USER ACCEPTANCE OF SOCIAL SHOPPING SITES
Social Comparison and Trust

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Abstract: This paper describes a study on user acceptance of an emerging e-commerce technology: social shopping websites. Leveraging the power of social networking technologies with online shopping, social shopping sites have emerged in recent years to address the fundamental nature of shopping as a social experience. Despite tremendous business interest and anticipated potential benefits, some central issues remain such as whether users will adopt such websites and the factors that affect the adoption. Incorporating social science theories, this study extends the Technology Acceptance Model (TAM) with social factors such as an online shopper's tendency to social comparison, and trust in information privacy and data security. Results provide significant support of the extended model. Directions for future research are discussed.

1 INTRODUCTION

Online social networking and social media technologies continue to gain recognition in the popular press (Vascellaro et al. 2011). Seeking to tap into the potentials of these technologies for E-commerce, businesses are exploring ways to combine the power of social networking with online shopping for better service and new business opportunities. For example, there is an upward trend of merchants creating ads and retails pages on Facebook and Myspace, with the intention of attracting online social network users and their friends (Needleman 2010). Additionally, a new wave of start-up firms are developing text mining algorithms to track "social relationship data" between online users, that can be used to target behavior-oriented ads. However the evidence is still inconclusive that these are the best online platforms to increase sales using social networking.

Social shopping sites have emerged as another platform to combine online social networking with online shopping. Gathering people in an online place to exchange shopping ideas, social shopping sites offer features similar to social networking sites such as personal blog and profile webpage, with the addition of E-commerce tools and software to allow users to easily copy product pictures and post them on their web pages. Users can also post product recommendations, create wish lists, comment on items, and make purchases. The result is the creation of online social shopping communities. Examples of social shopping sites include Kaboodle.com, ShopStyle.com, ThisNext.com, and Wists.com, all launched between 2006 and 2007.

Social shopping aims at addressing the fundamental nature of shopping as a social experience. Despite tremendous business interest and anticipated potential benefits, some central questions remain. Will consumers adopt social shopping technology? What are the factors that lead to the adoption? Although technology adoption in general and e-commerce adoption in particular are both well studied, the specificity of social commerce clearly calls for further theoretical development. Such understanding will also better inform business managers who make strategic decisions regarding the integration of social networking and online commerce. Additionally, system designers will have important insight that may lead to improved functionality, design, and use of such systems.

2 CONCEPTUAL BACKGROUND

To answer these questions, this research utilizes the Technology Acceptance Model (TAM) (Davis 1989). TAM has been recognized as one of the most powerful models in examining the acceptance of

new IT. Adapted from the Theory of Reasoned Action (TRA) model, TAM posits that two beliefs – perceived ease of use (PEOU) and perceived usefulness (PU) - determine one's behavioral intention to use a technology. While the parsimony of TAM makes it easy to apply to a variety of situations, the leanness of the model is also considered as its key limitation. The model lacks the ability to help business managers or system designers to understand the factors that contribute to the adoption or abandonment of new IT. As a result, a number of studies have been conducted to examine additional antecedents to IT use (e.g., cultural dimensions (Mao and Palvia 2006)).

This study proposes two additional constructs as key antecedents to the adoption of social shopping sites: tendency to social comparison (TSC) and trust. Social comparison is an essential social phenomenon where human beings compare themselves with others for self-evaluation and information seeking. Rooted in social science, the original theory of social comparison treated social comparison as a secondary choice when objective information to evaluate oneself is not available (Festinger 1954). Subsequent research suggests that social comparison is a central feature of human social life (Buunk and Gibbons 2007). In this study, tendency to social comparison is defined as the degree to which an individual tends to compare his or her opinions with others, and be influenced by others. Recent studies have found that individuals differ quite a bit in their tendency to compare themselves with others (Buunk and Gibbons 2007). A related yet different construct that has been examined in extended TAM research is social influence (Hsu and Lu 2004), which is defined as the degree to which an individual perceives that it is important that others believe he or she should use the new system. While social influence measures an individual's compliance with social norms under pressure, the tendency to social comparison factor operates through an individual feeling bond with likable sources, and accepting information from outside sources.

The second construct, trust, is important in business transactions and the adoption of new technologies. Studies have shown that trust is particularly important in E-commerce because of the limited human interactions between the shopper and the vendor (Palvia 2009). In online shopping, previous studies have found that factors contributing to consumers' trust in online stores are related to personal information privacy and data security. Research suggest that privacy is the number one consumer issue facing Internet use, and continues to

be the main concern affecting online behavior such as website personalization (Chellappa and Sin 2005) and online trading (Lee 2009). Data security concerns such like security breaches of online vendor's information systems and interception of transactional data are also important in customer trust. Prior studies suggest that when privacy and data security are perceived to be low, consumers are reluctant to give out personal information over the web (Chen et al. 2004).

3 RESEARCH MODEL AND HYPOTHESES

Based on TAM and the two additional variables described above, a research model is proposed with five variables: Perceived Ease of Use (PEOU), Perceived Usefulness (PU), Tendency to Social Comparison Online (TSCO), Trust, and Behavioral Intention to use social shopping sites (BI). Figure 1 shows the research model.
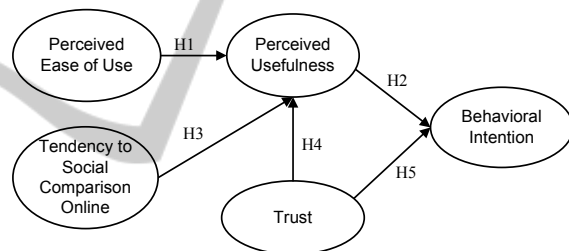

Figure 1: Research Model.

According to TAM, the hypothesized relationship among PEOU, PU, and BI are specified below

• H1: Perceived Ease of Use will positively affect Perceived Usefulness of social shopping websites.

• H2: Perceived Usefulness will positively affect Behavioral Intention to use social shopping websites.

Given the social nature of shopping, tendency to social comparison is postulated to have an impact in user's adoption of social shopping sites. Empirical studies of online shopping suggest that the provision of recommendations and consumer reviews increase the perceived usefulness of the website (Kumar and Benbasat 2006). These findings are consistent with marketing research indicating that consumers are influenced by other consumers in their decision making process, such as information seeking, alternative evaluation, and choice (Friedman and

Fireworker 1977). Given the social nature of shopping and the features specific to social shopping websites, it is postulated that people who are more likely to compare and be influenced by others are more likely to find the social shopping sites useful (H3). Thus the hypothesis is:

• H3: Tendency to Social Comparison Online will positively affect Perceived Usefulness of social shopping websites.

Many studies have shown that trust is crucial in business and social interactions that are characterized by a dependency on another party combined with a lack of control over that party. Empirical studies have demonstrated that trust significantly affect perceived usefulness of information systems such as E-commerce and ERP systems (Gefen 2004). In particular, research indicates that consumers' trust is determined by their concerns about information privacy and security measures of online stores (Chen et al. 2004). In this study, we measure trust in terms of privacy concerns and security measures in social shopping sites, and hypothesize that increased level of trust with the social shopping site will be associated with increased level of perceived usefulness of the website and intended use of the website.

• H4: Trust in the sites will positively affect Perceived Usefulness of social shopping websites.

• H5: Trust in the sites will positively affect Behavioral Intention to use social shopping websites.

4 DATA COLLECTION

Data were collected through a survey conducted in spring 2008 and spring 2009. The survey was given to undergraduate business students at a university in the northeastern region of United States. Subjects were instructed to use a specific social shopping site, Kaboodle.com, and to explore its various features. Kaboodle.com was chosen for this study given it is the leading social shopping site at the time of the research, with about 2.5 million visitors each month as of spring 2009 (Kasteler 2009) and presently over 14 million monthly visitors as of April 2011 (www.kaboodle.com/zm.about). The site provides many features supporting social shopping activities. The features subjects were instructed to explore include unique features on social shopping sites such as shopping soul mates and compatibility tests, shopping groups, and featured shoppers, as well as

traditional E-commerce functions such as browsing by brands and searching. Subjects were then asked to write up and submit a short essay reflecting on the features provided on the website. Extra course credits were awarded for subjects' participation in the survey. The precise purpose of the study and the research model were not discussed with the subjects.

After completing the assignment, students were given the URL to participate in the online survey. In constructing the questionnaire, the PEOU, PU, and BI items were adapted from Davis (Davis 1989). Items for the Tendency to Social Comparison scale were adapted from Gibbons and Buunk (Gibbons and Buunk 1999) study. The trust scale was adapted from Chen et al. (Chen et al. 2004) on perceived trust of virtual stores in terms of information privacy and data security. All items were measured on a seven-point scale ranging from strongly disagree (1) to strongly agree (7).

5 DATA ANALYSIS AND RESULTS

Among a total of 157 students, 117 valid responses were collected, resulting in the response rate of 74.5%. To examine the hypotheses and research model, the data were analyzed using Structural Equation Modeling (SEM) and SmartPLS software (Ringle et al. 2005). This approach allows simultaneous analysis of the measurement model (factors), and the structural model (path analysis), and has been widely used. In the measurement model, the reliability of the constructs as measured in the AVE and composite reliabilities of the different measures all exceed the recommended 0.70 level, indicating that the measures are robust. Tests on convergent validity and discriminant validity were conducted, and the results supported the measurement model. Analysis on the mean and standard deviation (SD) for each of the main constructs in the model reveal that subjects reported overall positive attitude towards the social shopping site, and found it easy to use, useful, trustworthy, and are likely to use it in their shopping tasks in the future (mean varies between 4.20 and 4.99 and SD varies between 1.15 and 1.57). Details on the measurement model are not discussed due to space limitations.

Figure 2 shows the results of the structural model. The test yields results of path coefficients (β), which indicates the positive and negative relationships between the constructs, the strength of

the relationships, and their statistical significance. The test also yields squared multiple correlations (R^2) values, which indicate the amount of variance of the dependent construct that can be explained by the independent constructs.

Note: Path Coefficients
*** path is significant at .001 level;   * path is significant at .05 level;
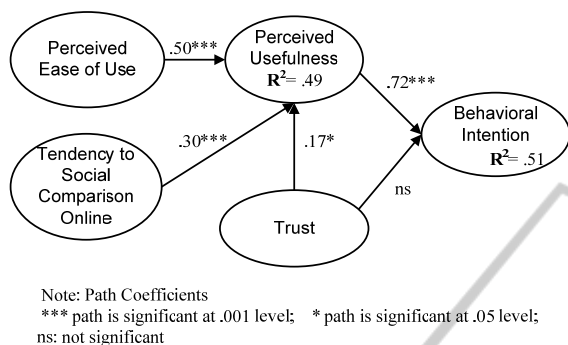ns: not significant

Figure 2: Research Model Results.

Overall the model accounts for 51% of variance in behavioral intention and 49% in PU. PEOU is a strong antecedent to PU (β= .50, p<.001), and PU has a strong effect on BI (β= .72, p<.001). Tendency to Social Comparison Online has a significant effect on PU (β= .30, p<.001). Trust affects PU (β= .17, p<.05), but not BI directly.

Thus hypotheses H1-H4 were supported. H5 was not supported.

6 DISCUSSIONS

This study examined factors associated with one's intention to use social shopping websites. The significant relationship between perceived usefulness and the intention to use these kinds of site for online shopping has important practical considerations. As the use of social media continues to grow among Internet users and consumers, our results strongly suggest that businesses should consider the potential power associated with integrating online social networking technologies with their e-commerce strategies.

The study revealed that trust affects PU (with a coefficient of .17), suggesting the importance of protecting user's privacy and strengthening data security to build trust. Individual user's tendency to social comparison affected how much they perceived the website as useful (with a coefficient of .30), pointing to importance of designing features that support easy comparison with other online shoppers.

One interesting result is that trust did not affect BI directly. The effect was through PU. This result indicates that in the context of social shopping, trust does not lead directly to the acceptance of such websites, although it does lead to perceived usefulness of the sites. An explanation for this may be that the online consumer may already have a certain level of trust associated with the usefulness of online shopping activities, therefore the difference between an online storefront and a social shopping site is not a differentiating factor.

In the open-ended questions, study participants reported that one of the main reasons they would adopt the website in future shopping activities is because of the social interactions with other shoppers online: "I would use Kaboodle over other online shopping sites because it has a more personable feel and the recommendations for other products come from people instead of computer generated outputs." "What I liked best is the ability to meet people. It allows for a more personal connection and a more trusted opinion." "Amazon is also more of an individual experience while shopping online. Kaboodle being a social shopping website makes shopping a little bit more fun."

The social features of the website not only enable social interactions among web users, but can also serve other purposes such as making new discoveries of products online. "I find the people functions of Kaboodle the most useful. The shopping soul-mates and compatibility test really helped me discover new gift ideas and it was neat to see other people's profile lists and similar tastes that they had to me." "I would (use the website in the future) because it would allow me to see what people with shopping habits similar to mine to see what they like and purchase, and can help me decide on gifts and purchases in the future."

When asked about concerns that prevent them from using the site in the future, privacy concerns topped the list. "I may have privacy issues because it is very interactive with others, which I believe could create easier access for other to hack into my account and learn about my information." "I am not able to limit what others see on my profile." Another issue that was pointed out was the trust in other shoppers. "For me, shopping has always been a social activity. I go with my family or my friends to get their input on certain items. I found it difficult to trust the opinions of the other online shoppers at Kaboodle.com simply because I did not know them." This suggests that for social shopping sites to be truly useful, the credibility of the website and its users are critical.

7 CONTRIBUTIONS AND FUTURE RESEARCH

This research is among the first to empirically examine the merging of social networking with E-commerce technologies for consumer online purchasing. Theoretically, this research contributes by extending the Technology Acceptance Model with factors extracted from social comparison theory and trust theory. The two additional factors: tendency to social comparison and trust were significant in the model in addition to PEOU and PU. A new scale, tendency to social comparison, was developed and empirically tested as reliable.

Understanding consumer perceptions and intentions to use a social shopping website have direct management implications. A recent study empirically confirmed the economic value associated with online user reviews and product sales through an investigation that used text mining algorithms (Ghose and Ipeirotis 2009). In the study, a clear relationship emerged between user-generated product information and reviews and online product sales. The combined empirical evidence from their study with this one, which shows overall favorable attitudes towards the adoption of web sites that go beyond consumer reviews and enables consumers to enjoy the social aspects of shopping online, demonstrates that the strategic integration of online products sales with online social networking is very important.

From a practical perspective, the current research model suggests that in addition to focusing on ease of use and usefulness, the site should allow users to easily compare their shopping experiences and opinions with others, while also fostering a sense of trust by protecting privacy with strong data security. The result can produce a greater likelihood that consumers will find the site useful, use the site, and increase product sales. Regarding trust on privacy and data privacy, firms that experiment with ways to combine social networking with E-commerce may face information privacy violations if they are not transparent in their data collection activities (Steel 2010). Some companies are addressing the privacy concerns by providing users with more information and controls on the data that being tracked (Valentino-Devries 2010). The potential value of the social shopping website is that users voluntarily create shopping profiles to aid in their own shopping. Because the profile data is not personally identifiable, the relevant value of the content can be shared and integrated with other users without violating personal information privacy.

One possible direction for future research is to examine the type of online shopping tasks that are most suitable for social shopping websites. Will users prefer using social shopping sites than traditional E-commerce site for certain shopping activities, such as browsing or searching (Hong et al. 2004)? Will they prefer the site when they are more involved with the product, i.e., when the product is more relevant to them? Also, will the strength of the social ties affect users' trust of such shopping sites, such as family and friends vs. other online shoppers? With the growing popularity of social media and E-commerce technology integration, research in this area is timely and important.

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