E-COMMERCE ADVERTISING IN SOCIAL NETWORKING SITES AND IMPLICATIONS FOR SOCIAL COMMERCE

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Abstract

The proliferation of social media platforms, especially the social networking sites (SNSs), has been changing customers’ online purchasing habits during the last decades. Recently, online marketers not only release advertising on e-commerce platforms but also promote their products and services on social media platforms. In this study we focus on e-commerce advertising in SNSs. We believe that customers are willing to adopt the advertising information published on SNSs for their purchase related decisions making because they trust those platforms and the advertising posted on them. With this research, we seek to explore the relation between customers’ trust in SNSs, customers’ trust in advertising information posted on the sites and customers’ intentions of adopting advertising information to make purchase related decisions. We believe that if an individual trusts the social networking site he/she uses, he/she will trust the advertising information published on it and have intentions to adopt the information to make purchase related decisions. An online survey with 134 subjects shows that trust can be transferred from SNSs to the advertising information posted on the platforms and subjects have intentions to adopt that information to make purchase related decisions. The study also discusses the implications for social commerce, focusing on commercial activities mediated by social media.

Key words: E-commerce Advertising, Social Network Sites, Social Commerce, Trust Transfer
1 INTRODUCTION

E-commerce advertising, also known as internet advertising (IA) in electronic commerce, is not a new phenomenon. It is one of the primary ways for online marketers to promote their products or services on e-commerce platforms. However, recently, we notice that e-commerce advertising has been prevalent in social media platforms, especially in the social networking sites (SNSs) such as Facebook, Wechat, Twitter and Pinterest. The result of the Pew Internet Project’s research related to social networking indicates that the ratio of online adults engaging in social networking sites has increased from 8% in 2005 to 74% as of January 2014 (Pew Research Center 2015). Another statistic reveals that Facebook, as the most popular network, has over 1.4 billion registered accounts as of March 2015, followed by QQ and Whatsapp in which the number of registered accounts is 829 million and 700 million respectively (statista.com 2015). Online marketers have been tempted by the large number of online users in SNSs to release e-commerce advertising on social networking platforms. According to the 2012 State of Inbound Marketing report, 62% of the surveyed companies revealed that social media had become more important as their sources of leads (State of Inbound Marketing 2012) and 86% of marketers indicate that social media become essential to their business (Social Media Examiner 2013). Therefore, it is worth investigating the role of e-commerce advertising in SNSs and its impact on customers’ purchase related decisions.

The proliferation of social media, e.g. social networking sites (SNSs), has been changing customers’ purchasing habit and created some innovative business models. Social Commerce, briefly described as commercial activities mediated by social media (Curty & Zhang 2011), is an emerging and fast-growing online business model which has been widely accepted and used. According to the statistics from statista.com (statista.com 2015), the prognosis for worldwide social commerce revenue will be increased from 5 billion U.S. dollars in 2011 to 30 billion U.S. dollars in 2015. Social commerce sales in U.S. between 2012 and 2014 had raised from 3 billion to 9 billion and are forcasted to represent 5% of online retail revenue in 2015, approximately 14 billion U.S. dollars. According to adweek.com (2014), there were 33% of customers in the US had acted on a promotion on a brand’s social media page.

The term social commerce was incepted in 2005 (Wang & Zhang 2012). This phenomenon has not become prevalent until 2010 when photo- and video-sharing social networking services, including Pinterest and Instagram, and instant messaging applications, like WeChat, are embedded with social networking functions. Customers can therefore take advantage of the social media characteristics, such as virality and interactivity, to get product information and make purchases. To be more specific, the product promotion or advertising can go viral in a short time once it is posted on social media channels, and customers from different locations can get the information without any geographical limitation. If a customer is attracted by the advertising, he/she will be able to interact with the merchant directly through the social networking platform. Currently, social commerce is conducted in various types of social media platforms including micro-blog, SNSs and instant messaging. For example, in China, Wechat and Sina-blog are the two major platforms for social commerce., Tencent even has launched a new business module of online shop called We-Store on Wechat to support transactions among their users. As for western countries, Facebook, Instagram and Twitter play the active roles in the realm of social commerce.

In this study, we are interested in e-commerce in SNSs and focus on the function of e-commerce advertising in this new context. The typical procedure of an e-commerce transaction in SNSs starts when a customer notices the advertising of a product published on a specific social networking site, instead of purchasing the product in the social media platform, he/she will contact the advertisement publisher directly to make payment or access another website following the hyperlink embedded in the advertising to complete the transaction. Social commerce is regarded as the revolution of e-commerce (Huang & Benyoucef 2013) and utilizes Web 2.0 functions in the e-commerce environment (Kim & Srivastava 2007). However, it cannot be simply recogonized as a neologism for the combination of social media and e-commerce. In fact, the crucial part of social commerce is the incorporation of the social features of Web 2.0, including user-generated content, experience sharing and consumers interactions, into the whole business process (Kim & Srivastava 2007; Curty & Zhang 2011). It is noticeable that e-commerce in social media platforms, with SNSs in particular, is different
from social commerce because the impact of social interaction has been excluded. However, current study also provides implications for social commerce. Since social factors are complicated and hard to be controlled by social commerce marketers, it will be more meaningful for us to investigate on those factors which are more applicable and realistic for marketers to manipulate, therefore, we focus on understanding how social media platform and the posted advertising information influence SNS’s users’ purchase related decisions.

According to the Theory of Reasoned Action (TRA), we can infer that people’s belief or attitude towards the social media platform and the advertising information published on it will affect their intentions or actual actions of purchase. Trust has been considered as an important predictor in prior studies about online purchase in e-commerce to predict customers purchase intentions (Chen & Barness 2007; Choon et al. 2010; Yoon 2002), we therefore, focus on investigating trust, both in social media platform used by the customers and the advertising information published on it, in influencing the adoption of such advertising information for purchase-related decision making. Among different types of social media platforms, we picked SNSs as our study target because e-commerce advertising has become common and popular in SNSs. For example, Facebook has implemented the function of Promoted Posts since 2012, allowing businesses pay to feature their posts in news feeds. Therefore, numerous product advertising can be embedded into Facebook pages. Similarly, Instagram started selling ads to businesses in late 2013 and advertisers can purchase sponsored photos and videos to show up in news feeds.

The fact that trust in online sites will influence customers’ purchase intentions (Lu et. al 2010; Schlosser et al. 2006; Van der Heijden et. al 2003; Choon et al. 2010) and the reality that trust can be transferred in the context of the Internet (Stewart 2003; Stewart & Zhang 2003) arise the question of how advertising information promoted on the social media site mediates the relation between trust in SNSs and intentions of adopting advertising information to make purchase related decisions. Hence, with this research we aimed at answering the following two questions:

(1) Does customer’s trust in social networking sites (SNSs) can be transferred to the advertising information posted on it?

(2) Does a customer’s trust in advertising information have impact on the customer’s intentions of using it to make purchase related decisions?

The remainder of the article is organized as follows. In next section we briefly review prior theoretical models underlying our research. We then provide a research model and hypotheses for this study. Section 4 reports our data analysis and findings, followed by the discussion of the results in Section 5. Section 6 summarizes the study and draws final conclusions. Section 7 presents the limitation and direction of future study.

2 BACKGROUND

As the background to frame our study to investigate how a customer’s intention of adopting advertising information to make purchase related decisions based on the trust transferred from the SNS to the advertising information posted on it, we adopted Trust Transfer and Theory of Reasoned Action (TRA) as the theoretical foundation. The following sections depict the related concepts.

2.1 Trust in Advertising

Understanding customers’ trust attitude towards advertising is important for both academic and practitioners. One of the primary communication functions of advertising is to deliver information about market offerings from a business to its customers. Customers’ attitude towards advertising is always associated with their purchase related intentions or behaviours which will ultimately produce real benefits to the business. However, there is also a consistent tendency for customers to distrust advertising (Calfee & Ringold 1994). Customer trust differs across advertising media (Soh et al. 2007) and the more credible the particular medium, the more it is depended on as a primary information source (Haven & Yale 1986; Johnson & Kaye 1998). Flanagin and Metzger (2000)
suggest that overall medium credibility affects the credibility of information delivered by the specific media. Hence, customers’ trust in the medium would influence their trust in the information delivered by it. Although trust and credibility are two independent but related constructs, Soh et al. (2007) have confirmed in their study about trust in different advertising media that medium’s credibility is associated with trust in that specific advertising medium. In other words, people’s trust in the media of advertising affects their trust in the advertising posted on it. Therefore, in this study we assume that customers’ trust in the medium of advertising information has impact on their trust in the advertising.

2.2 Trust Transfer

Trust can be developed through a transference process (Doney & Cannon 1997). Trust can be transferred from one trusted “proof source” to another person or group with which the trustor has little or no direct experience (Milliman & Fugate 1988; Strub & Priest 1976). We believe, Transfer occurs when customers trust the advertising information (an unknown target) posted on the social networking sites because they trust the social networking sites they used (known targets). Some studies consider trusted individuals (known targets) as the source of trust transferring trust to an unknown target Strub & Priest 1976; Uzzi 1996). Other studies indicated that trust may be transferred from a place (Henslin 1968) or an industry association (Milliman & Fugate 1988) to an individual. Stewart (2003) further categorized the process of trust transfer into two categories: (1) trust transfers between targets, which refers to that trust transfers from one trusted entity to another unfamiliar entity when the unfamiliar entity being perceived as related to the trusted entity, and (2) trust transfers from one context to another context. Follow the same logic, we assume that trust can also be transferred from offline to online and vice-versa. In 2002, Menon et al. reported a study of the determinants of consumer trust in prescription drug information online and its influence on online information search (Menon et al. 2002). The study found that trust in traditional media (i.e TV ads, newspaper ads, newspaper articles) predicted trust in online drug information, indicating that trust in traditional media can be transferred to online environment. The stimulus of trust transfer is the perception of the association between the trusted source and the unfamiliar source, such as similarity, interaction and affiliation. In the present study we focus on trust transferring from the advertising media to the advertising itself, that is from a context to an entity. Trust transfer is therefore regarded as a cognitive process, implying that the perception of the association between the two targets induces trust transference. In summary, prior advertising studies found that trust can be transferred from the media of advertising to the advertising published on it. In this study, we borrow the finding from advertising research to information system research to explain trust transference between social media platform and e-commerce advertising posted on it.

2.3 Theory of Reasoned Action (TRA)

Theory of Reasoned Action (Fishbein & Ajzen 1975) is a model for prediction of behavioral intention and behavior. It posits that behavioral intention as the immediate antecedent of behavior is a function of salient information or beliefs, which consists of attitude. Attitude is the aggregation of beliefs about a particular behavior with different weights of these beliefs. Hence, salient information or beliefs affect intentions and subsequent behavior through attitudes. Therefore, we assume that customers are willing to adopt advertising information to make purchase related decisions because of their trusting beliefs in the information.

3 RESEARCH APPROACH

Our main purpose of this research is to investigate whether trust can be transferred from the social networking site to the advertising information published on it, which leads to customers’ intentions of adopting advertising information to make purchase related decisions.

As aforementioned, trust can be transferred among different sources if association is perceived between the source of transferred trust and the unfamiliar target. In this study, we posit that trust transfers from a trusted context, the SNSs, to an unfamiliar target, the advertising information posted on them. Trust in SNSs is defined as “people perceive that the social network sites (SNSs) are
benevolent, competent and integrative”. Benevolence, competence and integrity are widely utilized (Bhattacherjee 2002; Gefen & Straub 2004; Mayer et al. 1995) to measure trust and these three dimensions were also used to measure trust in website or virtual community (Lu et al. 2010; McKnight et al. 2000). Trust in Advertising Information is defined as “people’s perception of reliability, usefulness and affection of information in advertising posted on SNSs” (Soh et al. 2009).

In this context, when customers first view the product information displayed on the social networking sites they used (e.g., Facebook, Twitter, Wechat), they will not be fully convinced by it because of the unfamiliarity of the product or the publisher of the information. Instead of being suspicious about the credibility of the product information displayed on the SNS, according to the concept of trust transfer, individuals will trust the advertising based on their trusting beliefs in the social platform. Since the social networking site is the medium of the advertising information, individuals will perceive the association between the platform (known target) and the advertising information (unknown target) and consider the advertising information as trustworthy. Prior studies also indicate that customers’ trust in advertising medium affects their trust in advertising information (Flanagin & Metzger 2000; Haven & Yale 1986; Johnson & Kaye 1998) and trust in the website of virtual community leads to the intention to adopt information published on it (Lu et al. 2010). Therefore, if an individual trusts a social networking site where he/she gets product information, they will trust the advertising information published on it. Correspondingly, we proposed our first hypothesis as:

H1: Customers’ trust in SNSs will positively affect their trust in advertising information posted on them.

Trust can be decomposed into two constructs, trusting beliefs and trusting intentions (Mcknight et al. 1998). Trusting beliefs represent “the confident truster perception that the trustee has attributes that are beneficial to truster” (McKnightet al. 2002). Trusting intentions refers to that truster is willing to depend or intends to depend on trustee (McKnight et al. 1998; McKnight et al. 2002). In our study, the concepts of trust in SNSs and trust in advertising information are both categorized as trusting beliefs. Intentions of Adopting Advertising Information is the intentions to use advertising information to make purchase related decisions, which is under the concept of trusting intentions. Customers (trusters) are willing to depend on advertising information (trustee) to make purchase related decisions. According to TRA (Fishbein & Ajzen 1975) and the findings of several prior studies (such as McKnight et al. 2000; McKnight et al. 2001; Schlosser et al. 2006), we believe that trusting beliefs lead to trusting intentions. Therefore, if customers trust the information conveyed by the advertising, they will be willing to adopt it to make purchase related decisions. Hence, we formulate our second hypothesis as:

H2: Customers’ trust in advertising information will lead to their intentions of adopting advertising information to make purchase related decisions.

![Image](image_url)

**Figure 1 Research Model**

4   DATA ANALYSIS AND FINDINGS

4.1 Data Collection

To study the phenomenon of interest, we had conducted an online survey on sojump.com. Sojump.com is a reliable and widely used online survey platform in the Mainland China. More than 172,000 corporations, including 113 Fortune 500 firms and colleges and universities, are currently using this platform for data collection (sojump.com 2015). 132 out of the 134 collected questionnaires
were valid. More than half of the respondents (52.99%) had extensive experience of using social network (They were sometimes, usually or almost always reading advertising on SNSs). The percentage of the major SNSs the participants used were 53.73% for Renren, 7.46% for Facebook, and the rest were shared by Wechat, Sina microblog, QQ space and others. Among the 132 participants, 58.21% were females and the remaining 41.79% were males. The majority of the respondents had higher education, with 59.70% for bachelor degree holders and 30.60% for master degree. 97.01% of the respondents were from the Mainland China, while only 2.99% came from Hong Kong and other countries. The majority of the respondents (87.31%) aged from 19 to 25 and the rest were above 25 years old. More than half of the respondents’ monthly income was less than 4000RMB (53.73%)

4.2 Measures

Our measurement instrument included two broad types of measures. We adopted the trusting beliefs measurement items (including the three sub-dimensions competence, integrity and benevolence) from McKnight et al. (2002) and modified them to fit our context as the measurement of trust in social network sites (TrustSNS). The sample item is “I believe the SNS which I use is ……” . Our instrument also includes the ADTRUST Scale originated from Soh et al. (2009) to test the construct of trust in advertising information (TrustAD). TrustAD was measured by three sub-constructs, namely, reliability, usefulness and affection. One sample item is “Information conveyed in this advertising is …….”. Scales for intentions of adopting advertising information (IntentionINFO) were also extracted from ADTRUST Scale and one of the sample questions the structure of the item is “I am willing to …… advertising on SNSs when making purchase related decisions”. Seven point Likert scale was used to measure these three main constructs.

4.3 Data Analysis

We performed the data analysis by using partial least squares regression (PLS), one of the most commonly used data analysis method in academic studies (Chin, 1995; Fornell & Bookstein, 1982; Streukens et al., 2010). The versatile functions of PLS include modeling latent constructs under the condition of non-normality and handling small- to medium-sized samples well. PLS is also compatible in analyzing highly complex predictive models and has the ability to validate and interpret the measurement model and structural model for given data.

<table>
<thead>
<tr>
<th>Construct</th>
<th>Covergent Validity</th>
<th>Discriminant Validity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CR</td>
<td>AVE</td>
</tr>
<tr>
<td>TrustSNS</td>
<td>0.892</td>
<td>0.485</td>
</tr>
<tr>
<td>TrustAD</td>
<td>0.964</td>
<td>0.630</td>
</tr>
<tr>
<td>IntentionINFO</td>
<td>0.918</td>
<td>0.788</td>
</tr>
</tbody>
</table>

Table 1 Reliability, Convergent and Discriminant validity results

Covergent validity refers to the degree to which measures, which are theoretically related, of a construct are in fact related. It is examined by the use of composite reliability (CR) and average variance extracted (AVE). The critical value for CR and AVE are at least 0.70 and 0.50 respectively (Fornell & Larcker, 1981). Table 1 shows that all CR values, ranging from 0.892 to 0.918, fulfill the recommended level. The AVE values are also acceptable except the value of TrustSNS (0.485), which is slightly lower than 0.50. We also checked the Chronbach’s alpha (known as an internal consistency estimate of reliability of test scores, especially for Likert scale) for TrustSNS, TrustAD and IntentionINFO. The values are 0.861, 0.961 and 0.865 respectively (all above 0.6), therefore, the covergent validity is demonstrated.

Discriminant validity indicates the degree to which measures of a construct are not the reflection of some other constructs. It is illustrated by the low correlations between the measure of interest and the measure of other constructs (Fornell & Larcker, 1981). Discriminant validity can be demonstrated if the square root of AVE for each construct is higher than all the correlations between that construct and other constructs. As shown in Table 1, the bolded diagonal values are the square root of AVE for
each construct and the off-diagonal values are the correlations between constructs. The value of square root of AVE for each construct is higher than the correlations between it and other constructs. The results show an adequate discriminant validity of all measures.

4.4 Findings

![Figure 2 Structural Model](image)

*<p<0.05; **p<0.01; ***p<0.001

Figure 2 Structural Model

The results indicate that all of the structural paths are statistically significant in the research model and all hypotheses were supported. 37% of the variance in customers' intentions of adopting advertising information (IntentionINFO) and 31% of the variance in Trust in Advertising Information (TrustAD). Trust in advertising information (TrustAD) was found to be statistically significant to intentions of adopting advertising information (IntentionINFO) with a path coefficient of 0.60 (p<0.001). Trust in social networking sites (TrustSNS) was found to have a positive impact on trust in advertising information (TrustAD) with a coefficient of 0.55 (p<0.001).

5 DISCUSSION

5.1 Summary of Results

The online survey validated all of our hypotheses (summarized in Table 2).

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Expectation</th>
<th>Finding</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>Customers trust advertising information posted on SNSs based on their trust in SNSs.</td>
<td>Trust in SNSs has positive impact on Trust in Advertising Information.</td>
</tr>
<tr>
<td>H2</td>
<td>Customers are willing to adopt advertising information in SNSs to make purchase related decisions because they trust the information.</td>
<td>Trust in Advertising Information positively predicted Intentions of Adopting Advertising Information.</td>
</tr>
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</table>

Table 2 Summary of Hypotheses and Findings

As shown in Table 2, our findings indicate that SNS users are willing to adopt advertising information for purchase-related decision making if they trust the advertising information. Additionally, customers’ trust in SNSs is positively associated with their trust in advertising information, implying that customers’ trust can be transferred from SNSs to the advertising information posted on them. Our findings therefore theoretically explain the formation of trust in e-commerce advertising in SNSs and its impact on purchase related intentions. At that time when customers notice the advertising while browsing the SNS, the advertising information is still an unfamiliar target to them (if they have not had a chance to receive any information about the product before). If we assume that consumers’ attitude towards the retailers is neutral, a rational way to build up trust in the advertising is therefore based on the customers’ trust towards the SNSs (the known sources). Our findings suggest that trust in social networking sites is an important antecedent for developing trust in advertising information posted on the platforms. In other words, consumers trust the e-commerce advertising in SNSs because they trust the SNSs they used, and the trust transfers from medium to the content on it.
Theory of reasoned action (TRA) suggests that people’s attitude leads to their behavioral intentions. Customers’ attitude towards the e-commerce advertising determines their intentions to adopt the advertising information. Our findings indicate that if customers trust the advertising they will be willing to adopt the advertising information to make purchase related decisions. Our research model can explain 37% of the variance in intentions of adopting advertising information, therefore, there must be other factors influencing customers’ adoption intentions. E-commerce advertising is only one of the channels for customers to get product information and definitely they will receive positive advice about the product from the product advertisement. However, customers will further collect information about the product from other channels, such as online forum, online reviews and friends’ advice. The information can be either positive or negative. Therefore, the combination of information from different sources may influence consumers’ intentions of adopting advertising information to make purchase related decisions.

5.2 Implications for Social Commerce

Our study provides implications for social commerce. The e-commerce advertising in SNSs is similar to the social advertising to some extent. Still, there is no universally accepted definition for social advertising, it is generally considered as a kind of advertisement that relies on social networks and social relations in generating, targeting, and delivering marketing communications (Bakshy et al. 2012; Li & Shiu 2012; Tucker 2012). Being different from e-commerce advertising, social advertising takes advantage of the social functions of SNSs to disseminate advertising information. For instance, social advertising systems can automatically send advertisement to consumers when their friends of the same SNSs are affiliated with the brand, product or organizations in the SNSs. Consumers will be attracted by social advertising because their friends in the same SNSs like the products or they share the same preference of the products with their online friends. Instead of just posting advertisement on SNSs, a large number of brands have already set up their fan pages on Facebook, Twitter, and YouTube. Social advertising starts to play an important role in social commerce.

E-commerce advertising in social networking sites can be considered as social advertising when the online marketers directly send the advertisement to consumers even there is no social connections between them. Therefore, we believe that our research model is also applicable under the context of social commerce. Hence, social impact will be considered as one of our considerations to further enrich our research model. In reality, not all Facebook acquaintances are an individual’s close friends whose preference or recommendation would influence an individual’s purchase related decisions, therefore, trust in SNSs and trust in advertising information is more important for customers’ intentions to make purchase related decisions.

6 CONCLUSION

Our study provides valuable insights for practice and research. First, it confirms that trust can be transferred from the media of information, a social platform, to the information published on it. This provides implications for both operators of social media platforms and online marketers. On one hand, if a social platform wants to attract more users or advertisers to do business on it, it needs to increase its credibility. For example, SNSs can well design their website and improve their institutional structure such as privacy policy, user regulations and security assurance. On the other hand, if online marketers intend to attract more customers to make purchase, it is necessary to choose a social platforms with good reputation to do advertising. Furthermore, as discussed, our study sheds some light on social commerce practices.

From a theoretical perspective, the phenomenon that trust transfers from SNSs to advertising information posted on it illustrates that trust can be transferred from a context to a target. There are two types of trust transfer according to the prior research, trust can be transferred between targets and between context. The prerequisite of trust transfer is the perception of the association between two objects. Our study demonstrates that trust can be transferred from a context (the social networking sites) to a target (the advertising) when individuals perceive the association between the context and
the target. Additionally, we divided the ADTRUST scale (Soh et al. 2009) into two parts and revised the items from the cognitive dimension and emotional dimension of the ADTRUST scale to measure trust in advertising. The intentions of adopting advertising information measures were revised from the items of behavioral dimension of the ADTRUST scale. The results demonstrate that the ADTRUST scale can be divided to measure trusting beliefs and trusting intentions separately. It further provides implications for advertising researchers to measure these two constructs in the future studies.

7 LIMITATION AND FUTURE STUDY

This study has several limitations that serve as suggestions for our future research. First, we only focus on SNSs as a medium of e-commerce advertising. Our future study can be carried out in other social platforms such as online forum or blog. Second, most of the respondents were from the Mainland China, there may exist cultural and regional differences which may lead to the bias of study. Third, as mentioned, we had not included the social impact in social media platforms which may have influences on the advertising information adoption. In the future study, we intend to include the social features in our study to investigate the role of social advertising in the context of social commerce.

References


