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Social Media In-Feed Advertising: the Impacts of Consistency And Sociability On Ad Avoidance

Completed Research Paper

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Abstract

This study examines the success of in-feed advertisements on social media. As social media is growing in popularity, advertisers have increased their spending on these media. Out of various forms of advertising in-feed advertising has been especially successful in generating click-through rates and comments as compared to other forms of advertising, such as banner ads, pop-up ads. This study attempts to focus on two types of in-feed ad features, namely, consistency and sociability and to evaluate their effects on consumers' perceptions of goal impediment, ad clutter and ad avoidance. We find that consistency helps to minimize both perceived goal impediment and perceived ad clutter. However, this influence is insignificant among telic users. Perceived sociability is found to mitigate users' perceptions of in-feed ads as interruptions(ad clutter and goal impediment) as well as avoidance of these ads. Implication for research and theory are presented.

Keywords: In-Feed Advertising, Social Media, Consistency, Sociability, Ad Avoidance

Introduction

In-feed advertising is one of the most effective native advertising formats in the context of social media(Fulgoni and Lipsman 2014). The ads annotated as 'promoted posts' or 'promoted tweets' that one comes across as posts or tweets while scrolling through a Facebook page or a Twitter feed is an example of in-feed advertising. The in-feed advertising is a major ad type to achieve advertisers' native objectives and is one of the most promising forms of online advertising (IAB 2015). In-feed ads vary considerably from one platform to another platform, as they need to mimic the unique message format of a particular platform and are exclusive to that particular platform (Murphy and Schram 2014).

Being interspersed with other feeds in a user's natural activity stream, in-feed ads are perceived as less intrusive compared with other forms of ads(Mane and Rubel 2014). Smith (2014) reports that in-feed ads on Facebook receive 49-times higher click-through rates and a 54% lower cost-per-click as compared to right-rail sidebar display ads. Based on a survey of 4770 consumers and an experiment of 200 consumers using eye-tracking technology, IPG Media Labs and Sharethrough(2013) found that in-feed ads received 25% more consumer views than display ads and the frequency of such viewing of in-feed ads was 53% higher than for display ads. Well-executed in-feed ads can improve the perceived credibility of websites and tend to be most useful for established brands for expanding markets, deepening consumer relationships, and enhancing brand image (Mane and Rubel 2014).

Although in-feed ad is a promising form of online advertising, this ad form has not been adequately examined in research. Given in-feed ad's growing importance, we need to identify its characteristics that help prevent or reduce users' ad avoidance. Specially, both advertisers and academia are interested in identifying the characteristics of in-feed advertising that make consumers interested in viewing and interacting. Statistics show that in-feed advertising outdoes other online advertising forms (IPG Lab and Sharethrough 2013; Mane and Rubel 2014; Murphy and Schram 2014; Smith 2014). However, there may be some other explanations for these statistics. As an example, a user may click in-feed advertisements inadvertently while scrolling through the feeds. It is not easy to distinguish in-feed ads from other un-sponsored content unless users pay careful attention. Thus, this study tends to prove that in-feed advertising is truly effective in reducing audiences' ad avoidance. Additionally, in-feed advertising is more social than traditional online advertising, whereby audiences can like, share, and post comments on these ads, as they do with other social media messages.

There are three main significances of this study. First, this paper advances the understanding of in-feed advertising. We focus on two technological features of in-feed ad: consistency and sociability. Consistency is used to capture users' general perception of similarity between in-feed ad and un-sponsored content and sociability is used to capture users' perception of social aspect of in-feed ads. These two concepts capture key features of in-feed advertising. Second, we extend ad avoidance research to in-feed advertising. To the best of our knowledge, we have found few prior studies investigating ad avoidance of subtle ad form, and this study will provide a better understanding of ad avoidance of in-feed ads. We also attempt to conceptualize technological features of in-feed ads and to evaluate their effects on consumers' perceptions of goal impediment, ad clutter and ad avoidance. Third, we consider two aspects of technology affordances that influence sociability of in-feed ad: insight support and activity support. Most of the prior studies that investigate mechanisms that influence sociability focus on particular functionalities which may bring about different levels of media richness (Gao et al. 2010). To avoid the influence of differing levels of media richness, we focus on the technology supports in enabling social behavior instead of particular technological functions.

The rest of this paper is organized as follows. We discuss the theoretical background of this paper in the next section. In the third section, we propose our research model and hypotheses. This is followed by research methodology and data analysis. Finally, we discuss the theoretical contributions, managerial implications, limitations and future directions of this study.

Theoretical Background

Advertising Avoidance

People intentionally or unintentionally ignore most of the advertisements that they encounter daily. This reaction is termed as '*advertising avoidance*', and is defined as *actions that media users take to reduce exposure to an ad's content* (Cho and Cheon 2004). In the advertising literature, intrusiveness and interference with another activity are most cited explanations for ad avoidance. Apart from these, literature also cites factors such as search hindrance, perceived ad clutter, and perceived goal impediment as significant predictors of ad avoidance (Cho and Cheon 2004; Speck and Elliott 1997). Prior studies of online ad avoidance mainly focus on traditional ad formats, such as banner ads, pop-up ads (Cho and Cheon 2004; Seyedghorban et al. 2015). To the best of our knowledge, we have found few studies to investigating ad avoidance in the context of in-feed advertising.

The Limited Capacity Model of Attention

Kahneman (1973) contends that attention is the process of allocating cognitive capacity to a task. The total capacity allocated to process activities can be divided into primary capacity and spare capacity. Primary capacity is devoted to the most important task, and spare capacity is devoted to less important tasks as well as environmental stimuli (Kahneman 1973). When a user encounters an interruption while working on a primary task, he/she has to stop the task for processing additional interruption cues. Advertisers attempt to maximize the likelihood of primary capacity being allocated to processing advertisements (Siemens et al. 2015). Lee and Farber (2007) find that brand memory of focal in-game ads is greater than that of ads placed in the peripheral visual field. Embedded in the center of action in the game, the processing of focal in-game ads is more integral to playing the game, that is, the primary task. However, ads that appear in the peripheral visual field require more spare capacity instead of primary capacity because the processing of peripheral ads is in the surroundings. Nevertheless, scholars have found that prominent ad is easily activating audiences persuasion knowledge (Cowley and Barron 2008). Hence, the prominent form may reduce the likelihood of

primary capacity being allocated to processing advertisements. When an inconsistent in-feed ad is placed in the primary task field, audiences persuasion knowledge may be activated and audiences may reduce the likelihood of primary capability being allocated to processing the ad, which could result in negative shift in ad or brand attitude and positive shift in ad avoidance.

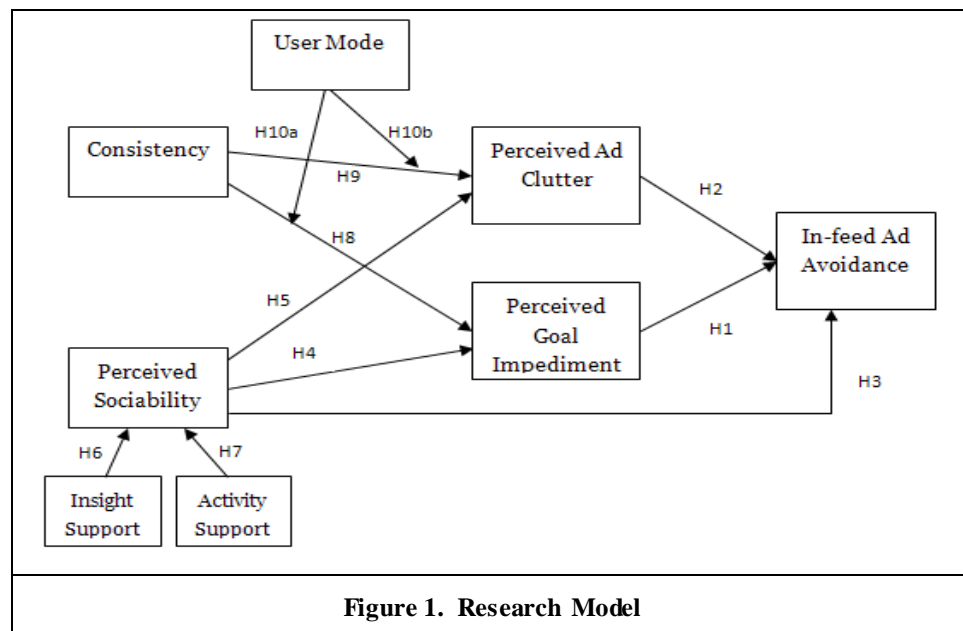
The Concept of Sociability

Sociability has been defined as ‘the extent to which the computer mediated communication environment facilitates the emergence of social space by allowing social affordance’ (Kreijns et al. 2007). It is related to human-human interactions among community members through the communication technology (Preece 2001). According to Kreijns et al. (2007), virtual worlds that exhibit higher levels of sociability enhance social interactions as well as feelings of affection, trust, belongingness and warmth. Previous research only investigates impacts of sociability in the contexts of group applications, online communities, virtual worlds (Animesh et al. 2011a; Junglas et al. 2013; Lee and Chen 2011; Phang et al. 2009; Preece 2001) and ignores the issue related to sociability of advertising.

In-feed advertising is capable of providing and facilitating social interactions between individuals. It is a highly sociable ad format, because it allows audiences to interact with one another through communication technologies such as reply function, ‘share’ and ‘like’ buttons. The success of an in-feed ad can be evaluated through its ‘likes’ and ‘shares’. In addition, since replies are directly listed under the in-feed ad entry, communication among ad recipients turns out to be visible and these recipients are able to exchange their opinions through this reply function. In this paper, sociability of in-feed ads represents the degree to which an individual’s impulse to socialize is satisfied through these ads. Animesh et al. (2011a) assert that technology can be designed to promote the sociability of the virtual world. Based on a generic typology of technology affordances that influence sociability proposed by Junglas et al. (2013), we focus on two types of affordance provided by in-feed ads in enabling social interactions: insight support and activity support.

Research Model And Hypotheses

Based on the discussion above, we present our research model in Figure 1.



Effect of Perceived Goal Impediment

Perceived goal impediment is one of the most significant predictors of ad avoidance (Cho and Cheon 2004; Edwards et al. 2002; Seyedghorban et al. 2015). Ads lead to aggravation, negative attitudes, and ad avoidance, when they interrupt a consumer’s goal (Krugman 1983). Hence, we hypothesize:

H1: Perceived goal impediment is positively correlated with in-feed ad avoidance in social media.

Effect of Perceived Ad Clutter

Several studies (e.g. Cho and Cheon 2004; Edwards et al. 2002; Seyedghorban et al. 2015) suggest that ad clutter is closely related to consumers' ad avoidance. Excessive interruption due to in-feed ads in a single usage session can evoke negative responses from social media users', thereby leading to ad avoidance. If a user feels irritated with the number of in-feed ads on the social media or if they feel that the social media is primarily an advertising medium, then the perceived ad clutter would be high and they would tend to avoid such a media. Hence, we hypothesize:

H2: Perceived ad clutter is positively correlated to in-feed ad avoidance in social media.

Effects of Sociability

Studies on sociability focus mainly on group applications, online communities (Animesh et al. 2011a; Junglas et al. 2013; Lee and Chen 2011; Phang et al. 2009; Preece 2001). Little work is done to examine the effect of sociability in the context of advertising. In-feed ads not only contain a product- or brand-related information but also include messages that audiences leave such as replies listed under the ad entry. In-feed ads allow audiences to list their replies directly under the ads, click 'like' button, and share ads with friends. 'Likes', 'shares', and audiences' replies could be used as indicators to evaluate others' perceived value of the ad and thus affect audiences' perceptions towards these ads. Scholars also found that sociability increases intention to use SNS (Livari 2014) and software (Gao et al. 2010). Based on above discussion, we argue that sociability of in-feed advertising can help mitigate the negative perceptions of ads. Hence, we hypothesize:

H3: Perceived sociability is negatively correlated with in-feed ad avoidance in social media.

H4: Perceived sociability is negatively correlated with perceived goal impediment.

H5: Perceived sociability is negatively correlated with perceived ad clutter.

Effects of Shared Insights and Shared Activities

We define *insight support* as the perception of an audience about the insights of others regarding the in-feed ad. By interacting with others, one develops a shared understanding which help understand and attribute motivational forces behind other's action, thoughts or behavior (Junglas et al. 2013). 'Likes', 'shares', and audiences' replies of the in-feed ad are directly listed under the ad entry. Thus, an audience can infer others' perceptions of the ad through these indicators, which enhances audiences' perceived sociability of these ads. Hence, we hypothesize:

H6: Insight support is positively correlated with perceived sociability.

We define *activity support* as an audience's perception of access to others via an in-feed ad. Such access is possible in an in-feed ad because audiences can share their own insights of the ad by clicking the 'like' button, sharing the ad with friends or listing replies to other audiences under the ad entry. This sense of access is beyond recognizing the social presence of others and it includes being able to observe others' actions or behaviors and to reciprocate with others. Individuals desire that the activity satisfies them by engaging with others through inter-related behaviors when performing activities, which enhances sociability (Junglas et al. 2013). Hence, we hypothesize:

H7: Activity support is positively correlated with perceived sociability.

Effects of Consistency

Several empirical studies in traditional media have proven that ad format has an impact on brand-related reactions, with prominent formats showing more negative reactions toward the ad as compared to subtle formats (Tutaj and van Reijmersdal 2012). It is necessary to examine effects and boundary conditions of ad formats on audiences' response to motivate development of innovative ad formats. These days, advertising that takes a subtle form achieves more success. For example, a product placement will hide its persuasion motive if it takes a less prominent form and if the platform presents consumers with the placement in a context of an entertaining experience (Cowley and Barron 2008). And for another example, consumer can hardly believe a sponsored message is intended to persuade when this commercial message mixes up with organic editorial content. In addition, scholars have found that banner ads are in higher level than sponsored content in aspects of advertising format recognition, persuasive intent understanding and ad skepticism (Tutaj and van Reijmersdal 2012). The perception of an in-feed ad as being consistent with un-sponsored content should be considered as the

cognitive evaluation of the degree to which this ad is similar to un-sponsored message. Based on the limited-capacity model of attention, the consistency between in-feed ads and organic feeds will lead to an increased likelihood of audiences devoting primary cognitive capacity to ads and reduce the likelihood of activation of audiences persuasion knowledge. Therefore, we presume that the consistency between in-feed ads and un-sponsored feeds has a positive influence on audiences' reactions. Hence we hypothesize:

H8: Consistency between in-feed advertising and organic content is negatively correlated with perceived goal impediment.

H9: Consistency between in-feed advertising and organic content is negatively correlated with perceived ad clutter

User Mode

Our study explores the moderating effect of user mode on the relationship between in-feed ad consistency and perceptions of audiences regarding goal impediment and ad clutter. User mode is defined as 'the extent to which internet activities are goal-directed' (Rodgers and Thorson 2000). The para-telic state is spontaneous and playful, whereas the telic state is goal-directed and serious-minded (Jung et al. 2014). Pop-up ads have been found to be more intrusive by participants highly immersed in current activity (Edwards et al. 2002). When a user is goal-directed, the main capacity is used to perform the primary task (e.g., seeking information) and similar presentation of information is likely to cause memory interference (McFarlane 2002). The user may confuse in-feed ads with un-sponsored content and needs more cognitive-processing resources to differentiate between marketing messages and desired content. Telic users have less primary capacity available to accomplish advertisements recognition. According to the limited capacity model, similarity of information in this situation causes cognitive fatigue and has a negative impact on user's psycho-/physiological personal state. Hence, we hypothesize:

H10: User mode moderates the effect of consistency between in-feed advertising and organic content on (a) perceived goal impediment, and (b) perceived ad clutter, such that these relationships are weaker among telic users than para-telic users.

Research Methodology

Questionnaire Design

The measures for the constructs in this study were adapted from extant literature to suit the context of in-feed advertising. Perceived goal impediment was measured using six items adapted from Cho and Cheon (2004) and Seyedghorban et al. (2015). Items for perceived ad clutter and ad avoidance were adapted from Cho and Cheon (2004). Perceived sociability was measured using three items adapted from Junglas et al. (2013) and two items adapted from Phang et al. (2009). Items for insight support and activity support were adapted from Junglas et al. (2013). Consistency was measured using three items adapted from Wang et al. (2013). To measure the moderator User Mode, participants were requested to indicate their major motive (information seeking, self-expression, communication, socializing, or surfing) for social media use. Users with information-seeking motive were classified as telic and those with self-expressing, communication, socializing and surfing motives were deemed as para-telic users (Jung et al. 2014; Seyedghorban et al. 2015). We provided clear definitions and information regarding each motive in the questionnaire to ensure that the categorization was right. In addition, an example of each motive was provided. For example, searching for news was categorized into information seeking; sharing updates with friends was categorized into self-expression; chatting with a friend was categorized into communication; and meeting with new friends was categorized into socializing motive and finding interesting things or killing time was categorized into surfing motive. All items were measured on a seven-point Likert scale with 1 = 'strongly disagree', 4 = 'neutral', and 7 = 'strongly agree'. Table 1 presents the summary of measurement scales.

Table 1. Summary of Measurement Scales		
Construct	Item	Source
Consistency	CON1	The presentation of in-feed advertising and organic content are very close
		Wang et al. (2013)

	CON2	The theme of in-feed advertising and organic content are very close		
	CON3	The function of in-feed advertising and organic content are very close		
Insight Support	IS1	It is easy to understand other viewers	Phang et al.(2009)	
	IS2	Other viewers find it easy to understand me		
	IS3	I have difficulty understanding other viewers (R)		
Activity Support	AS1	I reciprocate other viewers' actions		
	AS2	Other viewer reciprocate my actions		
	AS3	Other viewers' behavior is closely tied to my behavior		
	AS4	My behavior is closely tied to other viewers' behavior		
Perceived Sociability	SO1	In-feed ads provide me the opportunity to have lively, interesting and engaging interaction with others		Junglas et al. (2013), Animesh et al. (2011b), and Phang et al.(2009)
	SO2	In general, I think that in-feed ads strongly facilitate social interactions		
	SO3	Overall, I am very satisfied with the social aspects of in-feed ads		
	SO4	It is conducive to interact with others		
	SO5	It is easy to interact with others		
Perceived Goal Impediment	GI1	In-feed ads make it harder to browse the page content	Cho and Cheon(2004) and Seyedghorban et al. (2015)	
	GI2	In-feed ads disrupt me the reception of desired content		
	GI3	In-feed ads make the page content navigation difficult		
	GI4	In-feed ads distract me from the editorial integrity of the page content		
	GI5	In-feed ads infringe on my control		
	GI6	In-feed ads interrupt the flow of an editorial unit		
Perceived Ad Clutter	CL1	I think the amount of in-feed ads is excessive	Cho and Cheon(2004)	
	CL2	I think the amount of in-feed ads is irritating		
	CL3	I think this social media is exclusively an advertising medium		
Ad Avoidance	AV1	I intentionally ignore any in-feed ads on this social media		
	AV2	It would be better if there were no in-feed ads on this social media		
	AV3	I do any action to avoid in-feed ads in this social media		

Table 1. Summary of Measurement Scales

Data collection

Data for this study was collected using an online survey during December 2015, which ran for four weeks. Only those who had experience of using social media were targeted as respondents for this study. We showed respondents exactly what 'in-feed advertising' is by giving examples of in-feed ads on three most popular social media platforms in China, namely, WeChat friend circle, Baidu Tieba, and Tencent Qzone. The respondents were instructed to complete the questionnaire by recalling their most frequently used social media experience. We gave 3 Yuan to each respondent as incentive to participate in this survey. To ensure that each participant submitted only one response, we tracked and examined IP address and demographic information of each respondent. We received a total of 401 responses. After removing invalid responses (such as all responses being the same), we were left with a total of 351 complete and valid responses. Non-response bias was examined by comparing early and late respondents. No significant differences were found indicating that respondents did not differ in

their responses to the key variables of our framework and demographics. About 51.28% of the respondents were male, and 48.72% were female. Most of the respondents were 18 to 30 years old.

Data Analysis And Results

We analyzed the data using Anderson and Gerbing(1988)'s two-step approach. The first step includes the measurement model analysis and the second step includes the analysis of structural model. We analyzed the data through structural equation modeling with partial least square (PLS) version 2 (Ringle et al. 2005).

Measurement Model Test

In order to establish reliability and validity for each construct, we examined their Cronbach's alpha, their item loadings, their composite reliabilities (CR), and their average variance extracted (AVE). Given the Cronbach's alphas values and factor loadings, items AS3, AS4, CL1 and AV1 were deleted. As Table 2 demonstrates, all Cronbach's alphas values were above the 0.7 threshold, indicating good reliabilities. Item loadings were all above 0.7 and each item loads lower on any other construct than on their respective construct. Also, composite reliabilities of all constructs were above 0.8 and the average variance extracted for every construct was above 0.5. In sum, all measurements established good convergent validity (Fornell and Larcker 1981). Table 3 presents the correlation matrix displaying correlation among the constructs. The diagonal elements are the square root of the AVE of the corresponding construct, which are all greater than the correlation of the corresponding construct with other construct, thus indicating that all measurements demonstrate sufficient discriminant validity. Therefore, we conclude that all measurements are statistically sound and display sufficient construct validity (Fornell and Larcker 1981). Further, as the squared correlations between latent constructs were below 0.8, we contend that multicollinearity is unlikely to be a major concern for this study.

Construct	Variable	Loadings	Crobach's α	CR	AVE
Consistency	CON1	0.8493	0.8999	0.8993	0.7486
	CON2	0.8466			
	CON3	0.8988			
Insight Support	IS1	0.9004	0.8561	0.9124	0.7763
	IS2	0.8670			
	IS3	0.8756			
Activity Support	AS1	0.9543	0.8999	0.9523	0.909
	AS2	0.9526			
Perceived Sociability	SO1	0.9013	0.9390	0.9535	0.804
	SO2	0.9023			
	SO3	0.8824			
	SO4	0.9015			
	SO5	0.8955			
Perceived Goal Impediment	GI1	0.8861	0.9226	0.9394	0.7213
	GI2	0.8663			
	GI3	0.8342			
	GI4	0.8103			
	GI5	0.8377			
	GI6	0.8589			

Perceived Ad Clutter	CL2	0.9104	0.7204	0.876	0.7795
	CL3	0.8545			
Ad Avoidance	AV2	0.8840	0.7582	0.8918	0.8048
	AV3	0.9099			

Table 2. Results of Reliability and Validity Analysis

Table 3. Correlation Matrix and Square Roots of AVEs							
	CON	IS	AS	SO	GI	CL	AV
CON	0.865						
IS	0.439	0.881					
AS	0.450	0.697	0.953				
SO	0.387	0.698	0.707	0.897			
GI	-0.38	-0.458	-0.352	-0.485	0.849		
CL	-0.322	-0.434	-0.386	-0.453	0.679	0.883	
AV	-0.280	-0.459	-0.444	-0.557	0.668	0.642	0.897

Table 3. Correlation Matrix and Square Roots of AVEs

Additionally, as all measures were self-reported, there is a potential for common method bias. We first conducted a Harmon's single-factor test on seven factors including consistency, sociability, insight support, activity support, ad clutter, goal impediment, and ad avoidance. Results from this test showed that no single factor emerged as accounting for major covariance in the data (the first factor accounted for only 21.38% of the total variance). Second, following Liang et al. (2007), we included a common method factor into the PLS model. As shown in Table 4, the average indicator's variance explained by the principal construct is 0.7831 and the average variance explained by the method is 0.0055. Hence, given the small magnitude and insignificance of most method factor loadings, we argue that common method bias is not likely to be a problem in this study (Liang et al. 2007).

Table 4. Common Method Bias Analysis					
Construct	Variable	Substantive Factor Loading (R1)	R1 ²	Method Factor Loading (R2)	R2 ²
Consistency	CON1	0.9009***	0.8116	-0.0685	0.0047
	CON2	0.8614***	0.7420	-0.0172	0.0003
	CON3	0.8370***	0.7006	0.0819*	0.0067
Insight Support	IS1	0.8187***	0.6703	0.0959*	0.0092
	IS2	0.9351***	0.8744	-0.0793	0.0063
	IS3	0.8928***	0.7971	-0.0205	0.0004
Activity Support	AS1	0.9418***	0.8870	0.016	0.0003
	AS2	0.9651***	0.9314	-0.016	0.0003
Perceived Sociability	SO1	0.8413***	0.7078	0.069	0.0048
	SO2	0.9660***	0.9332	-0.0735*	0.0054
	SO3	0.8943***	0.7998	0.0079	0.0001
	SO4	0.8928***	0.7971	0.0024	0.0000
	SO5	0.8896***	0.7914	-0.0068	0.0000
Perceived	GI1	0.9285***	0.8621	0.0518	0.0027

Goal Impediment	GI2	0.8316***	0.6916	-0.0436	0.0019
	GI3	0.8345***	0.6964	0.0008	0.0000
	GI4	0.9230***	0.8519	0.1345**	0.0181
	GI5	0.7102***	0.5044	-0.1518**	0.0230
	GI6	0.8694***	0.7559	0.0124	0.0002
Perceived Ad Clutter	CL2	0.8354***	0.6979	-0.0805*	0.0065
	CL3	0.9364***	0.8768	0.0862*	0.0074
Ad Avoidance	AV2	0.9840***	0.9683	0.1204**	0.0145
	AV3	0.8135***	0.6618	-0.1166**	0.0136
Average		0.8828	0.7831	0.0002	0.0055
*p<0.05; **p<0.01; ***p<0.001					

Table 4. Common Method Bias Analysis

Structural Model Test

We then conduct structural equation modeling using PLS-Graph. The results of the same are summarized in Figure 2.

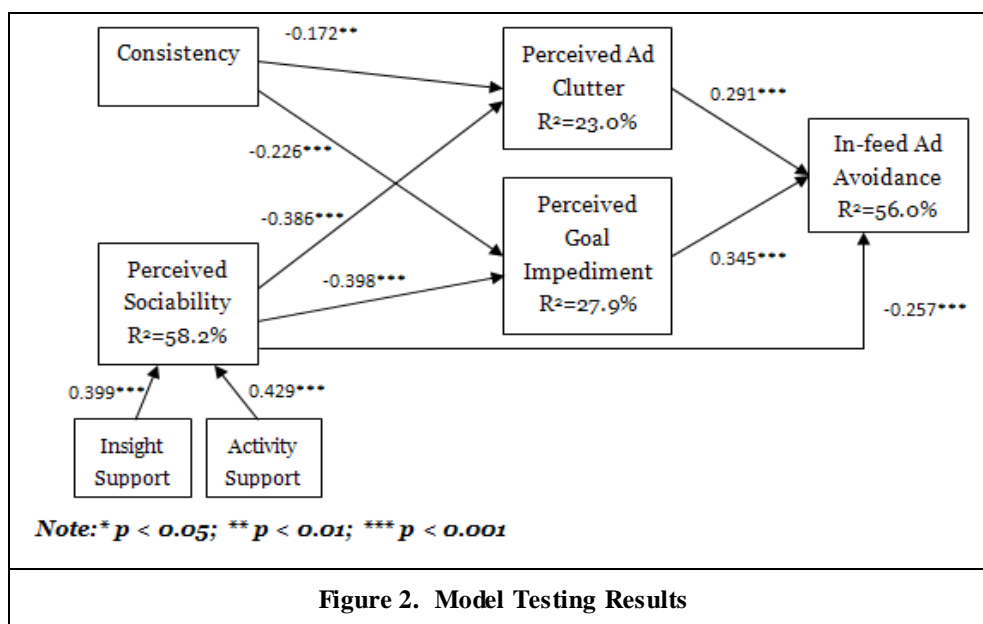


Figure 2. Model Testing Results

As expected, both perceived goal impediment and perceived ad clutter were found to have a positive impact on in-feed ad avoidance, thus supporting H1 and H2. Perceived sociability was found to have a negative effect on in-feed ad avoidance, thus supporting H3. These three constructs together explained 56.0% of the variance in in-feed ad avoidance. Perceived sociability was also found to be negatively associated with perceived goal impediment and perceived ad clutter, thus supporting H4 and H5. Both insight support and activity support were found to exert positive impact on perceived sociability, indicating that H6 and H7 were supported. Consistency between in-feed advertising and organic content had a significant negative impact on perceived goal impediment and perceived ad clutter, thus supporting H8 and H9. In addition, the results explain 58.2% variance in perceived sociability, 27.9% variance in perceived goal impediment, and 23.0% in perceived ad clutter.

To test the moderating effect of user mode on each relationship (H10a and H10b), we followed the procedure established by Chin et al. (2003). This procedure uses subgroup analysis and is considered as the proper method for examining moderating effect. We estimated the structural model for each subgroup, namely, telic and paratelic.

As summarized in Table 5, consistency had no significant impact on both perceived goal impediment and perceived ad clutter among telic users. These relationships are weaker for telic users when compared to para-telic users. Thus, user mode was found to have a significant moderating effect on the relationship between consistency and perceived goal impediment, thus supporting H10a. The moderating effect of consistency on the relationship between consistency and perceived ad clutter was also found to be significant, thus supporting H10b.

Hypothesis	Para-telic user (n=177)		Telic user (n=174)	
	Standardized Path Coefficient	t-Value	Standardized Path Coefficient	t-Value
H10a	-0.419	6.097***	-0.022	0.625
H10b	-0.317	4.036***	-0.050	0.279

*Note: * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.*

Table 5. Moderating Effect Analysis

Conclusion

Theoretical Contributions

From the theoretical perspective, our study makes an important contribution to advertising knowledge, specifically to ad avoidance research stream. First, this study demonstrates that sociability of in-feed advertising plays an important role in the reduction of negative perceptions of users and that its antecedents can be managed by advertisers. Studies on sociability (e.g. Animesh et al. 2011a; Junglas et al. 2013; Lee and Chen 2011; Phang et al. 2009; Preece 2001) focus mainly on group applications and online communities. However, little work investigates the effects of advertising sociability. Our study fills this research gap to some extent. We prove that sociability minimizes perceptions of goal impediment and ad clutter. In addition, the results show that sociability can be managed by insight support and activity support.

Second, this study provides insight into antecedents influencing perceived goal impediment and perceived ad clutter and tests their proposed interrelationships in the context of in-feed advertising. Although perceived goal impediment and perceived ad clutter have been showcased sufficiently as predictor variables of ad avoidance, their potential antecedents have not been investigated. The two main antecedents of perception of ads as identified by previous studies are congruence of the advertisement content with the current task and intensity of cognition while viewing the ad (Edwards et al. 2002). The concept of consistency is introduced to investigate the effects of similarity between in-feed advertising and organic content on perceived goal impediment and perceived ad clutter. Lastly, we found that user mode is a significant addition to the theoretical explanation of consistency effects indicating the importance of considering individuals' goal orientation in examining ad avoidance.

Managerial Implications

This study has implications for both advertisers who are seeking effective ad formats and social media service providers who want to gain competitive advantage and improve their users' experience. Social advertising is no-doubt effective. However, when consumers become aware that they are watching an ad, they may be less likely respond positively to the ad. Tucker (2012) examines the effectiveness of social influence in advertisements by deliberately including disclosure statements, such as 'be like your friend', and they find that audiences rejects attempts to explicitly and deliberately harness or refer to a friend's actions in their ad copy. In other words, advertisers should avoid deliberate disclosure states on their social advertisements. They may provide advertisements with social elements and benefit from the spontaneous interaction among consumers.

Our study proves that consistency results in decreased perception of goal impediment and ad clutter among consumers. However, it has also been found that these relationships are only significant among para-telic users. Although our study does not provide empirical evidence, which shows that consistency exacerbates the perceptions of advertising as an interruption, we still cannot rule out the

possibility. According to these findings, social media providers should coordinate their un-sponsored content with advertisements on their platforms. In addition, we suggest advertisers to be cautious in selecting the advertising channel.

Consumers often visit a web site to actively seek information or entertainment that fulfills their needs. Previous studies on online social networking sites (e.g. Kelly et al. 2010) indicate that most SNS users visit these sites only to pass time. Therefore, we suggest that advertisers on social media should explore the dynamics of this medium, develop a better understanding of social media users, and then create advertisements that engage time of users and alleviate their boredom.

Limitations And Future Directions

The results of this study should be viewed in the context of its limitations. First, further research can be conducted by incorporating social media characteristics. Flanagin and Metzger (2001) indicate that motivations for using any media and the corresponding interaction is quite person dependent. Consumers' activities in social media are strongly related to their motivation. Therefore, future research may investigate the effect of social media characteristics on ad avoidance.

Second, our study investigates only the perceptions of general similarity between in-feed advertising and un-sponsored messages. Further research could be extended to include presentation variables of in-feed advertising, such as ad position so as to make guidelines more practical and operational.

Third, this study does not examine the effect of sociability on ad avoidance with respect to the tie-strength of social relationship. Li et al.(2012) found that endorsements from ones personal acquaintances are most trusted. They propose a social advertising system based upon the idea of friends endorsement which may outperform other advertising strategies in terms of effectiveness. This provides an opportunity for further research to examine the effect of tie-strength on relationships between sociability and perceptions of advertisements.

References

- Anderson, J. C., and Gerbing, D. W. 1988. "Structural Equation Modeling in Practice: A Review and Recommended Two-Step Approach," *Psychological bulletin* (103:3), p. 411.
- Animesh, A., Pinsonneault, A., Yang, S.-B., and Oh, W. 2011a. "An Odyssey into Virtual Worlds: Exploring the Impacts of Technological and Spatial Environments on Intention to Purchase Virtual Products," *Mis Quarterly* (35:3).
- Animesh, A., Pinsonneault, A., Yang, S.-B., and Oh, W. 2011b. "An Odyssey into Virtual Worlds: Exploring the Impacts of Technological and Spatial Environments on Intention to Purchase Virtual Products," *MIS Quarterly-Management Information Systems* (35:3), p. 789.
- Chin, W. W., Marcolin, B. L., and Newsted, P. R. 2003. "A Partial Least Squares Latent Variable Modeling Approach for Measuring Interaction Effects: Results from a Monte Carlo Simulation Study and an Electronic-Mail Emotion/Adoption Study," *Information Systems Research* (14:2), pp. 189-217.
- Cho, C.-H., and Cheon, H. J. 2004. "Why Do People Avoid Advertising on the Internet?," *Journal of Advertising* (33:4), pp. 89-97.
- Cowley, E., and Barron, C. 2008. "When Product Placement Goes Wrong: The Effects of Program Liking and Placement Prominence," *Journal of Advertising* (37:1), pp. 89-98.
- Edwards, S. M., Li, H., and Lee, J.-H. 2002. "Forced Exposure and Psychological Reactance: Antecedents and Consequences of the Perceived Intrusiveness of Pop-up Ads," *Journal of Advertising* (31:3), pp. 83-95.
- Flanagin, A. J., and Metzger, M. J. 2001. "Internet Use in the Contemporary Media Environment," *Human communication research* (27:1), pp. 153-181.
- Fornell, C., and Larcker, D. F. 1981. "Evaluating Structural Equation Models with Unobservable Variables and Measurement Error," *Journal of Marketing Research*, pp. 39-50.
- Fulgoni, G., and Lipsman, A. 2014. "Numbers, Please: Digital Game Changers: How Social Media Will Help Usher in the Era of Mobile and Multi-Platform Campaign-Effectiveness Measurement," *Journal of Advertising Research* (54:1), pp. 11-16.
- Gao, Q., Dai, Y., Fan, Z., and Kang, R. 2010. "Understanding Factors Affecting Perceived Sociability of Social Software," *Computers in Human Behavior* (26:6), pp. 1846-1861.
- IAB. 2015. "Iab Deep Dive on in-Feed Ad Units: A Supplement to the Iab Native Advertising Playbook." Retrieved March 3, 2016, from http://www.iab.net/media/file/IAB_Deep_Dive_on_InFeed_Ad_Units.pdf

- Iivari, J. 2014. "Perceived Sociability of Use and Individual Use of Social Networking Sites-a Field Study of Facebook Use in the Arctic," *Open Journal of Information Systems (OJIS)* (1:1), pp. 23-53.
- IPG Lab, and Sharethrough. 2013. "Native Ads Vs Banner Ads: Native Ad Research from Ipg & Sharethrough Reveals That in-Feed Beats Banners." Retrieved June 5, 2016
- Jung, J. M., Hui, H. C., Min, K. S., and Martin, D. 2014. "Does Telic/Paratelic User Mode Matter on the Effectiveness of Interactive Internet Advertising? A Reversal Theory Perspective," *Journal of Business Research* (67:6), pp. 1303-1309.
- Junglas, I., Goel, L., Abraham, C., and Ives, B. 2013. "The Social Component of Information Systems—How Sociability Contributes to Technology Acceptance," *Journal of the Association for Information Systems* (14:10), pp. 585-616.
- Kahneman, D. 1973. *Attention and Effort*. Citeseer.
- Kelly, L., Kerr, G., and Drennan, J. 2010. "Avoidance of Advertising in Social Networking Sites," *Journal of Interactive Advertising* (10:2), pp. 16-27.
- Kreijns, K., Kirschner, P. A., Jochems, W., and Van Buuren, H. 2007. "Measuring Perceived Sociability of Computer-Supported Collaborative Learning Environments," *Computers & Education* (49:2), pp. 176-192.
- Krugman, H. E. 1983. "Television Program Interest and Commercial Interruption," *Journal of Advertising Research*).
- Lee, M., and Faber, R. J. 2007. "Effects of Product Placement in on-Line Games on Brand Memory: A Perspective of the Limited-Capacity Model of Attention," *Journal of Advertising* (36:4), pp. 75-90.
- Lee, Y., and Chen, A. N. 2011. "Usability Design and Psychological Ownership of a Virtual World," *Journal of Management Information Systems* (28:3), pp. 269-308.
- Liang, H., Saraf, N., Hu, Q., and Xue, Y. 2007. "Assimilation of Enterprise Systems: The Effect of Institutional Pressures and the Mediating Role of Top Management," *MIS Quarterly*), pp. 59-87.
- Lien, N.-J., Lee, Y.-L., and Li, Y.-M. 2012. "Online Social Advertising Via Influential Endorsers," *International Journal of Electronic Commerce* (16:3), pp. 119-154.
- Mane, S., and Rubel, S. 2014. "Getting in-Feed Sponsored Content Right: The Consumer View." Retrieved October 22, 2015, from http://www.iab.net/media/file/IAB_Edelman_Berland_Study.pdf
- McFarlane, D. 2002. "Comparison of Four Primary Methods for Coordinating the Interruption of People in Human-Computer Interaction," *Human-Computer Interaction* (17:1), pp. 63-139.
- Murphy, T., and Schram, R. 2014. "What Is It Worth? The Value Chasm between Brand and Influencers," *Journal of Brand Strategy* (3:1), pp. 31-40.
- Phang, C. W., Kankanhalli, A., and Sabherwal, R. 2009. "Usability and Sociability in Online Communities: A Comparative Study of Knowledge Seeking and Contribution," *Journal of the Association for Information Systems* (10:10), p. 2.
- Preece, J. 2001. "Sociability and Usability in Online Communities: Determining and Measuring Success," *Behaviour & information technology* (20:5), pp. 347-356.
- Ringle, C. M., Wende, S., and Will, A. 2005. "Smartpls 2.0.M3.." Hamburg: SmartPLS.
- Rodgers, S., and Thorson, E. 2000. "The Interactive Advertising Model: How Users Perceive and Process Online Ads," *Journal of Interactive Advertising* (1:1), pp. 41-60.
- Seyedghorban, Z., Tahernejad, H., and Matanda, M. J. 2015. "Reinquiry into Advertising Avoidance on the Internet: A Conceptual Replication and Extension," *Journal of Advertising*), pp. 1-10.
- Siemens, J. C., Smith, S., and Fisher, D. 2015. "Investigating the Effects of Active Control on Brand Recall within in-Game Advertising," *Journal of Interactive Advertising* (15:1), pp. 43-53.
- Smith, C. 2014. "Native in-Stream Ads Will Soon Dominate Social Media Advertising." Retrieved July 2, 2015, from <http://www.businessinsider.in/Native-In-Stream-Ads-Will-Soon-Dominate-Social-Media-Advertising/articleshow/33518838.cms>
- Speck, P. S., and Elliott, M. T. 1997. "Predictors of Advertising Avoidance in Print and Broadcast Media," *Journal of Advertising* (26:3), pp. 61-76.
- Tucker, C. 2012. "Social Advertising."
- Tutaj, K., and van Reijmersdal, E. A. 2012. "Effects of Online Advertising Format and Persuasion Knowledge on Audience Reactions," *Journal of Marketing Communications* (18:1), pp. 5-18.
- Wang, N., Shen, X.-L., and Sun, Y. 2013. "Transition of Electronic Word-of-Mouth Services from Web to Mobile Context: A Trust Transfer Perspective," *Decision Support Systems* (54:3), pp. 1394-1403.