

Table of Contents

Do Investors Price Accruals Quality for Firms Charged with Poor Reporting Quality (<i>Ping Ke</i>).....	2
Can Social Networking Sites Be E-commerce Platforms? (<i>Min Chung Han and Youjeong Kim</i>).....	24
Assesing the Effectiveness of Industry Parks on Innovation of Tenant Firms: Park-level Evidence from China (<i>Rangfeng Qiu, Yongseok Jang, and Yan Zhang</i>).....	40

Editor

Kyung Joo Lee (University of Maryland-Eastern Shore, USA)

Review Board

Heungjoo Cha (Finance, University of Redlands, Redlands, USA)
 Albert Chi (Computer Science, University of Maryland - Eastern Shore, USA)
 David Choi (Management, Loyola Marymount University, USA)
 Cedric E. Daukims (Management, California State Polytechnic University - Pomona, USA)
 James Estes (Finance, California State University – San Bernardino, USA)
 Sung-Kyu Huh (Accounting, California State University - San Bernardino, USA)
 Liang Guo (Finance, California State University- San Bernardino, USA)
 Stephen Jakubowski (Accounting, Ferris State University, USA)
 Jeein Jang (Accounting, ChungAng University, Korea)
 John J. Jin (Accounting, California State University - San Bernardino, USA)
 Il-Woon Kim (Accounting, University of Akron, USA)
 JinSu Kim (Information System, ChungAng University, Korea)
 Young-Hoon Ko (Computer Engineering, HyupSung University, Korea)
 Du Hoang Le (Finance, National Economics University, Vietnam)
 Brandon Byunghwan Lee (Accounting, Indiana University - Northwest, USA)
 Habin Lee (Management Engineering, Brunel University, UK)
 Myong Jae Lee (Hospitality Management, California State Polytechnic University - Pomona, USA)
 Diane Li (Finance, University of Maryland-Eastern Shore, USA)
 Qiang Li (Finance, National University of Singapore, Singapore)
 Frank Lin (Information Systems, California State University - San Bernardino, USA)
 Yongsun Paik (International Business, Loyola Marymount University, USA)
 Kwangsun Song (Management, SoonChunHyang University, Korea)
 Hua Sun (Real Estate, Iowa State University, USA)
 Tae Won Yang (Finance, California State University - San Bernardino, USA)
 Sehwan Yoo (Information Systems, University of Maryland-University College, USA)
 MoonGil Yoon (Management Science, Korea Aerospace University, Korea)
 Sung Wook Yoon (Accounting, California State University - Northridge, USA)

1. Topics: All areas of business, economics, and information systems

2. Manuscript Guidelines/Comments:

Pan-Pacific Journal of Business Research (PPJBR) is a double blind peer reviewed Journal focusing on integrating all areas of business, economics, finance, and Information Systems.

PPJBR pursues high quality researches significantly contributing to the theories and practices of all areas of business, economics, and Information Systems. PPJBR is an academic journal listed on Cabell Directory. PPJBR consider for publication the following topics in all areas of business and economics including Accounting, Economics, Entrepreneurship, Finance, Hospitality Management, International Business, Marketing, Human Resource Management, Operation Management, Information Systems, Strategy, and Supply Chain Management:

- Current and new theories.
- New regulations and policies.
- Application of business and economic theories.
- Case studies exploring current issues
- Pedagogical issues in business education

3. Submission:

Authors are required to submit their article or manuscript electronically at jjin@csusb.edu

Before submission, the article or manuscript should not be published in any other journal. The article or manuscript should be in MS Office Word format. It should be written in a single space with a maximum number of 15 pages and 12 font size. Title, the name(s), affiliation(s), address(es), phone number(s), and email(s) of authors should be on the cover page. Contact author should be indicated. Only an abstract of the article or manuscript in 250 words, title, and 4 key words should be shown on the second page.

PPJBR generally follows the American Psychological Association (APA) guidelines. Reference should be presented in a separate sheet at the end of the article or manuscript. Tables, figures, footnotes, and their numbering should appear on the appropriate page. The usage of footnotes should be minimized. The decision of acceptance usually takes three months. After acceptance, PPBRI has a copy right for the accepted article and manuscript.

The article or manuscript should be submitted to: Dr. Kyung Joo Lee, Editor, Kiah Hall Suite 2110, Princess Anne, MD 21853. Phone: 410-621-8738. Email: kjlee@umes.edu.

Can Social Networking Sites Be E-commerce Platforms?

Min Chung Han*

New York Institute of Technology, USA

Youjeong Kim

New York Institute of Technology, USA

ABSTRACT

Social media is not just an online community where people meet, communicate, and share information virtually. The number of businesses using social media to promote products, and the number of social media seeking ways to increase revenues, have both grown rapidly in recent years. Consequently, there has been increased interest in social media commerce – systems whereby social media users could purchase products by clicking the “Buy” button on Facebook without leaving the site, just as they can now on Amazon.com or e-Bay. This study examines whether social media can grow as an e-commerce platform by answering the following questions: 1) How likely are social media users to purchase products on social media? 2) What types of products or social factors on the social media would successfully facilitate social media commerce? The result indicates that presence of a friend’s purchase history with a product did not generate a higher level of purchase intention, nor social media acceptance. Also, this study found that digital products induced higher levels of both purchase intention and social media acceptance than non-digital products. Findings are discussed, along with managerial implications and limitations in the study.

Keyword: Social Media Commerce, Social Media Commerce Acceptance, Purchase Intention, Product type

JEL classification: M31

*Corresponding author: mhan07@nyit.edu. Tel: 516 686 7720

Can Social Networking Sites Be E-commerce Platforms?

1. Introduction

As social media penetrates everyone's life so deeply – 64% of all American adults use social media, and the number increases to 90% among young adults between 18 and 29 (Perrin, 2015), marketing practitioners have begun using social media to connect with and attract potential customers who are on social media sites. In fact, as of 2015, 74% of Fortune 500 companies had a Facebook presence, and 78% of them used Twitter to engage with their customers. Only 9 of the Fortune 500 companies used no social media platforms (Barnes & Lescault, 2015).

Social media, by definition, comprises an online environment that allows people to share information (e.g., text, images, audio and video) with each other (Lin & Liu, 2011). This interpersonal interaction of social media allows marketers to build firm customer relationships (Grewal & Levy, 2016) by getting real-time feedback from consumers, and facilitating communication between marketers and customers. In addition, social media is a cost-effective way to promote a brand, communicate with customers and ultimately generate revenue. Without spending a lot of money, companies can create a “presence” on social media, where they can provide information about the company and its products, implement marketing campaigns, and receive feedback from customers (Baker, 2014; Kern, 2010).

There has developed considerable interest and effort among companies to employ social media not only to promote the products and lead consumers to visit their on/offline stores, but also to persuade consumers to *actually* purchase their products on social media sites. That is, consumers are able to finalize their purchase transactions on the site, as they do on Amazon.com or eBay.com.

The concept of using social media for online shopping – social media commerce – sounds relatively new, but some major social media sites have already attempted, collaborating with several commercial firms (Alba, 2015; Constine, 2015). For example, Facebook has a “Buy” button in collaboration with ecommerce software company Shopify. Pinterest's “Buy Pin” for users to buy products without leaving the Pinterest platform, has been in place since June 2015. Small- and medium-sized companies have also looked to social media commerce to gain an additional distribution channel and increase sales. For instance, Polkadot Alley, the women's apparel company based in Texas, has sold individual clothing items on the company's Facebook page. The company posts all items with price and product information individually on the page; then, customers reply under the post to order the items. Polkadot Alley has increased its sales from US \$400,000 to US \$1.5million in a year, thanks to Facebook e-commerce (Emerson, 2013).

We found quite a number of studies in this area of social media that have focused on the effect of social media on company outcomes, such as e-book sales, hotel bookings and movie box office ticket sales (Amblee & Bui, 2011; Duan, Gu & Whinston, 2008; Ye, Law, Gu & Chen, 2011). However, studies that have investigated consumers' actual intentions to use social media as an e-commerce platform are scarce. Considering that creating favorable user reactions is a critical factor for success with new technologies (Venkatesh, 1999), we think it is important to understand the potential use of social media as an e-commerce platform from the users' perspective. Thus, this study attempts to investigate whether social media can grow as an e-commerce platform by answering the following questions: 1) How likely are social media users to purchase products on social media? 2) What types of products or social factors in social media would facilitate the social media commerce? The first section of this paper discusses the definition of social media commerce,

which is a key term of this study, and reviews the relevant literature on social media-initiated e-commerce. The following section proposes hypotheses and research methodologies. The next section discusses the research findings. The final section discusses this study's contributions, limitations and future research, and practical implications.

2. Literature Review

2.1. Social commerce and social media commerce

Social commerce generally refers to social media-initiated, or -mediated online commerce. Due to the relative newness of the term, *social commerce* has been differently defined and variously used by researchers. For instance, Stephen and Toubia (2010) used the term social commerce for a social network of individual sellers only, not of companies, while other researchers (Dennison et al., 2011; Liang & Turban, 2011) used the term when traditional e-commerce sites like Amazon implemented social media features (e.g., word of mouth, networking) on their sites. Although the definition or usage of the term social commerce can vary, depending on its contexts or researchers, the practice that underlies the concept of social commerce is the use of social media-initiated or -mediated e-commerce for facilitating online purchasing of products or services (Curty & Zhang, 2011; Kim & Park, 2013).

The term *social media commerce* is a part of social commerce. It is referred to as e-commerce conducted on social media sites, which allows users to purchase products or services on a social media site, without the visitor leaving the site. In investigating the effects of Facebook's social network features, Suraworachet, Premisiri and Cooharajanane (2012) used the term 'F-commerce (Facebook commerce)' or 'social media commerce' to refer to an e-commerce activity, which allows users to buy goods on Facebook or other social media. This concept is similar to social commerce, but different in that it includes all social media-initiated e-commerce.

2.2. Attributes of social (media) commerce

As discussed earlier, social media has much potential to grow as a powerful marketplace for marketers due to the two most attractive qualities of social media: interactivity and connectivity.

2.2.1 Interactivity

Interactivity refers to the two-way communication between two parties, such as between person and person, between consumers and companies, and even between users and computers (Goldfarb & Tucker 2011; Hoffman & Novak, 1996). Interactivity is considered one of the most important components of building a relationship (Jo & Kim, 2003; Kelleher, 2009), because it influences each party through the communication medium (Liu & Shrum, 2002).

Social media provides cyberspace, where users engage in various forms of interaction. On social media, consumers can communicate with other consumers, and/or companies, by sharing photos/videos, leaving comments, and writing reviews, all of which have been found to influence a company's performance, e.g., e-book sales (Amblee & Bui, 2011). This interactivity has been found to positively influence customers' attitudes and purchase behaviors towards the companies and products (Han, 2014; Liang & Turban, 2011; Kim & Park, 2013). For instance, Olbrich and Holsing (2011) found that companies generate more profit from the members of social shopping communities' shopping trips than from non-members. This indicates that social interaction is a critical element in facilitating purchasing transactions. In addition, a higher level of interactivity

was also found to generate more responses, such as likes and comments, from fans of the company on social media (De Vries, Gensler & Leeflang, 2012).

2.2.2 Connectivity

Another essential feature of social media is the ability to connect people to each other (Chou et al., 2009; Pookulangara & Koesler, 2011). Connectivity plays a major role in how people accept and use social media. Boyd (2006), along with Fortien and Dholakia (2005) found that the main reason for adopting and using Facebook was people's desire to keep in touch with others. Interestingly, most social media users communicate with their existing social connections, such as keeping in touch with friends and peers who live both near and far (Ellison et al., 2007; Fortin & Dholakia, 2005), rather than establishing new connections. In addition, the tendency of users to communicate with people they already know makes users perceive social media commerce as more reliable than regular e-commerce (Wen, Tan & Chang, 2009).

2.3. Theoretical Framework: Social impact theory

Can social media be a more effective marketplace to influence consumers' attitudes and behaviors than any other media? An answer can be found in social impact theory (Latané, 1981), which describes the level of social impact is affected by strength, immediacy, and number of social connections. According to social impact theory, *the larger* the number of people, *the closer* to the target individual, and *the stronger* the relationship with the target individual, the greater the impact would be on the target individual's attitude change (Latané, 1981; Nowak, Szamrej & Latané, 1990). The strong tie between social media users and their friends was found to be an important influence on users' purchase intentions towards products and their intention to visit the site (Kwahk & Ge, 2012; Ng, 2013).

3. Research Model and Hypotheses

Facebook is one of major social media, with approximately 1.06 billion monthly active users (Dyson, Vickers, Turtle, Cowan, & Tassone, 2015). Facebook is an exemplar of social media; thus, the present study focuses on Facebook users' acceptance of using Facebook to purchase products. We also attempt to investigate the external factors (i.e., product type or social factors, such as a friend's purchase history) to influence Facebook users' intentions to use Facebook to buy products.

3.1. Social factor: Friend's purchase history

Social impact theory explains that individuals' attitudes are influenced by others, especially those close to them. For example, friends were found more influential in individuals' decision-making than strangers or acquaintances in an offline context (Brown & Reingen, 1987). This was also found to be true in an online environment. Facebook users were more influenced by messages about the product sent by Facebook friends than messages sent by strangers or product manufacturers (Kim & Srivastava, 2007; Schulze, Schöler, & Skiera, 2014). Similarly, online users tend to perceive the information sent from other users on social media as being more important than the information sent from companies (Mir & Zaheer, 2012).

These findings indicate that there is a hierarchy of trust in message senders; friends, or personal connections on social media are perceived to be more trustworthy than companies (Harris & Denis, 2011). It also explains why consumers wait for other users' opinions about a given product before purchasing it (Kim & Srivastava, 2007).

Overall, the opinions or messages from friends or some other trusted person on social media facilitate consumers' purchasing-decision process (Grewal & Levy, 2016; Harris & Denis, 2011).

Based on the previous research, it is plausible to assume that when a friend's purchase history is shared (e.g., "Your friend, John, purchased this product"), the user would generate a higher level of purchase intention toward the product, and would be more likely to use Facebook to purchase things. Hence, this study proposes the following hypotheses:

H1. The presence of a friend's purchase history of the product on Facebook will result in a higher level of Facebook users' purchase intention toward the product on Facebook and their intention to accept Facebook as an e-commerce platform, compared to no presence of friends' purchase history on Facebook.

3.2. Type of products

E-commerce activity is very sensitive to product types. A significant number of e-commerce studies have examined and found that certain types of products (e.g., luxurious/cheap items, or digital/non-digital products) were more successful in the e-marketplace (Rohm & Swaminathan, 2004; Vijayasarathy, 2002). For example, Rohm and Swaminathan (2004) found that convenience-seeking online shoppers were motivated by immediate possession of products; therefore, digital products, such as music CDs and computer software, generated more demand than non-digital products. In general, consumers are more inclined to use Internet shopping for intangible products (e.g., computer software, music) than tangible products (clothes, toys) (Phau & Poon, 2000; Vijayasarathy, 2003). Most studies have focused on regular online shopping websites, not social media; thus, considering that social media commerce also involves e-commerce activities, we state the following:

H2. In comparison to a non-digital product, a digital product will result in higher levels of Facebook users' purchase intentions and their intention to accept Facebook as an e-commerce platform.

3.3. Interaction effect between friend's purchase history and product type

As we discussed, social media provides cyberspace, where people communicate and share information. It enables users not only to maintain their existing network, but to establish new relationships. On social media, users easily influence and are influenced by other users, according to social impact theory. Although most studies have found that digital products were preferable to non-digital products in regular e-commerce websites (which are designed for facilitating purchasing transactions), the social factor, such as a friend's purchase history of the product, would play a role in influencing the users' intention to buy the product on Facebook or to use Facebook for a future purchase. Kooti, et al. (2016) argued that individuals tend to purchase the same products that are purchased by their friends. In that case, although the products are non-digital (e.g., jeans), if they are purchased by their social contacts, that knowledge would influence the user's purchase intention. In investigating the effect of social factors in different product contexts, Choi, Lee, and Kim (2011) found that the impact of social presence on the intention to reuse a product was greater on hedonic products than utilitarian products. It shows the possible presence of an interaction effect between the presence of social factor (i.e., a friend's purchase history) and the product type, leading to the following hypothesis:

H3: There would be an interaction effect between the presence of a friend's purchase history and product type.

4. Methods

4.1. Sample and procedure

A 2 (Social factor: the presence of a friend's purchase history vs. no presence of history) \times 2 (Product type: Digital vs. Non-Digital Product) between-subjects experiment was conducted to examine the effects of presence of a friend's purchase history and product type on the user's intention to buy the products on Facebook (i.e., purchase intention) and to use Facebook for future transactions (i.e., social commerce acceptance). We created four different versions of a Facebook mock-up page that showed a product (either digital or non-digital). The mock-up Facebook post about a product does not include any specific company name or movie title information, to rule out the brand effect of an existing famous brand or well-known movie title. The subjects were asked to imagine that Facebook has launched a new function for online purchases. The mock-up Facebook page is based on the real Facebook site skin image with a highlighted new function: a "buy" button, at the bottom of the product photo. The subjects were shown an announcement offering a pair of jeans or a streaming movie service. *Appendix A* shows the post for the streaming movie.

We recruited 152 undergraduate and graduate students and provided extra credit for completing the survey, between Nov.1, 2015 and Jan.1, 2016. Participants (N= 152; female =98, male=54) were randomly assigned to one of four groups: a digital product (i.e., streaming movie) with a friend's purchase history (group 1, N=37); a digital product without a friend's purchase history (group 2, N=40); a non-digital product (i.e., jeans) with a friend's purchase history (group 3, N=36); and a non-digital product without a friend's purchase history (group 4, N=39). Subjects' ages ranged from 18 to 27 (M=21.99). According to a Pew Research Center report (2015), 87% of people aged 18- 29 use Facebook, which is higher than 58% reported for the entire adult population. Seventy-four percent of college-educated people use Facebook. Given that, we deem that this student sample reasonably represents Facebook users in the United States.

4.2. Measures

In the study, questions and items of measure were adopted from previous literature and were measured on the seven-point Likert scale, with "1" meaning "strongly disagree" and "7" representing "strongly agree."

Two of the four mock-up pages included one of the most common American names, John Smith (John is the second most common first name and Smith is the most common surname) as a friend's name, so we could examine the effect of presence of a friend's purchase history. Regarding product type, jeans were chosen as the non-digital product and a streaming movie as the digital product.

The dependent variables, SNS commerce acceptance and purchase intention, were measured by adapting items from previous research. Regarding purchase intention, the items were adapted from Toukabri (2015) and Pavlou (2003). There were three items in the scale; for example, "If the on-line purchase-related functions become available, I intend to buy the product that I just saw on Facebook." The two items of social media commerce acceptance were adapted from Toukabri

(2015). One item was “I intend to use Facebook for on-line purchases in the future.”

5. Results

5.1. Reliability test

A reliability test was conducted for each dependent variable. Social media commerce purchase intention and its three items formed a reliable scale, as assessed by Cronbach's alpha ($\alpha=.899$). SNS commerce acceptance has two items and was tested by Pearson's correlation coefficient ($r=.768$) as a measure of reliability following previous research recommendations for a two-item scale (Cramer, Atwood & Stoner, 2006). The results showed that all the items in this study had achieved reliability.

5.2. Hypotheses Test

We employed a two-way between-subject ANOVA to examine the effects of a friend's purchase history and product tangibility on social media commerce acceptance and purchase intention. All tests of the hypotheses were conducted at a 5% level of significance.

Table 1. Analysis of Variance (ANOVA) result

DV	Purchase Intention			Social Commerce Acceptance		
Source	Df	F	Sig.	df	F	Sig.
Corrected Model	3	5.426	.001*	3	3.994	.017*
Friend History	1	5.044	.026*	1	5.943	.016*
Product Type	1	7.366	.007*	1	3.918	.049*
Friend*Product	1	4.065	.046*	1	2.171	.142
Error	148			148		
Corrected Total	151			151		

* $p < 0.05$

The overall model (Table 1) was statistically significant for both purchase Intention ($F = 5.426$, $p < 0.05$) and social media commerce acceptance ($F = 3.994$, $p < 0.05$).

Table 2. The means for purchase intention and acceptance

Dependent Variable	Friend's Purchase History with Product Information		Product Tangibility	
	Friend's History	No Friend's History	Digital Product	No Digital Product
Purchase Intention	2.56 (79, 1.26)	3.05 (73, 1.47)	3.09 (75, 1.37)	2.51 (77, 1.33)
Acceptance	2.67(79, 1.21)	3.19 (73, 1.45)	3.13(75, 1.36)	2.71(77, 1.32)

Note. standard deviations and numbers are in the parentheses (N , SD)

H1 predicted that the presence of a friend's purchase history would result in higher levels of purchase intention as well as a higher level of social commerce acceptance when compared to no presence of a friend's purchase history. The result (Table 2) shows that presence of a friend's purchase history ($M = 2.67$) gives lower levels of social commerce acceptance than no presence of friend's purchase history ($M = 3.19$). The result was similar to purchase intention, such that presence of a friend's purchase history ($M = 2.56$) gives lower levels of purchase intention than no

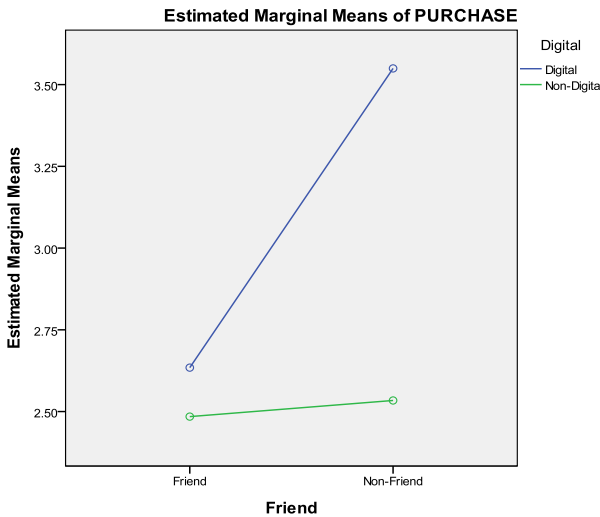
presence of friend's purchase history ($M = 3.05$). This is the opposite of what we expected. Therefore, H1 is not supported.

H2 was expected to show that a digital product would have a higher level of purchase intention and social media commerce acceptance than a non-digital product. The results reveal that a digital product ($M = 3.13$) has a higher level of social media commerce acceptance than a non-digital product ($M = 2.71$). Product information for a digital product ($M = 3.09$) also shows a higher level of purchase intention than a non-digital product ($M = 2.51$) as we expected. Therefore, H2 was strongly supported.

An ANOVA test shows (Figure 1) an interaction effect between friends' purchase history presence and product type (digital vs. non-digital) on purchase intention ($F=4.065$, $p=0.046$). The interesting finding here is in the case of the non-digital product: it did not matter to purchase intention whether the friend's purchase history was present or not. However, in the case of the digital product, the presence of their friend's purchase history lowered their purchase intention toward the product they saw on Facebook.

In terms of social media commerce acceptance, there was no interaction effect between a friend's purchase history presence and the product type on their social media commerce acceptance ($F=1.825$, $p=0.143$). Therefore, H3 is partially supported.

Fig. 1 Interaction effect on purchase intention



6. Discussion

As social media is expected to grow as an e-commerce platform, this study has attempted to test the potential use of social media commerce, where users are able to buy products on social media sites, without leaving the sites, like Amazon.com or e-bay.com. In an attempt to unveil the factors that facilitate the potential use of social media commerce, this study investigated the effect of social factor and product type on Facebook users' intention to use Facebook for purchasing products.

For this study, we tested two different types of products (digital product – a streaming movie, vs. a non-digital product – jeans) and a social factor (the presence of friend's purchase history vs. the absence).

First, we found that the presence of a friend's purchase history with product information generated neither a higher level of purchase intention nor social media acceptance, compared to no presence of friend's purchase history, thus disconfirming H1. Although extant research of social media suggests a positive influence of friends' messages on trust and purchase intention (Forma et al., 2008; See-To & Ho, 2014), messages from companies also have a positive and significant effect on consumer behavior, especially social media-prone customers (Kumar, Bezawada, Rishika, Janakiraman & Kanna, 2016) like our survey respondents. Moreover, advertising messages from commercial sources affect consumer attitudes and purchasing intentions, whereas advertising messages from close friends only affect consumer attitudes (Yang, 2012). Schülze, Scholer & Skiera (2014) found that direct messages from Facebook friends had greater effectiveness than broadcast messages, but it is important to note that this study did not use direct messages from friends; instead we used a company message with a friend's name and purchase history. Therefore, it is understandable that we did not receive the same effect, since the message was not directly from a friend.

Second, this study found that digital products induced higher levels of both purchase intention and social media acceptance, compared to non-digital products, thus supporting H2. This finding is consistent with previous research that has shown consumers are more inclined to shop online for intangible products than tangible products (e.g., Phau & Poon, 2000; Vijaysarathy, 2003). This result implies that digital products, such as music or movies, are better for penetrating the social media commerce market than are non-digital products.

Third, in the case of the digital product, this study found an interactive effect on acceptance of

Facebook as an e-commerce platform. That is, the presence of a friend's purchase history lowered Facebook users' purchase intention toward the product they saw on Facebook.

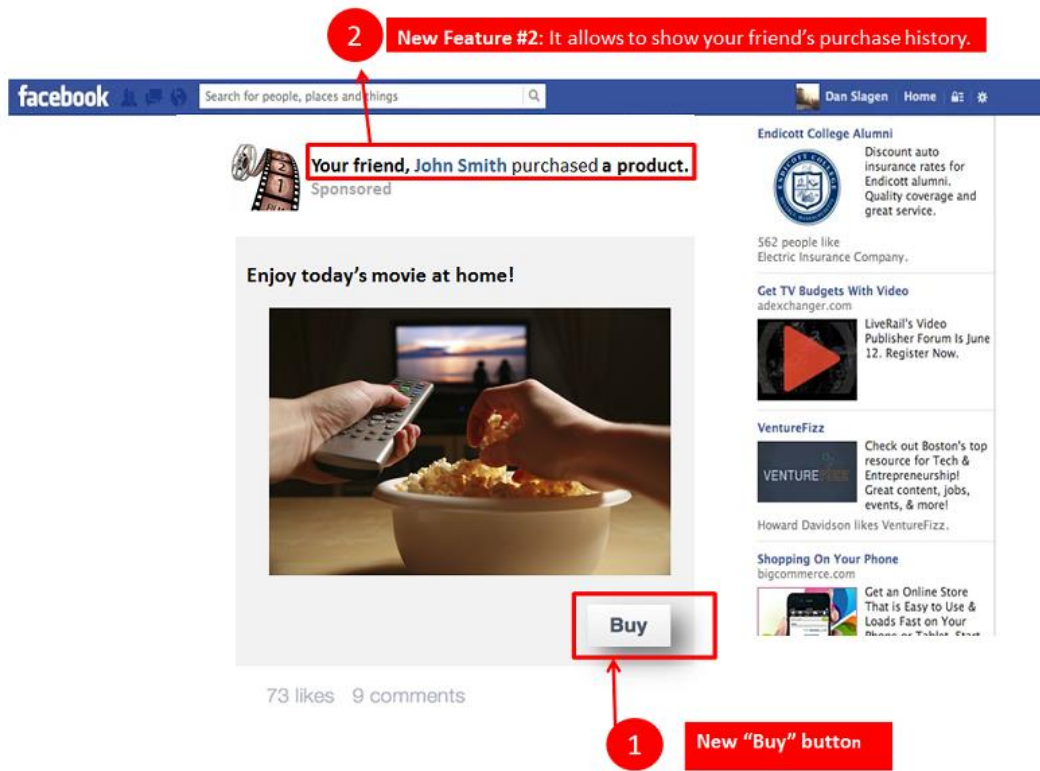
Like any research study, this study has several limitations. First of all, in terms of social factors, we tested the impact of presence of a friend's purchase history. For this study, we used a common American name as a friend's name. Since it was not real, and random, it could influence the results. As discussed earlier, the social impact is critically influenced by strength, closeness, and the number of contacts (social impact theory; Latané, 1981). This limitation suggests an approach to future study. That is, based on social impact theory, future researchers can use the user's actual friend's name and make several groups based on the user's perceived closeness. Furthermore, based on the area of the friends' expertise (e.g., Rachel is an expert of fashion, therefore her recommendation of the jeans would be trustable), the future study can further examine how this kind of social factor influences the users' purchase intentions.

Secondly, for the sake of simplicity, this study excluded the price factor, which is very important to consumers. Although we tried to rule out the brand name of the products (e.g., a brand of jeans, or a movie title), it is problematic to compare these products side by side since those products are very sensitive in terms of personal preferences. Therefore, it is important for future research to consider various aspects of products, considering the user's usage or taste.

In spite of several limitations, this study contains important practical implications. Contrary to the findings of social media studies, this study found that the social factor influences the user's intention to purchase products on social media negatively. That is, when the friend's purchase history was present, the user showed a lower level of purchase intention on Facebook than when the history was absent. Therefore, it is important for marketers to understand that the implementing of a social factor is sometimes risky or has no effect at all. As we discussed in the Limitations section, it might be fruitful to examine the various levels of friendship (e.g., expertise or perceived closeness).

Social media is not just an online community, where people meet, communicate, and share the information virtually. As the number of businesses using social media to promote products increases, and the number of social media, which seek to increase revenues grow rapidly, we hope this study will contribute to a better understanding of social media commerce for both marketers and consumers.

Appendix A.



References

- Alba, D. (2015). Pinterest now has a shop so more shoppers shop on Pinterest. *wired*. Retrieved from <http://www.wired.com/2015/11/pinterest-now-has-a-shop-so-more-shoppers-shop-on-pinterest/>
- Amblee, N., & Bui, T. (2011). Harnessing the influence of social proof in online shopping: The effect of electronic word of mouth on sales of digital microproducts. *International Journal of Electronic Commerce*, 16(2), 91-114.
- Baker, G. (2014). Using Social Media as a Cost-Effective Means of Marketing. *bakerlabs*. Retrieved from <http://bakerlabs.co/using-social-media-as-a-cost-effective-means-of-marketing/>
- Barnes, N.G. & Lescault, A.M. (2015). The 2015 Fortune 500 and social media: The 2015 Fortune 500 and Social Media: Instagram Gains, Blogs Lose. *Social Media Research*. Retrieved from www.umassd.edu/media/.../fortune500andsocialmedia/2015Fortune500AndSocialMedia.docx
- Boyd, D. (2006). Friends, Friendsters, and MySpace top 8: Writing community into being on social network sites. *First Monday*. Retrieved from http://131.193.153.231/www/issues/issue11_12/boyd/index.html
- Brown, J. J., & Reingen, P. H. (1987). Social ties and word-of-mouth referral behavior. *Journal of Consumer research*, 350-362.
- Choi, J., Lee, H. J., & Kim, Y. C. (2011). The influence of social presence on customer intention to reuse online recommender systems: the roles of personalization and product type. *International Journal of Electronic Commerce*, 16(1), 129-154.
- Constine, J. (2015). Facebook challenges Pinterest with news feed Buy Button for Shopify merchants. *Techcrunch*. Retrieved from <http://techcrunch.com/2015/06/10/never-leave/>
- Cramer, M. E., Atwood, J. R., & Stoner, J. A. (2006). Measuring community coalition effectiveness using the ICE© instrument. *Public Health Nursing*, 23(1), 74-87.
- Curry, R., & Zhang, P. (2011). Social commerce: Looking back and forward. *Proceedings of the American Society for Information Science and Technology*, 48(1), 1-10. <http://dx.doi.org/10.1002/meet.2011.14504801096>
- Dennison, G., Bourdage-Braun, S., & Chetuparambil, M. (2011). Social Commerce Defined. *IBM Whitepaper*. Retrieved from <http://www-148.ibm.com/tela/servlet/Asset/395425/Social%20Commerce%20Defined%20-%20ANZ.pdf>
- De Vries, L., Gensler, S., & LeeFlang, P. S. (2012). Popularity of brand posts on brand fan pages: An investigation of the effects of social media marketing. *Journal of Interactive Marketing*, 26(2), 83-91.

- Duan, W., Gu, B., & Whinston, A. B. (2008). The dynamics of online word-of-mouth and product sales—An empirical investigation of the movie industry. *Journal of retailing*, 84(2), 233-242.
- Dyson, B., Vickers, K., Turtle, J., Cowan, S., & Tassone, A. (2015). Evaluating the use of Facebook to increase student engagement and understanding in lecture-based classes. *Higher Education*, 69(2), 303-313.
- Ellison, N. B., Steinfield, C., & Lampe, C. (2007). The benefits of Facebook “friends:” Social capital and college students’ use of online social network sites. *Journal of Computer-Mediated Communication*, 12(4), 1143-1168.
- Emerson, M.L. (2013). E-Commerce Company Learns to Sell Directly on Facebook. *The New York Times*. Retrieved from http://boss.blogs.nytimes.com/2013/07/26/an-e-commerce-company-learns-to-sell-directly-on-facebook/?_r=0
- Fortin, D. R., & Dholakia, R. R. (2005). Interactivity and vividness effects on social presence and involvement with a web-based advertisement. *Journal of business research*, 58(3), 387-396.
- Goldfarb, Avi and Catherine Tucker (2011), “Online Display Advertising: Targeting and Obtrusiveness,” *Marketing Science*, 30, 3, 389–404
- Grewal, Dhruv., & Levy, Michael. (2016). *Marketing*. New York, NY: McGraw-Hill Education.
- Han, M. C. (2014). How Social Network Characteristics Affect Users' Trust and Purchase Intention. *International Journal of Business and Management*, 9(8), 122.
- Harris, L., & Dennis, C. (2011). Engaging customers on Facebook: Challenges for e-retailers. *Journal of Consumer Behaviour*, 10(6), 338-346.
- Hoffman, Donna L. and Thomas P. Novak (1996), “Marketing in Hypermedia Computer-Mediated Environments: Conceptual Foundations,” *Journal of Marketing*, 60, 3, 50–68.
- Jo, S., & Kim, Y. (2003). The effect of web characteristics on relationship building. *Journal of Public Relations Research*, 15(3), 199–223.
- Kelleher, T. (2009). Conversational voice, communicated commitment, and public relations outcomes in interactive online communication. *Journal of Communication*, 59(1), 172–188.
- Kern, S. A. (2010). Why a Solid Social Media Strategy is a Cost-Effective Marketing tool. *FaceItSocialMedia*. Retrieved from <http://www.faceitsocialmedia.com/2010/08/why-social-media-is-a-cost-effective-marketing-tool/>
- Kim, S., & Park, H. (2013). Effects of various characteristics of social commerce (s-commerce) on consumers’ trust and trust performance. *International Journal of Information Management*, 33(2), 318-332.

- Kim, Y., & Srivastava, J. (2007, August). Impact of social influence in e-commerce decision making. In *Proceedings of the ninth international conference on Electronic commerce* (pp. 293-302). ACM.
- Kooti, F., Lerman, K., Aiello, L. M., Grbovic, M., Djuric, N., & Radosavljevic, V. (2016, February). Portrait of an Online Shopper: Understanding and Predicting Consumer Behavior. In *Proceedings of the Ninth ACM International Conference on Web Search and Data Mining* (pp. 205-214). ACM.
- Kumar, A., Bezawada, R., Rishika, R., Janakiraman, R., & Kannan, P. K. (2016). From Social to Sale: The Effects of Firm-Generated Content in Social Media on Customer Behavior. *Journal of Marketing*, 80(1), 7-25.
- Kwahk, K. Y., & Ge, X. (2012). The effects of social media on E-commerce: A perspective of social impact theory. In *System Science (HICSS), 2012 45th Hawaii International Conference on* (pp. 1814-1823). IEEE.
- Latané, B. (1981). The psychology of social impact. *American psychologist*, 36(4), 343.
- Liang, T. P., & Turban, E. (2011). Introduction to the special issue social commerce: a research framework for social commerce. *International Journal of Electronic Commerce*, 16(2), 5-14.
- Liang, T. P., Ho, Y. T., Li, Y. W., & Turban, E. (2011). What drives social commerce: The role of social support and relationship quality. *International Journal of Electronic Commerce*, 16(2), 69-90.
- Lin, K. Y., & Lu, H. P. (2011). Why people use social networking sites: An empirical study integrating network externalities and motivation theory. *Computers in Human Behavior*, 27(3), 1152-1161.
- Liu, Yuping & L.J. Shrum (2002), "What Is Interactivity and Is It Always Such a Good Thing? Implications of Definition, Person, and Situation for the Influence of Interactivity on Advertising Effectiveness," *Journal of Advertising*, 31, 4, 53-64
- Mander, J. (2015). Daily time spent on social networks rises to 1.72 hours. *Global Web Index*. Retrieved from <http://www.globalwebindex.net/blog/daily-time-spent-on-social-networks-rises-to-1-72-hours>
- Mir, I., & Zaheer, A. (2012). Verification of social impact theory claims in social media context. *Journal of Internet banking and commerce*, 17(1), 1.
- Ng, C. S. P. (2013). Intention to purchase on social commerce websites across cultures: A cross-regional study. *Information & Management*, 50(8), 609-620.
- Nowak, A., Szamrej, J., & Latané, B. (1990). From private attitude to public opinion: A dynamic theory of social impact. *Psychological Review*, 97(3), 362.

- Olbrich, R., & Holsing, C. (2011). Modeling consumer purchasing behavior in social shopping communities with clickstream data. *International Journal of Electronic Commerce*, 16(2), 15-40.
- Pavlou, P. A. (2003). Consumer acceptance of electronic commerce: Integrating trust and risk with the technology acceptance model. *International journal of electronic commerce*, 7(3), 101-134.
- Perrin, A (2015, October 8). Social Media Usage: 2005-2015. *Pew Research Center*. Retrieved from <http://www.pewinternet.org/2015/10/08/social-networking-usage-2005-2015/>
- Pew Research Center (2015). *Demographics of Key Social Networking Platforms*. Retrieved March 14, 2016 from <http://www.pewinternet.org/2015/01/09/demographics-of-key-social-networking-platforms-2/>
- Phau, I., & Meng Poon, S. (2000). Factors influencing the types of products and services purchased over the Internet. *Internet Research*, 10(2), 102-113.
- Pookulangara, S., & Koesler, K. (2011). Cultural influence on consumers' usage of social networks and its' impact on online purchase intentions. *Journal of Retailing and Consumer Services*, 18(4), 348-354.
- Rohm, A. J., & Swaminathan, V. (2004). A typology of online shoppers based on shopping motivations. *Journal of business research*, 57(7), 748-757.
- Schulze, C., Schöler, L., & Skiera, B. (2014). Not all fun and games: Viral marketing for utilitarian products. *Journal of Marketing*, 78(1), 1-19.
- See-To, E. W., & Ho, K. K. (2014). Value co-creation and purchase intention in social network sites: The role of electronic Word-of-Mouth and trust—A theoretical analysis. *Computers in Human Behavior*, 31, 182-189.
- Stephen, A. T., & Toubia, O. (2010). Deriving value from social commerce networks. *Journal of marketing research*, 47(2), 215-228
- Suraworachet, W., Premisiri, S., & Cooharajanane, N. (2012, July). The Study on the Effect of Facebook's Social Network Features toward Intention to Buy on F-commerce in Thailand. In *Applications and the Internet (SAINT), 2012 IEEE/IPSJ 12th International Symposium on* (pp. 245-250). IEEE.
- Toukabri, M.T. (2015). The Real Stimuli in Popular Stores Authors. *Journal of Marketing Research & Case Studies*. 2015, DOI: 10.5171/2015.377050
- Utz, S., & Kramer, N. (2009). The privacy paradox on social network sites revisited: The role of individual characteristics and group norms. *Cyberpsychology: Journal of Psychosocial Research on Cyberspace*, 3(2), 2.
- Venkatesh, V. (1999). Creation of favorable user perceptions: Exploring the role of intrinsic motivation. *MIS quarterly*, 239-260.

- Vijayasathya, L. R. (2003). Shopping orientations, product types and internet shopping intentions. *Electronic Markets*, 13(1), 67-79.
- Wang, A. (2005). The effects of expert and consumer endorsements on audience response. *Journal of Advertising Research*, 45(4), 402-412.
- Wen, C., Tan, B. C., & Chang, K. T. T. (2009). Advertising effectiveness on social network sites: an investigation of tie strength, endorser expertise and product type on consumer purchase intention. *ICIS 2009 Proceedings*, 151.
- Yang, T. (2012). The decision behavior of Facebook users. *Journal of Computer Information Systems*, 52(3), 50-59.
- Ye, Q., Law, R., Gu, B., & Chen, W. (2011). The influence of user-generated content on traveler behavior: An empirical investigation on the effects of e-word-of-mouth to hotel online bookings. *Computers in Human Behavior*, 27(2), 634-639.