

SOCIAL SHARING BEHAVIOR UNDER E-COMMERCE CONTEXT

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Abstract

In the era of Web 2.0, social networking sites play an important role in generating online information. People create billions of shares such as web pages or videos with friends on these sites every month. The share on the social networking site is visible to all of her or his friends and could be clicked by them and generates traffic back to the website where the information is from. In order to benefit from the social media traffic, e-commerce websites facilitate consumers with many sharing channels on web pages. With the intention of motivating consumers to share, some e-commerce websites such as group-buying websites offer referral reward. In this study, we explore consumers' social sharing behaviour on e-commerce websites. We are going to test whether consumers like to share e-commerce information such as products, discounts or coupons on social networking websites or traditional point-to-point communication media such as email or instant messengers and whether referral reward and its information visibility affects consumers' sharing behaviour. Focus group interviews are conducted and 2x2 between-subject laboratory experiment will be carried out to test our hypotheses and preliminary findings from focus group interviews.

Keywords: Social sharing, Social network sites, Instant Messenger, Social tie, Crowding effect, Information disclosure, Laboratory experiment.

1 INTRODUCTION

Looking back at 2010, there was dramatic development for SMO (Social Media Optimization) along with the booming of Facebook, Twitter and other social networking platforms. People like to share the web pages with friends on these social networking sites. For instance, Facebook users are sharing 25 billion things a month (Siegler 2010). With the introduction of Facebook “Like” button, it makes easier for people to share with friends whatever they like online. During the first 24 hours of the introduction of “Like” button last year, Facebook served more than 1 billion “Likes” (Siegler 2010).

It is simple for website administrators to add several social sharing buttons on their web pages such as Facebook “Share” or Twitter “Tweet this”. However, there are hundreds of social networking sites all over the world currently. In order to facilitate people to share interesting videos, news, information or online products with their friends via their preferred channels, several companies aggregate social sharing buttons and provide a simple widget for websites. These social sharing widgets always contain most popular social networking sites and traditional sharing media such as email and MSN messenger. These social sharing widgets offer us rich data on social sharing behavior. Addthis, the social sharing widget which is installed on more than 7 million domains and support more than 300 services, reported that Facebook represented 44% of sharing volume in 2010 and grew by one third from 2009 (Addthis 2010). Looking across the continent, more than 120000 websites have used Jiathis which is one of the biggest social sharing button providers in China. In January 2011, Qzone was the favourite social sharing medium and was clicked 3466557 times on Jiathis widgets. Sina Weibo (Twitter-like application) was the runner-up and was used 2292303 times on Jiathis widgets (Jiathis 2011).

These shares on social networking sites can generate traffic back to the websites. When a person shares a web page on Facebook, her or his friends can see this link and it is possible for them to click the link and check the information on those web pages. It is more efficient compared with traditional sharing media such as email or MSN messenger which are normally used as point-to-point communication channel. For some websites, they receive more traffic from social networking sites. Fox News received 5.50% traffic from Facebook and 1.18% from Google News while CNN received 5.92% from Facebook and 1.77% from Google News (Hopkins 2011). According to the data from bShare, which is another social sharing button provider in China, each share on Tencent Weibo could bring back 26 unique visitors on average (bShare 2010a). This traffic could generate more profits for e-commerce websites. For online ticketing service Eventbrite, each shared link on Facebook results in 11 new visits to Eventbrite and \$2.52 worth of ticket sales and Facebook now sends more traffic to Eventbrite than any other source, including Google (Schonfeld 2010).

Based on the previous paragraphs, we can conclude that social sharing can result in more traffic back which is especially important for e-commerce websites. However, do people like to share information or products on these e-commerce websites? According to a study from Chadwick Martin Bailey and iModerate Research Technologies, entertainment is the primary reason people share content and 72% of consumers say they share content because it's interesting or entertaining (iModerate 2010). bShare reported that the shares on entertainment and video websites could result in much more traffic back in November 2010 in China (bShare 2010b). How to facilitate and motivate consumers to share on e-commerce websites is the key research topic of us.

Concerning facilitating the social sharing, are social networking sites the preferred media for consumers to share e-commerce information such as products, discounts or coupons? In 2010, email was the second favorite sharing media used on Addthis widgets and Gmail was the most fast growing media (Addthis 2010). Followed by this, we come up the first research question:

- Do online consumers like to share the product information via social networking sites to all of their friends? Or just via email or Messengers to several targeted friends?

Currently, some e-commerce websites offer the referral reward mechanism with the intention of motivating consumers to share. For instance, Groupon and other group-buying websites offer \$10

reward for each successful share which means other consumers click that referral link and purchase the deal on the group-buying website for the first time. However, it is still a question whether this referral reward mechanism is effective enough to motivate consumers to share. Do consumers really wish to receive referral reward, especially when the information of referral reward mechanism is disclosed to others? Followed by this, we come up the second research question:

- Which referral reward mechanism (no reward, get the reward or share the reward with the friends who accept the share) do consumers like to choose when the reward information is disclosed to others (public condition) or the reward information is not disclosed to others (private condition)?

With the purpose of addressing the above two questions, we employ laboratory experiment with 2x2 between-subject design as research methodology and group-buying website as research context. Before conducting the laboratory experiment, focus group interviews are used to obtain preliminary findings about consumers' social sharing behavior and attitudes towards referral rewards. Drawing on social capital theory and motivation crowding effect, we explain and test whether consumers prefer to share deal information on group-buying website with friends via social networking site and which referral reward mechanism consumers like to choose when the information of referral reward mechanism is disclosed to others or not disclosed to others.

2 THEORETICAL FOUNDATION AND HYPOTHESIS DEVELOPMENT

2.1 Social capital

Social capital is defined as “the sum of the resources, actual or virtual, that accrue to an individual or a group by virtue of possessing a durable network of more or less institutionalized relationships of mutual acquaintance and recognition” (Bourdieu & Wacquant 1992). It is distinguished between bridging and bonding social capital (Putnam 2000). Bridging social capital is referred as “weak ties” which are loose connections between individuals (Granovetter 1982). Bonding social capital is referred as “strong ties” which are close connections found between individuals such as family and close friends.

Social capital is found to be linked with job hunting, public health and many other positive social activities. The social capital under online context, especially when social networking sites are widely adopted, started to be explored recent years. A major topic concerning online social capital is whether the use of social networking sites increases people's number of “strong ties” or “weak ties”. Donath and boyd (2004) hypothesize that online social networks may not increase the number of “strong ties” a person may have, but may increase the “weak ties” a person could form. Ellison et al. (2007) empirically tested that certain kinds of Facebook use can help students accumulate and maintain “weak ties”, because it enables users to maintain such ties cheaply and easily. Lewis et al. (2008) suggests that people maintain both strong ties and weak ties on social networking sites such as Facebook. But the number of weak ties is larger compared with the number of strong ties and the relationships between friends on social networking websites could be considered as “weak tie” relationship. Actually, Facebook enables managing a large network of weak ties (Ellison et al. 2007).

People try to find their previous friends who are currently disconnected or learning about acquaintances via Facebook or other social networking sites. It is different from point-to-point communication media such as email or MSN messenger with which people normally send information to one or several friends each time.

Pairs in the social network who maintain “strong ties” are more likely to share what resources they have (Lin & Westcott 1991). When people share something on Facebook, all of his or her friends (both close friends and acquaintances) can see the share. However, people can send emails or messages via Messengers to one or several friends who probably need that information. These friends can be assumed to have “strong ties” with that person. Moreover, according to the study

from Chadwick Martin Bailey and iModerate Research Technologies, 58% of consumers say they share content because they think it will be helpful to the recipients (iModerate 2010). So for online e-commerce information such as products, discounts or coupons, people may like to share them with their “strong ties” that need this information via email or messengers. Thus we hypothesize:

H1: Consumers prefer to share online e-commerce information via point-to-point communication media (e.g. email or messengers) compared with social networking sites.

2.2 Motivation Crowding Effect

The motivation crowding effect suggests that external intervention via monetary incentives or punishments may undermine, and under different identifiable conditions strengthen, intrinsic motivation (Frey & Jegen 2001). So buyers’ willingness to share the deal with others (intrinsic motivation) could be undermined by offering small amount of referral reward (crowding-out effect) or strengthened by offering collective benefit option (crowding-in effect). Ariely et al. (2009) experimentally examines that extrinsic monetary incentives have a detrimental effect on prosocial behavior due to crowding out of image motivation and are more likely to be counterproductive for public prosocial activities than for private ones. Currently, Groupon and other group-buying websites offer \$10 for each successful referral which means another consumer accepts the share and purchase the deal for the first time on the website. These e-commerce websites wish to encourage consumers to share the deal information by offering monetary incentives. Moreover, the referral reward information is disclosed to others. When the other consumers accept the share and purchase on the website for the first time, they know that the consumer who shares this information could get \$10 as referral reward. However, this extrinsic monetary incentive which is disclosed to others could crowd-out the sharing motivation and it is even less effective on motivating consumers to share compared with offering no referral reward. When the information of referral reward mechanism is not disclosed to others, the detrimental effect of extrinsic monetary incentives may less likely to occur and consumers may like to accept the referral reward when sharing the deal information to others (Ariely et al. 2009). Thus, we hypothesize:

H2: Consumers prefer to give up or share the reward when the referral reward information is disclosed to others, and get the reward when the referral reward information is not disclosed.

3 RESEARCH METHODOLOGY

Laboratory experiment with 2x2 between-subject design is employed as research methodology and group-buying website is implemented as research context. The conditions differ in the social sharing medium facilitated and the visibility of referral reward strategy. The subjects in the experiment are assigned either social networking sites or point-to-point communication medium as sole sharing channel. Before sharing, subjects choose one of the referral reward strategies (give up reward, get the reward or share the reward) under the condition either the strategy chosen is disclosed to others or not. The experiment is carried out in a university in China. In order to identify the social sharing media offered during the laboratory experiment and obtain preliminary findings about consumers’ social sharing behavior and attitudes towards referral rewards, focus group interviews are conducted.

3.1 Focus Group Interviews

Two focus group sessions are conducted. There are 5 interviewees in each session and all of them are students in the university in China. Most of the interviewees have group-buying experience and some of them have shared deal information or received the referrals before. When talking about the referral, they all mention that they prefer to share or receive the referral personally with close friends via QQ (ICQ-like instant messenger) or MSN messenger. Although email can be used as point-to-point personal communication tool, none of the interviewees like to share deal information or receive the referral via email. They said “e-mail is not real-time communication tool” and “e-mail is only for

official purposes”. Renren is the most widely used social networking site among interviewees. However, they would not share the deal information via Renren and the referral on Renren would not attract their attentions or even annoy them since the referral did not target them. Some of the interviewees said “I never saw any group-buying deal information shared on Renren by friends. If some people share this kind of information, I would ignore that”.

Concerning the referral reward, some of interviewees do not care about it. One interviewee said “I have shared a deal with my friends successfully and I know there is referral reward. But I did not check that later”. So we can assume that the referral reward of 10 RMB offered by group-buying websites is a small amount for consumers. Most of interviewees do not think that their friends shared deal information with them via MSN messenger with the intention of obtaining the referral reward. However, if some people share the deal on Renren, they may have the impression that person like to get the referral reward. Most of the interviewees do not feel comfortable with the referral reward. One interviewee said “I feel guilty when getting the reward since my friends have to purchase the deal” and others said “I share the deal with friends and they purchase online. The websites earn money and give me 10 RMB. It seems that I work for group-buying websites”.

Based on the results obtained from focus group interviews, we can conclude that consumers prefer to share group-buying information with close friends via QQ or MSN messenger. The referral reward as extrinsic monetary incentive has detrimental effect on consumers’ sharing motivation. In the next step, we conduct laboratory experiment to test our hypotheses and preliminary findings from focus group interviews.

3.2 Laboratory Experiment

The experiment uses a 2x2 between-subject design. For the social sharing medium, we select MSN messenger as point-to-point communication channel and Renren as social networking site. The following referral reward strategies can be chosen before sharing: give up the reward, get the reward of 10 RMB or share the reward with the friend who accepts the referral and purchase the deal (5 RMB for both). We observe the number of subjects who share the deal when either sharing medium is provided and the referral reward strategy chosen when the information is disclosed to others (public condition) or the information is not disclosed to others (private condition).

In order to have “double-blind” setting, experiment administrators are recruited first. These administrators are trained on how to conduct the experiment and the procedure of our experiment. However, they will not be informed about the purpose and the treatment of the experiment. Two pilot experiments are carried out first to examine the experiment design.

The whole experiment is divided into two stages. In the first stage, subjects are expected to establish “strong ties” and “weak ties” through series of tasks. In the second stage, they are facilitated with computers and observed sharing behavior on a group-buying website. Before the experiment, subjects are grouped into different groups based on their personal information provided in the application such as major, class, dorm number and home town. 18 subjects are recruited for each session and these 18 subjects are separated into 3 groups. Subjects who already know each other are selected into the same group. Others are randomly assigned to each group.

During the first stage, the administrator first briefs the subjects about the purpose and the procedure of the experiment. Subjects are required to introduce themselves one by one at the beginning. They should introduce their personal information and interests. After the introduction, all subjects may have first impressions on others. In order to have more interactions among subjects and establish “weak ties”, a topic is assigned to them to have a general discussion. Through the discussion, subjects have the possibilities to express their personal views and unique characteristics which could be distinguished from others. At the end of the discussion, paper-based survey is conducted to collect the information of social tie establishment.

Afterwards, the administrator leads the groups to the places scattered in the computer room to ensure that they do not disturb others while playing games. Each group will be required to play mafia game. In our experiment, we adapt the version of mafia game with one policeman and one mafia. Cards are supplied in each group for them to assign the roles randomly. The experiment administrator terminates the game in 30 minutes. Through playing mafia games, subjects in small groups are expected to establish relatively “strong ties” due to more interactions and they are more familiar with others’ personalities and characteristics.

After terminating the mafia game, the experiment goes in the second stage. The administrator gathers all subjects and assigns each of them a computer which scatters in the lab to make sure that subjects can not see computer screens of others. The second stage of the experiment is separated into 3 rounds. In the first round, all subjects are required to finish the online survey which gathers the information of social tie establishment during the first stage. The survey can be completed in 5 minutes. At the same time, a group-buying website is shown to 2 subjects in each group. The deal on the group-buying website is the product with at least 30% discount and the price of the deal is around 20 RMB. Subjects can place their orders on the website. The minimum required number of buyers is 5. If the deal is on at the end of experiment, those subjects will be given the coupon which can be redeemed later and their participation reward for the experiment will be deducted by the price of the deal. This information is explicitly displayed on the website. For the social sharing channel, subjects will be provided either Renren or MSN messenger.

When Renren is provided as the only sharing medium, each subject is pre-assigned a unique Renren account. By default, each subject is assigned 2 “strong ties” and 4 “weak ties” as Renren friends. Each subject is required to sign in Renren account after finishing the survey and stay signing until the end of the experiment. For the subjects assigned the group-buying website, they can share the deal information on Renren. Before sharing the deal information, subjects need to sign in the group-buying website with their Renren account name and password and choose the referral reward strategies: give up the reward, get the reward (10 RMB) or share the referral reward (5 RMB for each) with the subject who accepts the share and buys the deal in the end. After choosing the referral reward strategy, subjects can click “Share” button and share the deal information on Renren. For the public condition when the information of referral reward is disclosed to others, the referral reward strategy chosen by the subject is added along with the title of the deal in the referral information. They are informed about this public condition protocol before making sharing decisions. When MSN messenger is provided as the only sharing medium, each subject is pre-assigned a MSN messenger account and has 2 “strong ties” and 4 “weak ties” as friends by default. Each subject is required to sign in MSN after finishing the survey and stay signing until the end of the experiment. Subjects can copy the referral information provided by the website which contains the title and URL of the deal and send it to others via MSN messenger. For the public condition, the referral reward strategy chosen by the subject is added in the referral information.

After 10 minutes, the administrator terminates the first round and asks all subjects to leave the computer lab for a while. After several minutes, subjects are allowed to return back to the lab and sit at the same place as before. The second round starts and another 2 subjects in each group are shown with a different group-buying website. The deal is a different product but with similar discount rate and price. These subjects can buy the deal or share the deal. The other 4 subjects in each group surf online freely at the same time. 10 minutes later, the second round finishes and all subjects leave the computer lab again. When they return back to the lab, the third round starts and the last 2 subjects in each group are shown with another different group-buying website. However, the discount rate and the price deal remain similar. These subjects can buy the deal and share the deal while the other 4 subjects in each group surf online freely. At the end of the third round, a post survey is conducted. After finishing the post survey, the administrator distributes the participation reward to all subjects, coupons to the subjects who purchase and the referral reward to the subjects who earn it. For the public condition when the information of referral reward is disclosed to others, the administrator will announce the referral reward strategies chosen by subjects.

4 CONCLUSIONS

As the increasing popularity of social networking sites, people like to share online information with friends via these sites. These shares could generate traffic back to the websites where the information is from. With the purpose of benefiting from the huge social media traffic, e-commerce websites always facilitate consumers with many sharing channels on web pages. Nevertheless, whether consumers like to share e-commerce information such as products, discounts or coupons on social networking websites or traditional point-to-point communication media is still a question of us. Moreover, whether the existing referral reward strategy positively affects consumers' sharing behavior has not been tested. The visibility of the referral reward strategy may also have effect on consumers' sharing behavior and reward strategy preferred.

Based on the results obtained from focus group interviews, we can conclude that consumers prefer to share group-buying information with close friends via instant messengers. The referral reward as extrinsic monetary incentive has detrimental effect on consumers' sharing motivation when referral reward information is disclosed to others. Laboratory experiment is going to be carried out to test our hypotheses and preliminary findings from focus group interviews.

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