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# Information Sharing in the Context of Social Media: An Application of the Theory of Reasoned Action and Social Capital Theory

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## ABSTRACT

Social media technologies are increasingly driving e-commerce activities. The intertwining of social media systems and e-commerce systems are creating new social commerce business models. At the core of these new business models is the need for individuals to upload information. This paper researches individual's information sharing behaviors in social media sites. With the goal of explaining the factors which drive or inhibit individual's information sharing, this research integrates factors from the Theory of Reasoned Action and Social capital Theory. Our research model identifies factors which influence individual's attitude and intentions toward sharing information in social media sites. In addition, by comparing the research results between female and male groups, we discovered significant gender differences in factors that influence information sharing behaviors. Lastly, practical and theoretical implications are discussed.

### Keywords

Social media, information sharing, gender

## INTRODUCTION

Social media technologies enable individuals to create, share, and exchange personal information and ideas via online virtual communities. Social media has been a market that is completely made up of interacting users and has become a platform where users share and discuss their own experience with each other about everything. Brand managers also have a vested interest in understanding consumer online information sharing behaviors. As the e-commerce and integrated social media channels provide close connections to the consumer, brand managers are able to reach their audience directly in a very personal manner. They can also leverage these connections to receive feedback from target markets, feedback perhaps related to product lines, reputation management, as well as customer service. The social media connection is useful to gauge consumer satisfaction and perform market research only to the extent that consumers are willing to share information. While corporate use of social media is reported to improve organizational performance (Gray et al. 2011; Wagner and Majchrzak 2007), to better leverage social media's ability to garner consumer feedback, firms want to understand the factors that influence or perhaps inhibit users' information and knowledge sharing with brands on social media sites.

In today's information age, the spread of information is quick on social media. There is not any doubt that social media has been a main tool for users to share information online. Prior research has utilized social capital theory and social cognitive theory to study the direct impacts of various constructs (e.g. trust and social tie) on users' information/knowledge sharing behavior on social media sites (Chai et al. 2011; Chiu et al. 2006; Hsu et al. 2007; Lu et al. 2010). However, there are important factors that may influence people's attitude toward information sharing on social media that are not captured by these studies. While this research does utilize Social Capital Theory, our research model differs from these prior efforts by its utilization of the Theory of Reasoned Action. The results of this study proved a more comprehensive perspective on the determinants of attitude toward information sharing behavior in the context of social media.

Our aim of this study is to provide a comprehensive understanding on why and what motivate social media users to share information online. The research questions are 1) what factors determine user's attitudes and decisions to sharing behavior in the social media context?, and 2) what personal characteristics impact users' information sharing behavior in the social media context?.

## THEORETICAL BACKGROUND

### Theory of Reasoned Action

The theory of Reasoned Action proposed by Fishbein and Ajzen (1975) provides a general theoretical model of behavior that focus on attitude and social beliefs. Specifically, TRA is based on the proposition that an individual's behavior is determined by an individual's behavior intention to perform that behavior. Applying TRA to the context and research question of sharing information on social media sites would suggest that

actual information sharing behaviors are best predicted by an individual's intention to perform those behaviors, which in turn are determined by the individual's attitude and subjective norms regarding sharing information on social media sites. An individual's attitude towards sharing information is formed by his/her general feeling and behavior about the consequences of sharing his/her information on social media sites. Subjective norms are defined as "an individual's perceptions of significant others' evaluation of sharing information on social media sites". TRA will provide us the primary theoretical lens for developing the research model utilized in this study.

### Social Capital Theory

Social capital is defined as "the sum of the actual and potential resources embedded within, available through, and derived from the network of relationships possessed by an individual or social unit" (Nahapiet and Ghoshal 1998p. 243). Social capital is argued to be composed of three dimensions: the structural, the relational, and the cognitive aspects. Moreover, (Coleman 1990) identified two characteristics of social capital in common: 1) they constitute some aspect of the social structure, and 2) they facilitate the actions of individuals within the structure. Therefore, social capital includes all the resources such as the network, the people, and the relationships through the network.

### Research Model

Social media design features, security and personal factors are the determinants that will affect users' attitude and information sharing behavior. Specifically, social media are characterized by interactivity and social presence (Kaplan and Haenlein 2010). Privacy is usually a major concern that influences user's behavior on the Web (Chai et al. 2011). In addition, we also examine commitment, social ties and outcome expectations in our research model. Our research model is shown as following.

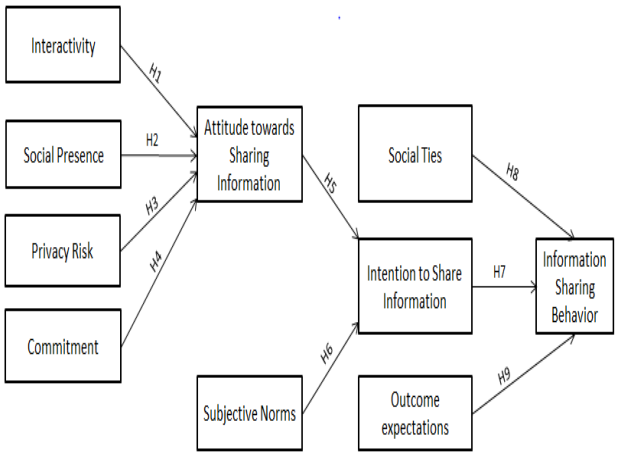


**Figure 1. Research Model**

## HYPOTHESES DEVELOPMENT

Interactivity is generally considered to be a central characteristic of new media. Referring to Web 2.0 application, one of its impact capabilities is to "facilitate collective action and social interaction online" (Parameswaran and Whinston 2007, p. 762). Interactivity is a core characteristics of social media enabling participants to freely send, receive, and process content for use by others. Researchers have suggested interactivity could be defined as a multi-dimensional measure (McMillan 2005; Szuprowicz 1995). This multi-dimensional measurement is helpful as social media users interact with the social media provider, with its content, messages and information, and interact with other members as well. In the context of social media such as blogs, Lu et al. (2010) demonstrate that all the three interactions of interactivity have positive impacts on user's the degree of satisfaction of blog. Therefore:

*H1: Interactivity will positively impact users' attitude toward information sharing in the context of social media.*

Short et al. (1976) defined social presence as "the salience of the other in a mediated communication and the consequent salience of their interpersonal interactions" (p.65). Social presence is another characteristic on social media sites, which is used as a feature to identify different types of social media (Kaplan and Haenlein 2010). In a recent study of the effects of media characteristics on user satisfaction, social presence is found to positively impact both process satisfaction and outcome satisfaction (Tang and Wang 2011). In the context of social media, social presence is a core technology characteristic which can act to create a more approachable and comfortable environment among communication entities. Users are more willing to interact with each other under such a high social presence environment. Therefore:

*H2: Social presence will positively impact users' attitude toward information sharing in the context of social media.*

Prior studies have suggested that information privacy concerns influence individual's attitude such as the willingness to conduct online transactions (Van Slyke et al. 2006) and the willingness to share personal information (Dinev and Hart 2006). Perception of privacy risk concerns have been reported to negatively influence people's willingness to conduct online transactions with a Web merchant (Van Slyke et al. 2006). In the context of social media, we propose that the perceived privacy risk related to opportunistic behavior of obtaining and using personal information shared by users in social media sites. This perception of risk makes social media users less involved in information sharing behavior, as individuals will try to minimize the risk and its potential negative outcomes. Thus, our hypothesis is:

*H3: Privacy risk will negatively impact users' attitude toward information sharing in the context of social media.*

Commitment is defined as the perception of belonging and being involved in a social media community. Prior research confirms the impact of organizational commitment on employee's behavioral intention. For example, Ahuja et al. (2007) found the negative relationship between organizational commitment and employees' turnover intention. Regarding the impacts of commitment on social media use behavior, users are more likely to be involved in the social media sites when they feel more committed to that community. Therefore:

*H4: Commitment will increase users' attitude toward information sharing in the context of social media*.

Generally, an individual's attitude toward information sharing is associated with that individual's intention to share information online. Attitude has been found to have positive influence on behavior intention decisions in various domains, including technology adoption (Hsu and Lin 2008).

*H5: Users' attitude is positively associated with their intention to share information in the context of social media.*

Subjective norm is one of the most important contribution of TRA and has been used to study individual behavior intention in IS discipline. Researchers have indicated that subjective norm has positive influence on people's behavior intention such as technology adoption (Hsu and Lin 2008). Therefore,

*H6: Subjective norms increase users' intention to share information in the context of social media.*

TRA suggests that an individual's behavior intention is associated with his/her actual behavior. In the context of social media, an individual will be more likely to share information if he/she has greater intention to share information on line than others. Thus, we hypothesize:

*H7: Users' Intention to share information is positively associated with actual information sharing in the context of social media.*

In social media, we argue that social ties represent a participant's perceived strength of social relationship with other members within a particular social media community. Increased levels of social interactions aid in users knowing each other better and increase the likelihood that they will share their important information and knowledge. Prior studies indicate that social ties have positive impacts on knowledge sharing behaviors on social media blogs (Chai et al. 2011) and virtue communities (Chiu et al. 2006). Therefore,

*H8: Social ties will positive impact users' actual information sharing behavior in the context of social media.*

Prior research finds positive impacts of outcome expectations on knowledge sharing behaviors in virtual communities. Specifically, Hsu et al. (2007) found the positive influence of personal outcome expectations on knowledge sharing behavior in virtual communities. Chiu et al. (2006) found that community-related outcome expectations are significantly associated with knowledge quality. Information sharing behaviors on social media sites are therefore expected to be influenced by user's outcome expectations. Therefore:

*H9: Outcome Expectations will positive impact users' actual information sharing behavior in the context of social media.*

## RESEARCH METHOD

### Data Collection and measurement

An online survey at a large US university was conducted. Participants were asked questions about their perceptions of social networking systems and their information sharing behavior. After incomplete surveys were deleted, 405 valid responses remained. All participants were currently sharing information using at least one social media site, with 62% of them sharing information on two or more social media sties.

The utilized measures were adapted from prior studies with each item measured using a seven-point Likert scale with anchors "strongly disagree/agree." The measures for interaction are from (Lu et al. 2010); social presence (Short et al. 1976); privacy risk (Yin et al. 2011); commitment (Liang et al. 2011); social ties (Chai et al. 2011); outcome expectations (Hsu et al. 2007); attitude (Fishbein 1963); subjective norms (Taylor and Todd 1995) ; intention (Venkatesh et al. 2012); information sharing behavior (Chai et al. 2011; Hsu et al. 2007).

### Results of measurement model testing

Factor loading and average variance extracted (AVE) were used to test the convergent validity and reliability of each variable in this study. We used established reliability and validity criteria to test the reliability and validity of the measurement instrument. Factor loadings were higher than 0.7, which is the common rule of thumb for acceptable item loading. All the CRs are higher than 0.9, which is greater than the critical value of 0.7, and AVE for each construct is above 0.5. The square root of AVE is greater than the inter-scale correlation for each construct. The analyses confirmed convergent validity and reliability of the measurement model. Discriminant validity is also satisfied.

### Result of structural model testing

**Table 1** reports detailed information of the standardized path coefficients and t-values for each path of the research model. Our analysis of research model supports all the hypotheses except H1. While we predicted Interactivity to have positive impacts on individual's attitude toward information sharing, a non-significant negative relationship was found. These results indicate that user's attitude depend on social presence, privacy risk, and commitment. Further, our results confirm that intention,

social ties and outcome expectations are directly associated with actual information sharing behaviors.

| Hypothesis | Standardized path coefficient | t-value | Support or not |
|---|---|---|---|
| H1 | -0.06$^{ns}$ | 1.45 | No |
| H2 | 0.32*** | 5.75 | Yes |
| H3 | -0.22*** | 5.05 | Yes |
| H4 | 0.28*** | 5.08 | Yes |
| H5 | 0.27*** | 5.06 | Yes |
| H6 | 0.39*** | 7.66 | Yes |
| H7 | 0.36*** | 6.19 | Yes |
| H8 | 0.32*** | 6.67 | Yes |
| H9 | 0.23*** | 5.08 | Yes |
| * 0.05 significance; ** 0.01 significance; ***0.001 significance; NS = statistically not significant. | | | |

**Table 1. Path Coefficients and t-Values for Whole Sample**

### Additional analysis of research model-test the role of gender

Gender differences have been reported in social media related studies, including continuance (Lin et al. 2013) and knowledge sharing (Chai et al. 2011). To statistically test gender difference on each relationship in this study, we used multi-group PLS (Qureshi and Compeau 2009).

| | Women (n=173) | | Men (n=232) | | t-value |
|---|---|---|---|---|---|
| | Path coefficient | t-value | Path coefficient | t-value | |
| H1 | -0.06$^{ns}$ | 0.95 | -0.07$^{ns}$ | 1.17 | 0.43$^{ns}$ |
| H2 | 0.34*** | 4.26 | 0.33*** | 4.08 | 1.66$^{ns}$ |
| H3 | -0.26*** | 4.22 | -0.19** | 3.19 | -11.03*** |
| H4 | 0.32*** | 3.74 | 0.23** | 3.14 | 11.94*** |
| H5 | 0.39*** | 5.85 | 0.16* | 2.06 | 29.62*** |
| H6 | 0.39*** | 5.79 | 0.38*** | 5.14 | 1.58$^{ns}$ |
| H7 | 0.35*** | 3.84 | 0.36*** | 4.56 | -1.16$^{ns}$ |
| H8 | 0.31*** | 4.23 | 0.31*** | 4.78 | 0.88$^{ns}$ |
| H9 | 0.28*** | 4.49 | 0.21*** | 3.33 | 11.22*** |
| * 0.05 significance; ** 0.01 significance; ***0.001 significance; NS = statistically not significant. | | | | | |

**Table 2. Comparisons of paths (female vs. male)**

**Table 2** shows the results of gender-based subgroup analysis of our study. The research results indicate that the influences of privacy risk and commitment on people's attitude towards information sharing are stronger for female than for male. And, the influences of attitude and outcome expectations on people's information sharing behavior are also stronger for female and for male. Together these findings support the importance of testing for and reporting results by gender.

## CONTRIBUTION, LIMITATION AND FUTURE RESEARCH

First, our research suggests that an integrative base model of TRA and SCT provides good prediction of social media users' information sharing behaviors. Incorporating social capital theory constructs into TRA model to explain social media users' attitude, intention and information sharing behavior enhances our understanding of people's information sharing behaviors. Additionally, we incorporated the social media technology features to better explain information sharing behaviors. Second, our study discovered significant gender differences in factors that influence information sharing behaviors. Significant gender-based differences suggest that people's attitude, intention and information sharing behavior depend on different factors and/or different weights of the same factors across genders. Few studies focus on gender differences in the social media related context. This study may inform and provide some initial understanding useful to guide future research.

Many businesses understand the importance of engaging the consumer where they are and embrace social commerce. Central to understanding consumer sentiment is the need to continually glean consumer product usage stories and general experiences with the product category. This research suggests that businesses can better gather information from the social media sites that are higher in social presence and reduce users' risk concerns. Information useful to launch viral marketing and world of mouth campaigns can be gleaned from social network sites. In addition, gender has been found a significant factor that impact people's information sharing. Gender difference findings provide important information to purveyors of social media and businesses engaged in social commerce. The gender differences reported here can aid designers of social media. In particular businesses could more effectively collect their information from their stakeholder depending on different gender. This will provide more effective strategy for those firms that are producing gender-oriented products and wanting to improve their marketing performance.

Our subjects were college students of different ages, which suggest a higher education, increased computer self-efficacy. Future research may look at diverse subjects. Although strong gender differences have been found in our study, future research should provide

stronger good theoretical foundations to explain found differences.

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