $\text{Wald}\chi^2 = 7.47$ ,  $p < .01$ ,  $\text{Exp}(\beta) = 1.30$ ). In addition, the relationship between the number of Facebook brand pages that users had joined and the likelihood of advertisement clicking was positive ( $\beta = .01$ ,  $\text{Wald}\chi^2 = 3.95$ ,  $p < .05$ ,  $\text{Exp}(\beta) = 1.01$ ), thereby supporting H5. Participants who used Facebook more than others did and had more brand-page memberships were 1.30 times and 1.01 times, respectively, more likely to click on Facebook-based advertisements than were those who used Facebook less and had fewer memberships.

## Discussion

Our aim in this study was to investigate the factors that influence advertisement-clicking behavior on Facebook. As we expected, the results show that perceived advertising value is closely associated with behavioral responses to advertising, whereby people are more likely to click on Facebook advertisements that they perceive as informative than they are to click on those that they perceive as irritating. In addition, active participation on Facebook and membership of its brand pages are positively related to advertisement-clicking behavior.

This finding suggests that the research results regarding advertising effectiveness and advertisement avoidance for traditional and new media (Cho & Cheon, 2004; Ducoffe, 1996; Edwards et al., 2002; Kim & Han, 2014) also apply to advertising on SNSs. Personalized Facebook advertising is thought to be more appealing and highly relevant to user interests (Lambrecht & Tucker, 2013), but some advertisements on Facebook are considered annoying if users believe that their privacy has been violated (Stone, 2010). To raise the collective effectiveness of advertising on SNSs, advertisers should increase the informativeness value, by means of unique and personally identified content (White, Zahay, Thorbjørnsen, & Shavitt, 2008), and they also need to reduce the irritation value by enhancing the privacy controls regarding personal information on SNSs (Tucker, 2014b).

Our prediction of a relationship between perceived entertainment value and advertisement clicking was not supported by the data. As the most common purpose of using SNSs is entertainment (Raacke & Bonds-Raacke, 2008), the entertainment aspect of advertising may be insufficient to attract consumers' attention in such an entertainment-optimized environment; that is, the entertainment value of advertising might be eclipsed by the greater importance of the social-engagement amusement that Facebook offers, so that users may find their friends' pictures and stories more fun and engaging than advertisements.

Another notable finding was that Facebook usage levels are significantly related to advertisement clicking, whereby people who use Facebook to a great extent, rely on it, and are active participants on brand pages are likely

to click on advertisements. For marketers, this finding suggests that gaining an understanding of users' Facebook activity levels and patterns will help to enhance the effectiveness of their advertising on this SNS. Specific advertising and promotional campaigns can be developed for target audiences, depending on the intensity of that audience's Facebook usage and brand-related activities on Facebook.

A limitation of our study is that the generalizability of its findings is somewhat limited because the sample consisted only of students; therefore, a sample drawn from the general population should be employed in future studies. Another important issue is the self-reporting of advertisement-clicking behavior. Although self-memory-based measures provide useful information about a respondent's engagement in a target behavior, more sophisticated measurement or tracking methods regarding actual behavior may produce more accurate results. It could also be beneficial in future studies for researchers to identify and examine other potential factors influencing advertisement-clicking behavior, such as advertising relevance and credibility, and the design elements of SNS advertisements (Lohtia, Donthu, & Hershberger, 2003; Lohtia, Donthu, & Yaveroglu, 2007). Taken together, the results of such research would generate a systematic knowledge base on advertising effectiveness in a growing online environment, and would aid marketers in the design of a variety of interactive tools for the enhancement of advertisement-clicking behavior on SNSs.

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