12-1-2017

Exploring Factors Affecting Social E-Commerce Service Adoption: The Case of Facebook Gifts

Stanislav Mamonov
Montclair State University, mamonovs@mail.montclair.edu

Raquel Benbunan-Fich
Baruch College

International Journal of Information Management 37 (2017) 590–600

Contents lists available at ScienceDirect

International Journal of Information Management

journal homepage: www.elsevier.com/locate/ijinfomgt

Exploring factors affecting social e-commerce service adoption: The case of Facebook Gifts

Stanislav Mamonov[a,*], Raquel Benbunan-Fich[b,1]

[a] Montclair State University, Department of Information Management and Business Analytics, Feliciano School of Business, 1 Normal Ave., Montclair, NJ 07043, United States

[b] Baruch College, CUNY, Statistics & CIS Department, Zicklin School of Business, One Bernard Baruch Way, Box B11-220, New York, NY 10010, United States

ARTICLE INFO

Keywords:
Social commerce
Technology adoption
Social network sites
Gift exchanges
Privacy concerns

ABSTRACT

Although social commerce is an important trend in practice, relatively few research studies have explored the impact of social commerce innovations launched within social networking sites. The deployment of a gift-giving service within a social networking site provides a unique opportunity to study the intersection of technological innovations and social norms and its potential to generate new revenue for ecommerce sites. Using Facebook Gifts as a real-world context for the study, we explore the factor structure of salient user beliefs influencing usage intention, and examine the relationships between beliefs and intention to use the service in a broader nomological network. Instead of adopting constructs from existing models, we started with the elicitation of salient beliefs and proceeded with successive stages of refinement to develop a suitable model. The empirical results show countervailing effects of perceived social utility and perceived convenience of the service on one hand, and low perceived value and privacy concerns on the other. A notable finding is the potential conflict arising between the expectations of effort associated with the procurement of a gift and the common perception of technology as reducing the required effort. The net result is that a technology-mediated gift service in the context of a social networking site runs counter to the social norms associated with traditional gift exchanges. This insight provides evidence of the dual challenge for social commerce initiatives. In order to be successful, new services in this area must leverage the potential of the technology as well as social practices.

1. Introduction

The continuous development of e-commerce has produced a noticeable shift in consumer spending away from traditional physical retailers to online vendors. As a result, e-commerce accounted for more than $341 billion in sales in the United States in 2015, and it is expected to continue its double-digit growth through 2017 (Zaroban, 2016). This substantial growth is due in part to social commerce, which integrates e-commerce, social media, and social networking sites. Social commerce affords the opportunity to leverage existing social connections and resources within the business value chain for a variety of purposes including product idea generation (Leimeister, Huber, Bretschneider, & Krcmar, 2009), production (Brabham, 2008), marketing (Kane, Alavi, Labianca, & Borgatti, 2014), and service and support (Chen, Marsden, & Zhang, 2012).

The increasing popularity of social networking sites presents a natural opportunity to expand B2C and C2C e-commerce. For example, Facebook, the largest social networking site, now boasts over 1.79 billion users worldwide ("Facebook Company Information," 2016). Usage statistics indicate that an average Facebook user spends 50 min per day on the site (Stewart, 2016). While the potential exists, the successful development of the social commerce opportunities requires an understanding of the interplay between the users, technology and social factors (Wang & Zhang, 2012). Consequently, the aim of this study is to investigate individual beliefs influencing the intention to use a gift-giving social commerce service offered within a social networking site.

Facebook Gifts service is the context for this study. The service represents Facebook's first explicit attempt to leverage social commerce and, as such, it offers a natural context to examine the factors that influence users' intentions to engage in social commerce. Facebook Gifts was the result of partnerships established with 1-800-Flowers, Starbucks, and other retailers. The service offered gift options including both physical goods, such as flowers, and digital products, such as electronic gift cards. In order to promote the adoption of the service, Facebook Gifts offers were tied to Facebook birthday notifications, such that a notification about a friend's birthday included a link offering to send a Facebook Gift.

* Corresponding author.
E-mail addresses: stanislav.mamonov@montclair.edu (S. Mamonov), rbfich@baruch.cuny.edu (R. Benbunan-Fich).
[1] Tel.: 646-312-3375.

http://dx.doi.org/10.1016/j.ijinfomgt.2017.05.005
Received 7 November 2016; Received in revised form 24 April 2017; Accepted 11 May 2017
Available online 30 June 2017

Gift exchanges serve an important role in the maintenance and development of social relationships (Sherry, 1983) and thus represent a significant social phenomenon. Gifts can carry economic, symbolic, and social value (Belk, 1996). Estimates suggest that Americans spent over $20 billion on gifts in 2013 (IBISWorld, 2014). Consistent with other commercial trends, consumers are increasingly purchasing gifts online (Heller, 2013). The selection of a gift-giving service offers a unique context to explore social commerce, not only because of the significance of gifts in social relations but also because the service is provided within a social networking site.

To investigate the factors influencing the intention to adopt Facebook Gifts, we use the Theory of Reasoned Action as the foundation. This theory posits that individual beliefs and subjective norms are key predictors of behavioral intentions in different spheres of human activity (Fishbein, 1979; Fishbein & Ajzen, 1975). Drawing from this theoretical foundation, we conduct three consecutive empirical studies. The first study seeks to elicit salient Facebook user beliefs with respect to Facebook Gifts. The second study examines the factorial structure of these beliefs. The third study, evaluates the predictive value of the relation between beliefs and intention to use Facebook Gifts in a nomological network of demographic and psychographic factors.

The results revealed a novel set of constructs that encompass beliefs that affected the intention to adopt the Facebook Gifts service. On the one hand, *perceived social utility* and *perceived convenience* had a positive relationship with the intention to use the service. On the other, low *perceived value* and *privacy concerns* had a negative effect on the adoption intention. *Perceived social utility* represents a novel construct in technology adoption research and it highlights the critical role of social considerations in social commerce adoption. We also discover that *low perceived effort* which is commonly a positive predictor of technology adoption intention, is a part of a higher order construct that reflects *low perceived value* of gifts available through Facebook Gifts thus undermining the service adoption intention. The remainder of the manuscript is structured as follows. First, we discuss the theoretical foundation of our work. Next, we discuss the methodology and we present the results. We conclude with a discussion of our contributions to theory and practice as well as study limitations and opportunities for future research.

2. Theoretical background

To develop the list of factors driving the adoption of a social commerce innovation (i.e. a gift service within a social networking site), we draw on the Theory of Reasoned Action (Fishbein, 1979; Fishbein & Ajzen, 1975). The core proposition of TRA is that individual beliefs as well as subjective norms influence behavioral intentions (Fishbein and Ajzen, 1975). TRA has been applied across a broad spectrum of human activities and it has proven its value by identifying beliefs which can be modified in order to influence behaviors (Sheppard, Hartwick, & Warshaw, 1988). While the Theory of Reasoned Action provides a general theoretical background, the salient beliefs that may predict the intent to engage in a specific action are always context specific; particularly when the context involves technology adoption. The identification of factors influencing technology adoption has been a prolific area of research in Information Systems (King & He, 2006; Schepers & Wetzels, 2007). The Unified Theory of Acceptance and Use of Technology (UTAUT2) (Venkatesh, Thong, & Xu, 2012), and the seminal Technology Acceptance Model (TAM) (Davis, 1989; Davis, Bagozzi, & Warshaw, 1989), posit that performance expectancy (perceived usefulness) and effort expectancy (perceived ease of use) play a key role in influencing technology adoption, but their influence varies with respect to the adoption stage. Accordingly, longitudinal studies have shown that perceived usefulness is a stronger predictor of adoption prior to use, whereas perceived ease of use becomes important in the early stages of system adoption as users begin to utilize the system (Venkatesh & Davis, 2000).

In technology adoption research, the central tenet of TAM and UTAUT2 is that perceived usefulness will be the major determinant of the adoption intention. The original conception of technology usefulness – developed in the context of workplace systems – defined it as "the degree to which an individual believes that using a system would enhance his or her job performance" (Davis, 1989). However, two additional factors incorporated by UTAUT2 recognize the importance of pleasure motive (Heijden, 2004) and habit (Khansa, Ma, Liginlal, & Kim, 2015; Kim, Malhotra, & Narasimhan, 2005; Ma, Kim, & Kim, 2014) in adoption and use of systems that transcend the typical workplace.

Both models, TAM and UTAUT2, are built on the foundation provided by the Theory of Reasoned Action (TRA). The subjective norms in TRA point to the importance of social factors in influencing individual behavior, but the technology adoption research produced conflicting findings on the role of subjective norms in technology adoption. The original TAM formulation suggested that subjective norms were not predictive of the technology adoption intention (Davis, 1989), while subsequent studies provided a more nuanced view in which subjective norms may be important in the early stages of technology evaluation, but not in continued use (Karahanna, Straub, & Chervany, 1999). Further, more recent studies uncovered complex interactions of gender and cultural values in moderating the effects of subjective norms in technology adoption (Srite & Karahanna, 2006). The effects may be nonlinear (Titah & Barki, 2009) and social inertia can also inhibit technology adoption (Polites & Karahanna, 2012). Exploring these normative influences in more depth will shed light on the particular factors that influence the adoption of social commerce.

2.1. Social commerce

Social commerce is formally defined as e-commerce that involves social media and social networks (Liang & Turban, 2011). Although the term has been used to define a particular area of ecommerce recently, consumers have been sharing insights about e-commerce products and services before the definition of social commerce. Yahoo is credited with the formal introduction of social commerce as an area of practice, with its pioneering design of features to support social feedback, information sharing and social connections among its users (Yahoo, 2005). At the same time, the proliferation of social media services, such as Facebook, Twitter, Instagram, Tumblr, among many others, offer new platforms to incorporate social inputs across business functions. As it is the case in other emerging fields, practice is evolving rapidly, while scholarly research in social commerce is lagging behind (Wang & Zhang, 2012).

Although academic research in social commerce is underdeveloped (Shanmugam, Sun, Amidi, Khani, & Khani, 2016), prior studies can be classified into two major streams. The first stream deals with the incorporation of social commerce innovations such as social presence, word-of-mouth, and social support within traditional commercial websites. For instance, a study of trust towards an online retailer has shown that social presence is an important factor influencing trust and the intention to transact on an e-commerce site (Gefen & Straub, 2004). In B2C, electronic word-of-mouth has led to higher sales (Chevalier & Mayzlin, 2006). In C2C, an experimental study found that the introduction of social commerce features can create substantial economic value (Stephen & Toubia, 2010). Prior research has shown that perceived availability of social support is positively related to social commerce adoption and continuance intention on a micro-blogging service (Liang, Ho, Li, & Turban, 2011). However, research has also shown that social feedback can have a negative impact on consumer creativity and satisfaction with products (Hildebrand & Häubl, 2013).

The second stream of research in social commerce deals with the incorporation of e-commerce within traditional social networking sites. The basis for the success of this type of social commerce is established with studies examining information dissemination through social media

and its effects. For example, an experimental study established a positive impact of the number of social connections on the quality of available information and accuracy in prediction markets (Qiu, Rui, & Whinston, 2014). In contrast, another study about the spread of rumors through social media indicates the potential negative effects of information dissemination (Oh, Agrawal, & Rao, 2013). Most studies of social media appropriation have shown the potential for both positive and negative effects, depending upon the feature and context of each study (Cheung & Thadani, 2012).

Aside from these aspects exemplified through selected studies, to the best of our knowledge, contemporary research has not addressed the specific factors that influence the success of a revenue-generating social commerce innovation within a social networking site. In this context, a gift-giving service presents a unique opportunity to examine the intersection of social connections and e-commerce, when the latter is deployed within a social networking site. Previous research on gift exchanges sheds light on the relevant factors. This area is reviewed in the next section.

2.2. Gift exchanges in social relationships

A "good or service voluntarily provided to another person or group" is considered as a gift (Belk, 1996). Gifts are central to the development and maintenance of social relationships. The value of a gift can be established at different levels including economic, functional, social and expressive value (Sherry, 1983). In particular, the social value of a gift is especially important when a gift is presented in front of, or made known to, third parties. Some gifts are meant to influence the opinion of third parties. For example, a study of Christmas gifts found that expensive jewelry, given by a husband to his wife was intended to elevate the social stature of the husband (Caplow, 1982). The primary objective of a gift is to show appreciation for the recipient, and as such, gifts play an important role in the maintenance of social relationships.

In most cases, the thought behind a gift is more important than its actual value. Gift-giving behavior has been conceptualized with a three stage model encompassing: gestation, prestation, and relationship reformulation (Sherry, 1983). *Gestation* consists of searching, selecting, and purchasing a gift. *Prestation* refers to the act of gift giving. For the recipient, the gift itself potentially conveys a range of symbolic values and it may trigger a broad range of emotions including not only excitement and pleasure, but also anxiety and stress (Larsen & Watson, 2001). Depending on these emotions, there is a *relationship reformulation* whose outcomes range from relationship strengthening and affirmation, to weakening and severing of ties (Ruth, Otnes, & Brunel, 1999).

Online gift giving is expected to tap into the social dynamics of gift exchanges in the offline world, as well as the technology influences imposed by the new context. Integration of prior research on technology adoption, social commerce, and gift exchanges provides a multifaceted set of factors that can potentially influence the adoption of Facebook Gifts service. Research on social factors in e-commerce has not explored in depth the drivers of adoption when e-commerce innovations are deployed within social networking sites. At the same time, prior research on gift exchanges indicates that gift-giving is subject to the general rules of cultural etiquette. Since a social networking site presents a novel context for potential gift exchanges, this stream of research has limited value to identify a set of factors driving the intention to use Facebook Gifts. Furthermore, since social media and social networking sites often evolve, they could implicitly establish their own rules of sharing and etiquette, which may invalidate the predictions of research in offline contexts (Preece, 2004).

The Theory of Reasoned Action specifically calls for the elicitation of salient beliefs as the first step in understanding factors influencing behavioral intentions (Fishbein & Ajzen, 2011). Given the potential clash between the utilitarian conception of technology usefulness prevalent in technology adoption models and the primary social function of gifts in the maintenance of social relationships, instead of adapting existing constructs, it is necessary to elicit the beliefs and identify relevant factors. This is precisely the path we follow in the current study. In the next section, we discuss the methodology.

3. Methodology

In order to identify a set of context-relevant factors to predict the intention to use Facebook Gifts, and to confirm their predictive value, our research consists of three consecutive phases. The first phase builds the foundation by eliciting the salient beliefs related to Facebook Gifts. The second phase analyzes via Exploratory Factor Analysis (EFA) the structure of the salient beliefs with a different sample. The third phase undertakes a Confirmatory Factor Analysis (CFA) of the salient beliefs and conducts a nomological network analysis to investigate its predictive validity.

Each stage of this study used a different sample of Facebook users. Participants from an undergraduate subject pool at a large public university in the northeastern United States were selected for the first two phases. These subjects received academic credit toward an introductory course in information systems. Since students are among the most active users of social networking services (Saul, 2014), recruitment from the college population is appropriate for this study (Compeau, Marcolin, Kelley, & Higgins, 2012). The third stage uses a different and more diverse sample of Facebook users recruited through Amazon's Mechanical Turk (AMT), which is an online labor market where participants complete micro tasks. Recruitment from AMT has become a popular subject pool for research across different disciplines (Buhrmester, Kwang, & Gosling, 2011; Holden, Dennie, & Hicks, 2013) and it has been highlighted as a useful resource for Information Systems research (Steelman, Hammer, & Limayem, 2014). Table 1 summarizes the research workflow.

The data were collected within 9 months of Facebook Gifts service launch. Consistent with the aim to explore adoption intentions, a few participants who had previously either sent or received gifts using Facebook Gifts service were excluded from the samples in all stages of the study.

The research procedures followed in each phase were similar. In the first phase, recruited participants were provided with a link to an online survey hosted on Qualtrics, a commercial survey platform. After collecting basic demographic and Facebook usage information, and filtering out those who have previously used Facebook Gifts, the survey presents a video explaining Facebook Gifts service. The survey then provides an open-ended question: "Do you think Facebook Gifts service is a good or a bad idea? Please explain why." This approach follows the common method of eliciting salient beliefs affecting behavioral

Table 1
Research workflow.

Phases	Methodology	Sample source
Phase I	Salient belief elicitation using Survey 1 that contained open-ended questionnaire	Undergraduate student population
Phase II	Exploratory factor analysis of data from Survey 2 based on the beliefs elicited in Phase I	Undergraduate student population
Phase III	Confirmatory factor analysis and nomological network analysis of data from Survey 3	Pilot: undergraduate student population Main survey: Amazon Mechanical Turk

intentions in TRA research (Fishbein & Ajzen, 2011), and in information systems studies based on TRA (Bulgurcu, Cavusoglu, & Benbasat, 2010; Karahanna et al., 1999).

Procedures for the second phase were consistent (online survey hosted on Qualtrics, collection of demographic data, and video presentation) except for the content of the survey displayed after the video. In this case, the survey asked the participants to express their agreement with the statements generated in the first part of the study. The statements were presented using a 7-point Likert scale anchored in 1–strongly disagree and 7–strongly agree.

Similar procedures were followed for the third phase of the study, though the content of the survey was modified to fulfill the objectives of this phase. In this case, the survey instrument collected measures of Facebook Gifts related beliefs, altruism, a self-report of offline gift-giving and intentions to use Facebook Gifts. We included altruism in our research model because it is a known factor that affects the propensity to give gifts (Burnham, 2003). The scales and references are provided in the Appendix. The survey used in the third stage was initially administered to a new sample of student participants for the purposes of pilot testing, and then administered to a sample of participants from Amazon Mechanical Turk, to ensure better external validity.

4. Results

This section is structured according to the research workflow shown in Table 1. We describe the results of each phase sequentially and highlight how each one builds on the findings of the previous one.

4.1. Phase I

The sample recruited for the first phase (elicitation of salient Facebook Gifts related beliefs) consists of 148 participants (59% male; average age 22.7 ± 5.3). The survey administered in the phase consistent of open ended questions to elicit salient beliefs regarding Facebook Gifts.

According to the recommended procedures for content analysis (Mayring, 2000), two independent researchers reviewed and coded the content of responses to the open-ended question. After the initial coding, the coders met to compare their results and establish a common list of belief statements. With a common framework, the coders subsequently quantified the occurrence of belief statements among the responses. Inter-rater agreement was 96%. Table 2 summarizes the results of the content analysis with most often cited Facebook Gifts related beliefs.

Table 2
Elicited Facebook Gifts related beliefs.

FBGift1	Facebook Gifts will help to build friendships
FBGift2	Facebook Gifts do not require much effort
FBGift3	Facebook Gifts will show that a person cares
FBGift4	Facebook Gifts will make life easier
FBGift5	Facebook Gifts will allow to better connect with others
FBGift6	Facebook Gifts will save time.
FBGift7	Facebook Gifts will help maintain relationships
FBGift8	Facebook Gifts will have more meaning than just writing on the friends' walls
FBGift9	Giving gifts through Facebook will make it easier to give gifts
FBGift10	Facebook Gifts can be used to show affection
FBGift11	Facebook Gifts can represent love
FBGift12	Facebook Gifts will make gifts less personal
FBGift13	Facebook will make gifts more intimate
FBGift14	Facebook Gifts are not real
FBGift15	Facebook Gifts do not seem genuine
FBGift16	Facebook Gifts are not tangible
FBGift17	Facebook Gifts pry into the private lives

4.2. Phase II

The sample recruited for the second phase (identification of the factor structure of Facebook Gifts related beliefs) consists of 168 participants (52% male, average age 23.5 ± 5.1). The survey administered in this phase was designed with the items identified in the previous phase and summarized in Table 2.

Following the guidelines in (Treiblmaier & Filzmoser, 2010), we conducted exploratory factor analysis using principal axis factor analysis and oblique n rotation with SPSS version 22. The choice of an oblique rotation method is based on the potential correlations among the latent constructs reflected in the responses to individual statements. Two criteria were applied to determine the number of factors to retain. First, we examined the scree plot. Second, we performed parallel analysis by comparing individual factor eigenvalues against a set of simulated eigenvalues given the parameters in our study (Hayton, Allen, & Scarpello, 2004). This approach has been shown to avoid potential under and over factor specification in EFA, which commonly occurs with the use of an arbitrary cutoff value, e.g. eigenvalue > 1 (Fabrigar, Wegener, MacCallum, & Strahan, 1999). The results suggested a five factor solution shown in Table 3. FBGift13 and FBGift15 loaded on multiple factors and were excluded from further analysis.

Exploratory factor analysis has been established as the dominant methodology for "identifying the underlying dimensions of a domain of functioning" in psychology (Fabrigar et al., 1999; Ford, MacCallum, & Tait, 1986), marketing (Stewart, 1981) and management research (Hurley, Scandura, Schriesheim, Brannick, et al., 1997). Following the recommendations of Fabrigar et al. (1999), and in light of prior cross-disciplinary research, we examined the content of individual constructs to develop a theoretical foundation of the latent constructs in our model.

The first factor in our model encompasses a set of beliefs concerning the *perceived social utility* of Facebook Gifts in building and maintaining relationships with others.

First factor: perceived social utility

FBGift1	Facebook Gifts will help to build friendships.
FBGift3	Facebook Gifts will show that a person cares.
FBGift5	Facebook Gifts will allow to better connect with others.
FBGift7	Facebook Gifts will help maintain relationships.
FBGift8	Facebook Gifts will have more meaning than just writing on the friends' walls.
FBGift10	Facebook Gifts can be used to show affection.
FBGift11	Facebook Gifts can represent love.

Table 3
Exploratory factor analysis – factor matrix.

	1	2	3	4	5
FBGift1	0.762	−0.155	0.435	0.074	0.141
FBGift3	0.809	0.054	0.392	−0.104	−0.026
FBGift5	0.812	−0.116	0.564	0.011	0.019
FBGift7	0.766	−0.133	0.559	0.076	0.08
FBGift8	0.66	−0.085	0.595	−0.129	−0.049
FBGift10	0.71	0.041	0.371	−0.027	−0.13
FBGift11	0.745	−0.155	0.418	−0.197	0.182
FBGift2	0.1	0.822	0.176	−0.02	0.032
FBGift12	−0.077	0.705	0.022	0.449	0.12
FBGift4	0.489	−0.119	0.728	0.129	−0.004
FBGift6	0.393	0.117	0.799	−0.149	−0.097
FBGift9	0.432	0.127	0.714	−0.006	−0.272
FBGift17	−0.034	0.07	−0.02	0.459	0.132
FBGift14	−0.237	0.156	−0.301	0.146	0.696
FBGift16	0.143	0.063	−0.009	0.319	0.631
FBGift13	0.514	−0.275	0.34	0.01	0.318
FBGift15	−0.13	0.498	−0.249	0.558	0.342

This factor echoes the results of prior research which found that long-distance relationship maintenance is one of the main motives for SNS use (Tosun, 2012). *Perceived social utility* uniquely captures the perceived utility of technology in supporting maintenance and development of social relationships. This factor is conceptually distinct from the perceived usefulness and hedonic motivations, which have been previously examined in Information Systems research as the dominant factors affecting system adoption and use (Venkatesh et al., 2012). It is also important to note that prior research has shown that SNS use can also be motivated by self-expression and entertainment motives (Hunt, Atkin, & Krishnan, 2012). However our elicitation of Facebook Gifts related beliefs did not undercover any salient beliefs reflecting these motives with respect to Facebook Gifts' adoption intention. These observations suggest that while the social motives influencing Facebook Gifts adoption are salient, individual motives such as self-expression are not as prominent.

The second factor emerging from our analysis captures beliefs related to the *perceived symbolic value* of Facebook Gifts. Marketing research emphasizes that perceived value is a dynamic concept which is context dependent (Woodruff & Gardial, 1996). Gift-related research has established that gifts can have economic, symbolic and social value (Sherry, 1983). The symbolic value of a gift is particularly dependent on the effort taken by the gift-giver in procuring a gift. Gift wrapping, for example, is an important element of gift giving in the offline contexts. Beautifully wrapped gifts signal the time and effort exerted by the gift giver in procuring the gift for the recipient (Cheal, 1987). The items loading on this factor reflect the beliefs regarding the process of procuring a Facebook Gift – *Facebook Gifts do not require much effort*, and the expected consequences associated with the perceived value of a Facebook Gift–*Facebook Gifts will make gifts less personal*. Perceived effort expectancy (perceived ease of use) is a core construct in system adoption literature (Davis, 1989; Venkatesh et al., 2012), however in this context we find that perceived effort expectancy is a part of higher order belief which concerns perceived value. In other words, in our sample, Facebook users are less focused on the effort expectancy itself. Instead, they are focused on the perceived symbolic value of a gift as it is reflected by the effort expectancy. It is also important to note that the items actually measure low *perceived symbolic value*. Thus, a higher construct score reflects lower *perceived symbolic value*.

Second factor: low perceived symbolic value

FBGift2	Facebook Gifts do not require much effort.
FBGift12	Facebook Gifts will make gifts less personal.

The third factor in our model captures *perceived convenience* associated with Facebook Gifts.

Third factor: perceived convenience

FBGift4	Facebook Gifts will make life easier.
FBGift6	Facebook Gifts will save time.
FBGift9	Giving gifts through Facebook will make it easier to give gifts.

Perceived convenience has been firmly established as a dominant factor that affects product/service choice in marketing (Berry, Seiders, & Grewal, 2002). Similarly, research in Information Systems has emphasized perceived convenience as an important factor in technology adoption (Jih, 2007; Yoon & Kim, 2007). Time savings are a particularly important dimension of convenience which has been noted in marketing (Berry et al., 2002), management (Benjamin & Wigand, 1995) and transportation research (Hensher, 1997). Time savings have been noted as a factor which can influence system adoption (Bellman, Lohse, & Johnson, 1999). *Perceived convenience* is distinct from *perceived ease of use* which is a key construct in the technology adoption model. While *perceived ease of use* focuses on the time it generally takes to learn how to use technology and the perceived ease of interaction with the system (Venkatesh, Thong, & Xu, 2016), *perceived convenience* highlights the perceived role of the technology on the ease of accomplishing individual goals, e.g. giving a gift to someone. The construct also captures the expected time savings associated with the use of the technology, echoing the discourse on the role of perceived advantages of new technologies relative to available alternatives in technology adoption (Oliveira & Martins, 2011).

The fourth factor which emerged from the exploratory factor analysis captures privacy concerns associated with Facebook Gift adoption. Disclosure of personal information in the process of procurement of a gift exposes Facebook users to potential privacy risks. Privacy concerns have been firmly established as a significant impediment in e-commerce adoption research (Belanger & Crossler, 2011; Pavlou, 2011; Smith, Dinev, & Xu, 2011). The elicitation of this concern in the context of Facebook Gifts highlights the relevance of the privacy concerns in the context of a social commerce service on a SNS. It is important to note however, that while prior research on privacy concerns has emphasized the multidimensional nature of privacy concerns (Hong & Thong, 2013), Facebook users in our study have defined privacy concerns very succinctly. It is likely that in this context, a single item measure best captures the essence of privacy concerns among Facebook users in relation to Facebook Gifts.

Fourth factor: privacy concerns

FBGift17	Facebook Gifts pry into the private lives.

The fifth factor identified through EFA captures two beliefs pertaining to the perceived nature of Facebook Gifts. Participants in our study expressed beliefs that the gifts available through the service were not real and not tangible. While prior research on gifts has noted that they can be tangible or intangible (Larsen & Watson, 2001), emergence of these items suggests that these attributes may either directly or indirectly influence gift-giving intentions in the context of a social network site.

Fifth factor: gift characteristics

FBGift14	Facebook Gifts are not real.
FBGift16	Facebook Gifts are not tangible.

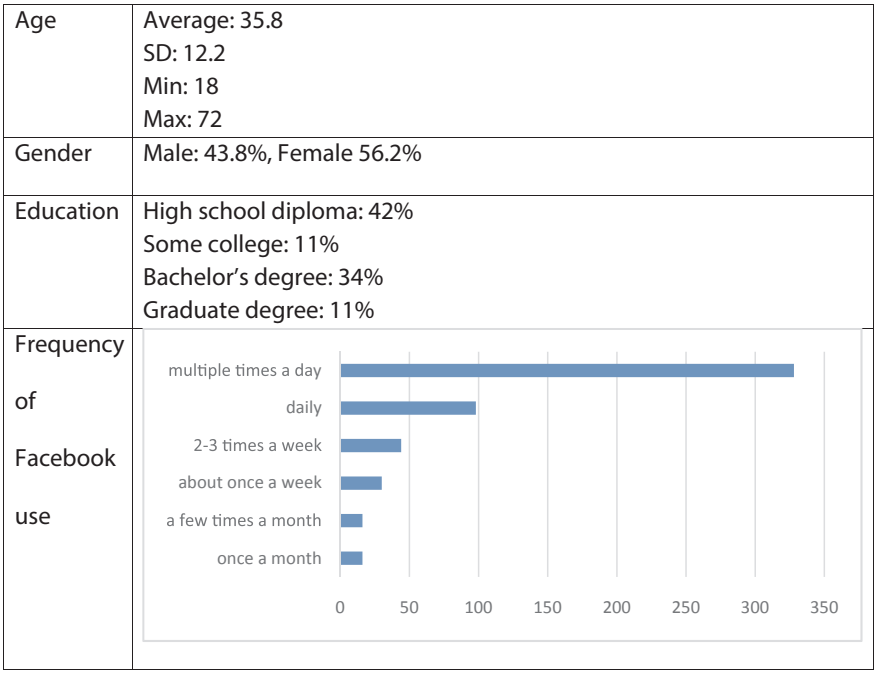
4.3. Phase III

In the third phase of the study we sought to examine the value of the constructs developed in phase 2 in predicting the Facebook Gifts adoption intention. The sample recruited for the third phase (confirmation of the factors and nomological relation with the intention to use Facebook Gifts) is drawn from Amazon's Mechanical Turk. In recruiting participants for this study, we restricted the sample to subjects who resided in the United States and were active Facebook users. We excluded 16 responses because the participants did not follow our instructions. We also excluded 16 responses because participants indicated that they had used Facebook Gifts service to send a gift because the focus of our study is on the users' perceptions and attitudes prior to actual service use. The final sample is 534 (44% male, average age 35.7 ± 12.1). Additional demographic descriptors of our sample are provided in Table 4.

The data collected in this phase was analyzed using PLS methodology with SmartPLS version 2.0 software (Ringle, Wende, & Will, 2005). The use of this methodology is appropriate for exploratory analysis and theory building (Gefen, Rigdon, & Straub, 2011). PLS relies on iterative estimation of item loadings on the latent factors and the correlations between the latent factors. Evaluation of the initially specified measurement model indicated that the beliefs regarding the "real" and "tangible" nature of Facebook Gifts did not load well on a

Table 4
Demographic descriptors of the AMT sample.

Age	Average: 35.8, SD: 12.2, Min: 18, Max: 72
Gender	Male: 43.8%, female 56.2%
Education	High school diploma: 42% Some college: 11% Bachelor's degree: 34% Graduate degree: 11%
Frequency of Facebook use	



single factor. Therefore, we re-specified the measurement model separating these two beliefs into separate factors.

Table 5 summarizes the results of the measurement model. All item loadings on the respective factors were statistically significant indicating good convergent validity (Fornell & Larcker, 1981). The items had loadings above 0.7 on the respective constructs indicating good discriminant validity.

Evaluation of the composite reliability and Cronbach's alpha values for latent factor measures indicated acceptable measurement reliability. The results are provided in Table 6.

To further examine discriminant validity, we also compared the square root of average variance extracted (AVE) for the individual latent factors with the inter-factor correlations. Consistent with the accepted guidelines, the AVE exceeded 0.7 in all cases and the square root of AVE was higher than any correlation with other factors in the model further indicating good discriminant validity. The results are shown in Table 7.

In the next step, we examined the relationships between Facebook Gifts related beliefs and the intention to use Facebook Gifts by evaluating the structural model. Statistical significance of path coefficients in the structural model was evaluated using a bootstrapping procedure.

We found that *perceived social utility* was strongly correlated with the intention to use the service ($\beta = 0.36$, $p < 0.001$). Low *perceived symbolic value* had a negative relationship with the intention to use the service ($\beta = -0.21$, $p < 0.01$). *Perceived convenience* associated with Facebook Gifts was positively associated with the intention to use the service ($\beta = 0.19$, $p < 0.01$). The concern that Facebook Gifts would pry into private lives had a negative relationship with the intention to use the service ($\beta = -0.13$, $p < 0.01$).

The perceptions of Facebook Gifts not being real or tangible did not show a statistically significant association with the intention to use the service. Age had a weak negative relationship with the intention to use Facebook Gifts service ($\beta = -0.08$ $p < 0.05$). Gender and Facebook usage frequency were not significantly correlated with Facebook Gifts usage intention, but trait altruism was ($\beta = 0.18, p < 0.01$). There was also a positive correlation between self-reported offline gift-giving and the intention to use Facebook Gift service ($\beta = 0.14$, $p < 0.01$). Overall, the factors included in the model explain 41% of variance in the intention to use Facebook Gifts service.

Focusing on the demographic, psychographic and the behavioral control variables in our research model, we find that age is negatively correlated with the intention to use the Facebook Gifts service. This result is consistent with other studies that have documented a negative correlation between user age and general utility derived from social networking services, e.g. Facebook (Brandtzaeg, 2012; Mcandrew & Jeong, 2012). We also find a positive correlation between altruism and the intention of using the service, which is consistent with prior research demonstrating the positive relationship between altruism and gift giving in traditional offline contexts (Burnham, 2003).

The results are summarized in Fig. 1.

5. Discussion

With the goal to gain insight into the factors that influence social commerce adoption within a social networking platform, we chose Facebook Gifts. This new service provided the context to explore the content and the factorial structure of Facebook user beliefs influencing the adoption of the gift service. Our research in the elicitation, exploratory, and confirmatory factor analysis of user beliefs indicates that these beliefs may be modeled with six latent factors but only four are significant predictors of adoption intention: *perceived social utility*, *perceived symbolic value*, *perceived convenience*, and *privacy concerns*.

Table 5
Measurement model.

	1	2	3	4	5	6	7	8	9
Altruism_1	0.73	−0.10	−0.01	−0.03	0.06	0.00	0.01	0.06	0.06
Altruism_2	0.81	0.00	−0.13	−0.05	0.15	−0.01	0.09	0.15	0.09
Altruism_3	0.90	0.02	−0.14	0.01	0.07	−0.05	0.01	0.21	0.28
FBGift1	0.05	0.84	−0.34	0.57	−0.32	−0.22	−0.14	0.50	0.09
FBGift3	−0.07	0.82	−0.29	0.60	−0.44	−0.33	−0.16	0.44	0.11
FBGift5	0.07	0.84	−0.33	0.58	−0.32	−0.31	−0.12	0.51	0.00
FBGift7	0.03	0.85	−0.37	0.57	−0.29	−0.19	−0.12	0.48	0.04
FBGift8	−0.09	0.69	−0.23	0.50	−0.26	−0.26	−0.10	0.31	−0.03
FBGift10	−0.06	0.74	−0.17	0.56	−0.41	−0.23	−0.10	0.34	0.06
FBGift11	−0.03	0.82	−0.27	0.63	−0.43	−0.28	−0.18	0.45	0.10
FBGift2	−0.20	0.17	0.74	0.29	−0.13	0.08	−0.09	−0.08	0.06
FBGift12	−0.11	−0.42	0.98	−0.22	0.32	0.35	0.31	−0.37	0.04
FBGift4	−0.01	0.61	−0.15	0.85	−0.19	−0.13	−0.06	0.39	0.04
FBGift6	−0.08	0.56	−0.06	0.85	−0.30	−0.24	−0.13	0.33	0.06
FBGift9	0.02	0.67	−0.16	0.89	−0.38	−0.29	−0.08	0.45	0.09
FBGift14	0.12	−0.44	0.28	−0.34	1.00	0.55	0.28	−0.20	0.04
FBGift16	−0.04	−0.32	0.35	−0.26	0.55	1.00	0.17	−0.20	0.06
FBGift17	0.05	−0.17	0.27	−0.10	0.28	0.17	1.00	−0.12	−0.05
FBGift_Int_1	0.11	0.55	−0.32	0.48	−0.22	−0.18	−0.17	0.85	0.20
FBGift_Int_2	0.18	0.53	−0.35	0.48	−0.22	−0.21	−0.12	0.90	0.15
FBGift_Int_3	0.24	0.44	−0.27	0.37	−0.12	−0.16	−0.07	0.86	0.21
FBGift_Int_4	0.21	0.49	−0.33	0.39	-0.15	−0.19	−0.08	0.85	0.16
FBGift_Int_5	0.14	0.40	−0.30	0.31	−0.14	−0.15	−0.07	0.85	0.18
FBGift_Int_6	0.18	0.37	−0.28	0.28	−0.15	−0.14	−0.08	0.83	0.16
GiftGiv_1	0.21	0.08	0.08	0.03	0.08	0.15	0.00	0.13	0.78
GiftGiv_2	0.21	0.01	0.06	0.00	0.08	0.03	0.03	0.17	0.77
GiftGiv_3	0.19	0.02	0.02	0.06	−0.01	0.00	−0.07	0.20	0.76
GiftGiv_4	0.00	0.15	0.01	0.19	−0.04	0.03	−0.14	0.10	0.70

Key: 1 – altruism, 2 – perceived social utility, 3 – low perceived symbolic value, 4 – perceived convenience, 5 – perception: FB Gifts are not real, 6 – perception: FB Gifts are not tangible, 7 – privacy concerns, 8 – intention to use FB Gifts, 9 – offline gift-giving.

Table 6
Descriptive Statistics of Factors.

	Mean	St. Dev.	Composite reliability	Cronbach's alpha
1. Altruism	2.43	1.23	0.83	0.72
2. Perceived social utility	4.65	1.09	0.93	0.91
3. Low perceived symbolic value	4.94	1.09	0.75	0.75
4. Perceived convenience	4.91	1.12	0.90	0.83
5. Perception: FB Gifts are not real	2.67	1.46		
6. Perception: FB Gifts are not tangible	3.75	1.59		
7. Privacy concerns	3.24	1.54		
8. Intention to use FB Gifts	2.85	1.93	0.94	0.93
9. Offline gift-giving	2.95	0.94	0.84	0.75

Table 7
Factor correlations and square root of AVE (in the diagonal).

	1	2	3	4	5	6	7	8	9
1	0.79								
2	−0.01	0.80							
3	−0.14	−0.36	0.73						
4	−0.02	0.71	−0.15	0.86					
5	0.12	−0.44	0.28	−0.34	NA				
6	−0.04	−0.32	0.35	−0.26	0.55	NA			
7	0.05	−0.17	0.27	−0.10	0.28	0.17	NA		
8	0.21	0.55	−0.36	0.46	−0.20	−0.20	−0.12	0.86	
9	0.22	0.07	0.05	0.08	0.04	0.06	−0.05	0.21	0.75

Key: 1 – altruism, 2 – perceived social utility, 3 – low perceived symbolic value, 4 – perceived convenience, 5 – perception: FB Gifts are not real, 6 – perception: FB Gifts are not tangible, 7 – privacy concerns, 8 – intention to use FB Gifts, 9 – offline gift-giving.

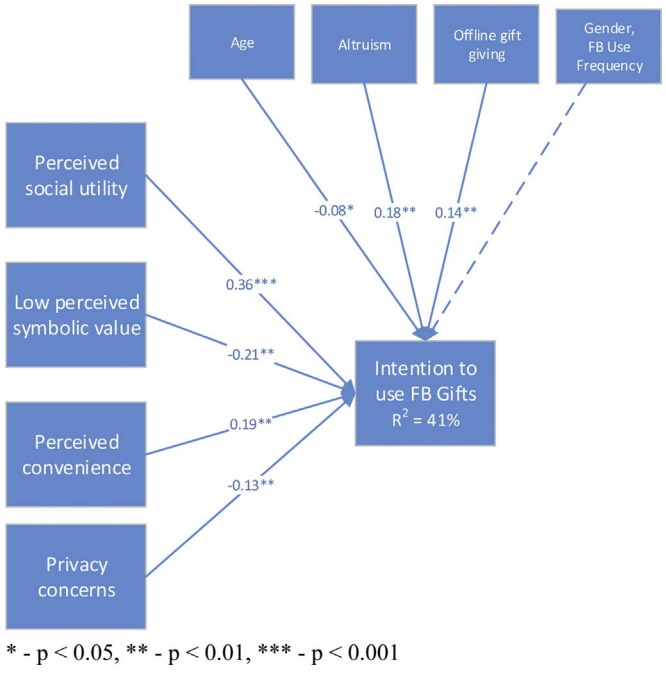


Fig. 1. Structural model analysis.
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Perceived social utility encompasses user beliefs about the potential usefulness of the service in building and maintaining relationships on Facebook. This factor is consistent with the predominant relationship maintenance motive underlying SNS use in general (Tosun, 2012). It shows a strong correlation with the intention to use the service suggesting that the perceived utility of the service in helping to build and maintain relationships within the social networking site is an important predictor of service adoption. This perceived utility is fundamentally

social. As such, it offers a unique conception of technology usefulness in information systems research. While prior research emphasized the practical utility of IT systems in the workplace (Davis, 1989; Davis et al., 1989), and hedonic utility of gaming environments (Lin & Bhattacherjee, 2010), we uncover a *social utility* factor which is likely to play an important role in social commerce applications in different settings.

Low *perceived symbolic value*, the second factor in our model of beliefs related to Facebook Gifts service, encompasses two aspects: effort and personalization. The first aspect reflects the perceived amount of work required to use the service. Perceived effort expectancy is a core component of technology adoption models which predict that lower expected effort (higher ease of use) would be positively related to adoption intention (Davis, 1989; Venkatesh et al., 2012). Yet, we find the opposite relationship in our model. The second belief associated with this factor is that Facebook Gifts are perceived as less personal. Effort to procure a gift characterizes the process, while gift personalization characterizes the output. Taken together, they are indicators of the perceived symbolic value of a gift (Sherry, 1983). The symbolic value of a gift is dependent on the effort taken by the gift-giver in finding and buying the gift, as well as the degree of thoughtfulness that the gift conveys. Prior studies on gift exchanges suggest that lower perceived effort in procuring the gift would diminish the perceived value of a gift (Belk, 1996). Similarly, the procurement of generic gifts with low personalization diminishes the perceived value of the gift.

Perceived convenience, the third emergent factor in our model, reflects the perceived capacity of technology to offer time savings (i.e. convenience). *Perceived convenience* is distinct from *perceived ease of use* which focuses on the time it generally takes to learn how to use technology and the perceived ease of interaction with the system (Venkatesh, Thong, & Xu, 2016). *Perceived convenience* highlights the perceived expected impact of the technology on the ease of accomplishing individual goals, e.g. giving a gift to someone. Time is widely acknowledged in the marketing literature as an important factor that influences perceived service quality, satisfaction and continued patronage (Kumar, Kalwani, & Dada, 1997; Pruyn & Smidts, 1998). Prior research in Information Systems recognized that delays associated with web page loading can have a detrimental effect on user satisfaction (Nah, 2004), and how cognitive distractions can alleviate these negative effects of waits (Hong, Hess, & Hardin, 2013). Time savings and convenience have been the drivers behind the growing popularity of e-commerce in practice (Berry et al., 2002; Messinger & Narasimhan, 1997). Our findings highlight the importance of convenience via time savings as a distinct factor that can impact the adoption of this type of social commerce innovation.

Privacy concerns are the fourth factor showing a statistically significant relationship with the intention to use Facebook Gifts services. It captures the apprehension that the exchange of gifts on Facebook would expose service users to privacy risks. This observation is consistent with prior research on privacy emphasizing that privacy concerns act as an impediment to willingness to engage in e-commerce transactions (Külcü & Henkö, 2014; Van Slyke, Shim, Johnson, & Jiang, 2006). However, it is important to note that finding a negative relationship between privacy concerns and the intention to use Facebook Gifts service may not necessarily predict the actual user behavior. Prior research has noted that higher privacy concerns often co-occur with greater information disclosure (Barnes, 2006). This is typically known as the “privacy paradox” and social networking sites represent a prime example of this phenomenon.

The other two factors in our model are related to the perceptions of gifts available through Facebook Gifts as *not real* and *not tangible*. Although we did not find statistically significant relationships between these beliefs and the intention to use the service, the very fact that elicitation of beliefs surfaced these potential concerns in relation to the service further echoes the importance of social norms in influencing acceptable technology uses. The perceived non-real, non-tangible nature of Facebook Gifts may affect perceived value of the gifts available through the service independent of the actual objective nature of the gifts. It is worth noting that at the time of our study, Facebook Gifts offered both physical and digital gift options (O’Dell, 2012).

To sum up, the empirical results of our model indicate that both relationship building and convenience are positive influences in the adoption of the gift-giving service, while low effort and low personalization undermine its potential adoption. Paradoxically, in the context of online gift-giving, while the convenience of the technology has a positive influence on service adoption, the low thoughtfulness associated with the very notion of giving gifts online has a negative influence.

5.1. Theoretical and Practical Implications

Our study has a number of implications for theory and practice. First, the elicitation of salient beliefs related to social commerce adoption in the context of a social networking site uncovered a key latent factor. This factor reflects the *perceived social utility* (maintaining and building relationships) as a key predictor of technology adoption intention. In the context of technology-mediated social environments, this factor complements prior research on technology adoption that emphasized productivity (Davis, 1989; Davis et al., 1989) in work environments, and enjoyment (Heijden, 2004) in hedonic environments as the main motives for technology adoption. In the evolution of social commerce, perceived social utility associated with technology adoption is likely to play a key role.

Our study also points to the importance of social norms in social technology adoption. In the context of technology-mediated gift exchanges, perceptions of lower effort associated with the use of technology can be counterproductive to creating social value and have a negative effect on the technology adoption intention. This is in contrast to the findings from the workplace contexts, where lower effort is generally a positive factor influencing technology adoption (Schepers & Wetzels, 2007).

The empirical results surface important considerations which arise at the intersection of social norms requiring the gift-giver to invest effort to find an appropriate gift, and the capability of the technology to decrease the required effort to perform a task. In the context of Facebook Gifts service, the social norms appear dominant in that the lower perceived effort is negatively correlated with the intention to use the service. The perceived lower effort associated with Facebook Gifts likely undermines the perceived value of the gifts that can be sent through the service.

Our exploratory study also offers some insights for practice. First, successful introduction of new technologies into a social context requires an understanding of the existing social practices. Our results revealed a potential conflict between the expectations of an effort associated with procurement of a gift and the common perception of technology as reducing the required effort. The net result is that a technology-mediated gift service in the context of a social networking site runs counter to the social norms associated with traditional gift exchanges. Technology makes it easier to give gifts, but undermines the perceived symbolic value of a gift. Further, our results also show that privacy concerns may be an impediment to social commerce adoption in the context of social networking sites. The combination of these factors may describe the challenges faced by Facebook Gifts service (Constine, 2013), and explain, in part, why the service was discontinued.

Facebook subsequently launched Facebook Marketplace as the latest foray into e-commerce services (Facebook, 2016). This new feature facilitates the buying and selling of goods through Facebook. While it is clear that Facebook is continuing to search for new revenue streams given the slowdown in the advertising revenue (Rishika Sadam, 2016), it appears that the Marketplace is largely ignoring the dominant social norms that exist among Facebook users. As an extensive body of

research has shown, Facebook users predominantly use the site for staying in touch with their family and friends and improving their psychological well-being (Chiu, Cheng, Huang, & Chen, 2013; Jung, Pawlowski, & Kim, 2017; Raacke & Bonds-Raacke, 2008). Therefore, the company's attempt to significantly expand the social circle to include everyone who has items for sale in a neighborhood may similarly face challenges due to the inconsistency with established social norms.

5.2. Limitations

The limitations of this study are primarily due to the nature of the subjects and the selection of the context for this research. While the relevant factors were elicited from a sample of frequent Facebook users (students), giving gifts might not be the primary form of relationship building and reinforcement among this group. Nevertheless, the factors identified from this group were confirmed in a larger and more diverse sample of Facebook users from Amazon Mechanical Turk. On the other hand, the selection of Facebook Gift as the context places some boundaries on the reported results, as they relate to gift-giving.

We should also note that we limited the participants in our study to the United States because Facebook Gifts service was only available in the United States. Gift-giving norms are inherently embedded in established cultural practices (Larsen & Watson, 2001). For example, gift giving in Asian cultures frequently emphasizes the importance of the kin over the individual (Joy, 2001), whereas the United States is a much more individualist society. The insights on gift-giving norms emergent from our study should be interpreted considering the United States as the cultural context.

Further, the elicitation of salient user beliefs surfaced privacy concerns as a construct represented by a single item. Privacy concerns are generally viewed as a complex multi-factorial construct comprised of concerns about information collection, secondary usage, errors, and improper access to information (Hong, Thong, & James, 2013). However, we believe that in the context of our study, consistent with prior recommendations on construct measurement (Loo, 2002; Loo & Kelts, 1998), a single item measure reflecting the overall user concerns about the service impact on privacy is a better measure of the underlying salient construct.

Another potential limitation of the current study stems from the fact that Facebook Gifts service has failed and it was shut down. One may challenge the significance of a study of a failed system. This point has been repeatedly discussed in the management literature (Ariño & Torre, 1998; Edmondson, 2011) and the authors highlight the importance of learning from failure as the most valuable outcome of analyzing failures (Edmondson, 2008). Technological and organizational innovation inherently carries risks and new e-commerce services often fail in the market. Learning from failures is critical to avoiding failure in the future. This study sheds light on the potential reason for service failure which can prove beneficial for practitioners of social commerce going forward.

These limitations notwithstanding, the elicitation of factors – instead of the application of modified scales from the Technology Acceptance Model such as perceived usefulness and perceived ease of use – yield important findings. Our results indicate that in the intersection of social commerce and technology innovation, both usefulness and ease of use have social connotations. These insights are applicable in other contexts beyond Facebook Gifts.

6. Conclusion

Social commerce represents a growing trend in practice, and also poses many open questions for research. In this study, we explored the factorial nature of salient Facebook user beliefs related to Facebook Gifts service. Our findings identify a novel latent factor, which we call *perceived social utility* that captures usefulness of the technology to fulfill the social function of gift-giving. This factor is a key predictor of the intention to use Facebook Gifts service. Paradoxically, the low perceived symbolic value of Facebook Gifts has a negative effect on the intention to adopt Facebook Gifts, likely reflecting social norms which require the gift-giver to demonstrate effort in procuring the gift. This finding runs counter to the predictions of established technology acceptance theories and reveals an important interaction between social norms and effort expectancy in social commerce. We also find that privacy concerns are a potential impediment to the adoption of Facebook Gifts. The net result is that a technology-mediated gift service in the context of a social networking site runs counter to the social norms associated with traditional gift exchanges. Our results provide the foundation for further research on social commerce, and highlight the importance of social factors in the adoption of social commerce systems in practice.

Appendix A. Survey scales

Altruism (Rushton, 1981)

Altruism1	I have helped push a stranger's car out of the snow.
Altruism2	I have allowed someone to go ahead of me in a line (in the supermarket).
Altruism3	I have given a stranger a lift in my car.
	1 – never, 5 – very often

Self-reported offline gift-giving (developed for this study).

	How often do you give gifts on the following occasions?
OfflineGift1	Family members' birthdays
OfflineGift2	Friends' birthdays
OfflineGift3	Valentine's day
OfflineGift4	Christmas
	4 pt Likert, 1 – never, 4 – always

Intention to use Facebook Gifts (developed for this study).

	How likely are you to use Facebook Gifts for the following occasions?
FBGiftInt1	Friends' birthdays
FBGiftInt2	Family members' birthdays
FBGiftInt3	Valentine's day
FBGiftInt4	Christmas
FBGiftInt5	Father's day
FBGiftInt6	Mother's day
	1 – very unlikely, 7 – very likely

References

Ariño, A., & Torre, J. de la. (1998). Learning from failure: Towards an evolutionary model of collaborative ventures. *Organization Science*, *9*(3), 306–325.

Barnes, S. B. (2006). A privacy paradox: Social networking in the United States. *First Monday*, *11*(9).

Belanger, F., & Crossler, R. E. (2011). Privacy in the digital age: A review of information privacy research in information systems. *MIS Quarterly*, *35*(4), 1017–1041.

Belk, R. W. (1996). The perfect gift. *Gift Giving: A Research Anthology*, 59–84.

Bellman, S., Lohse, G. L., & Johnson, E. J. (1999). Predictors of online buying behavior. *Communications of the ACM*.

Benjamin, R., & Wigand, R. (1995, Winter). Electronic markets and virtual value chains on the information superhighway. *Sloan Management Review*.

Berry, L. L., Seiders, K., & Grewal, D. (2002). Understanding service convenience. *Journal of Marketing*, *66*(3), 1–17.

Brabham, D. C. (2008). Moving the crowd at iStockphoto: The composition of the crowd and motivations for participation in a crowdsourcing application. *First Monday*, *13*(6).

Brandtzaeg, P. B. (2012). Social networking sites: Their users and social implications—A longitudinal study. *Journal of Computer-Mediated Communication*, *17*(4), 467–488.

Buhrmester, M., Kwang, T., & Gosling, S. D. (2011). Amazon's mechanical turk: A new source of inexpensive, yet high-quality, data? *Perspectives on Psychological Science*, *6*(1), 3–5.

Bulgurcu, B., Cavusoglu, H., & Benbasat, I. (2010). Information security policy compliance: An empirical study of rationality-based beliefs and information security awareness. *MIS Quarterly*, *34*(3), 523–548.

Burnham, T. C. (2003). Engineering altruism: A theoretical and experimental investigation of anonymity and gift giving. *Journal of Economic Behavior & Organization*, *50*(1), 133–144.

Caplow, T. (1982). Christmas gifts and kin networks. *American Sociological Review*, 383–392.

Cheal, D. (1987). Showing them you love them: Gift giving and the dialectic of intimacy. *The Sociological Review*, *35*(1) Retrieved from http://onlinelibrary.wiley.com/doi/10.1111/j.1467-954X. 1987.tb00007.x/abstract.

Chen, L., Marsden, J. R., & Zhang, Z. (2012). Theory and analysis of company-sponsored value co-creation. *Journal of Management Information Systems*, *29*(2), 141–172.

Cheung, C. M. K., & Thadani, D. R. (2012). The impact of electronic word-of-mouth communication: A literature analysis and integrative model. *Decision Support Systems*, *54*(1), 461–470.

Chevalier, J. A., & Mayzlin, D. (2006). The effect of word of mouth on sales: Online book reviews. *Journal of Marketing Research*, *43*(3), 345–354.

Chiu, C. M., Cheng, H. L., Huang, H. Y., & Chen, C. F. (2013). Exploring individuals' subjective well-being and loyalty towards social network sites from the perspective of network externalities: The Facebook case. *International Journal of Information Management*, *33*(3), 539–552. http://doi.org/10.1016/j.ijinfomgt.2013.01.007.

Compeau, D., Marcolin, B., Kelley, H., & Higgins, C. (2012). Research commentary—Generalizability of information systems research using student subjects—A reflection on our practices and recommendations for future research. *Information Systems Research*, *23*(4), 1093–1109.

Constine, J. (2013). *Facebook ditches physical gifts to double-down on digital codes and its own brick- & -mortar gift card*. Retrieved from http://techcrunch.com/2013/08/23/facebook-digital-gifts/.

Davis, F. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, *13*(3), 319–340.

Davis, F., Bagozzi, R., & Warshaw, P. (1989). User acceptance of computer technology: A comparison of two theoretical models. *Management Science*, *35*(8), 982–1003.

Edmondson, A. C. (2008). The competitive imperative of learning. *Harvard Business Review*, *86*(7/8), 60.

Edmondson, A. C. (2011). Strategies of learning from failure. *Harvard Business Review*, 89.

Fabrigar, L. R., Wegener, D. T., MacCallum, R. C., & Strahan, E. J. (1999). Evaluating the use of exploratory factor analysis in psychological research. *Psychological Methods*, *4*(3), 272.

Facebook. (2016). Introducing marketplace: Buy and sell with your local community. Retrieved from http://newsroom.fb.com/news/2016/10/introducing-marketplace-buy-and-sell-with-your-local-community/.

Facebook Company Information. (2016). Retrieved from http://newsroom.fb.com/company-info/.

Fishbein, M. (1979). A theory of reasoned action: Some applications and implications. *Nebraska Symposium on Motivation*, *27*, 65–116.

Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention and behavior: An introduction to theory and research*. Reading, MA: Addison-Wesley.

Fishbein, M., & Ajzen, I. (2011). *Predicting and changing behavior: The reasoned action approach*. Taylor & Francis.

Ford, J. K., MacCallum, R. C., & Tait, Mm. (1986). Application of exploratory factor analysis in applied psychology critical review. *Personnel Psychology*.

Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research (JMR)*, *18*(1).

Gefen, D., Rigdon, E. E., & Straub, D. (2011). An update and extension to SEM guidelines for administrative and social science research. *MIS Quarterly*, *35*(2), iii–xiv.

Gefen, D., & Straub, D. W. (2004). Consumer trust in B2C e-commerce and the importance of social presence: Experiments in e-products and e-services. *Omega*, *32*(6), 407–424.

Hayton, J. C., Allen, D. G., & Scarpello, V. (2004). Factor retention decisions in exploratory factor analysis: A tutorial on parallel analysis. *Organizational Research Methods*, *7*(2), 191–205.

Heijden, H. Van der. (2004). User acceptance of hedonic information systems. *MIS Quarterly*, *28*(4), 695–704.

Heller, L. (2013). Holiday 2013: Five trends to watch. Forbes. Retrieved from http://www.forbes.com/sites/lauraheller/2013/10/27/holiday-2013-five-trends-to-watch/.

Hensher, D. A. (1997). *Behavioral value of travel time savings in personal and commercial automobile travel. The full costs and benefits of transportation*, . Springer245–278.

Hildebrand, C., & Häubl, G. (2013). When social media can be bad for you: Community feedback stifles consumer creativity and reduces satisfaction with self-designed products. *Information Systems Research*, *24*(1), 14–29.

Holden, C. J., Dennie, T., & Hicks, A. D. (2013). Assessing the reliability of the M5-120 on Amazon's mechanical Turk. *Computers in Human Behavior*, *29*(4), 1749–1754.

Hong, W., Hess, T., & Hardin, A. (2013a). When filling the wait makes it feel longer: a paradigm shift perspective for managing online delay. *Management Information Systems Quarterly*, *37*(2), 383–406.

Hong, W., & Thong, J. (2013). Internet privacy concerns: An integrated conceptualization and four empirical studies. *MIS Quarterly*, *37*(1), 1–3.

Hong, W., Thong, L., & James, Y. (2013b). Internet privacy concerns: An integrated conceptualization and four empirical studies. *MIS Quarterly*, *37*(1), 275–298.

Hunt, D., Atkin, D., & Krishnan, A. (2012). The influence of computer-mediated communication apprehension on motives for Facebook use. *Journal of Broadcasting & Electronic Media*, *56*(2), 187–202.

Hurley, A. E., Scandura, T.a, Schriesheim, C.a, Brannick, M. T., et al. (1997, February). Exploratory and confirmatory factor analysis: Guidelines, issues, and alternatives. *Journal of Organizational Behavior*, 667–683.

IBISWorld. (2014). Gift shops & card stores in the US: Market research report. Retrieved from http://www.ibisworld.com/industry/default.aspx?indid = 1099.

Jih, W.-J. (2007). Effects of consumer-perceived convenience on shopping intention in mobile commerce: an empirical study. *International Journal of E-Business Research (IJEBR)*, *3*(4), 33–48.

Joy, A. (2001). Gift giving in Hong Kong and the continuum of social ties. *Journal of Consumer Research*, *28*(2), 239–256. http://doi.org/10.1086/322900.

Jung, Y., Pawlowski, S. D., & Kim, H.-W. (2017). Exploring associations between young adults' facebook use and psychological well-being: A goal hierarchy approach. *International Journal of Information Management*, *37*(1), 1391–1404. http://doi.org/10.1016/j.ijinfomgt.2016.10.005.

Kane, G., Alavi, M., Labianca, G., & Borgatti, S. (2014). What's different about social media networks?. A framework and research agenda. *MIS Quarterly*, *38*(1), 275–304.

Karahanna, E., Straub, D., & Chervany, N. (1999). Information technology adoption across time: A cross-sectional comparison of pre-adoption and post-adoption beliefs. *MIS Quarterly*, *23*(2), 183–213.

Khansa, L., Ma, X., Liginlal, D., & Kim, S. S. (2015). Understanding members' active participation in online question-and-answer communities: A theory and empirical analysis. *Journal of Management Information Systems*, *32*(2), 162–203.

Kim, S. S., Malhotra, N. K., & Narasimhan, S. (2005). Research note—two competing perspectives on automatic use: A theoretical and empirical comparison. *Information Systems Research*, *16*(4), 418–432.
King, W. R., & He, J. (2006). A meta-analysis of the technology acceptance model. *Information & Management*, *43*(6), 740–755.
Külcü, Ö., & Henkŏ, T. (2014). Privacy in social networks: An analysis of Facebook. *International Journal of Information Management*, *34*, 761–769. http://doi.org/10.1016/j.ijinfomgt.2014.07.006.
Kumar, P., Kalwani, M. U., & Dada, M. (1997). The impact of waiting time guarantees on customers' waiting experiences. *Marketing Science*, *16*(4), 295–314.
Larsen, D., & Watson, J. (2001). A guide map to the terrain of gift value. *Psychology & Marketing*, *18*(2001, August), 889–906.
Leimeister, J. M., Huber, M., Bretschneider, U., & Krcmar, H. (2009). Leveraging crowdsourcing: Activation-supporting components for IT-based ideas competition. *Journal of Management Information Systems*, *26*(1), 197–224.
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.
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.
Lin, C.-P., & Bhattacherjee, A. (2010). Extending technology usage models to interactive hedonic technologies: A theoretical model and empirical test. *Information Systems Journal*, *20*(2), 163–181.
Loo, R. (2002). A caveat on using single-item versus multiple-item scales. *Journal of Managerial Psychology*, *17*(1), 68–75.
Loo, R., & Kelts, P. (1998). A caveat on using single-item measures. *Employee Assistance Quarterly*, *14*(2), 75–80.
Ma, X., Kim, S. H., & Kim, S. S. (2014). Online gambling behavior: The impacts of cumulative outcomes, recent outcomes, and prior use. *Information Systems Research*, *25*(3), 511–527.
Mayring, P. (2000). *Qualitative content analysis* (Vol. 1)*Forum: Qualitative social research*.
Mcandrew, F. T., & Jeong, H. S. (2012). Who does what on Facebook? Age, sex, and relationship status as predictors of Facebook use. *Computers in Human Behavior*, *28*(6), 2359–2365.
Messinger, P. R., & Narasimhan, C. (1997). A model of retail formats based on consumers' economizing on shopping time. *Marketing Science*, *16*(1), 1–23.
Nah, F. F.-H. (2004). A study on tolerable waiting time: How long are web users willing to wait? *Behaviour & Information Technology*, *23*(3), 153–163.
O'Dell, J. (2012). *Facebook launches Gifts: Real products you can send to your friends, no addy needed*.
Oh, O., Agrawal, M., & Rao, H. (2013). Community intelligence and social media services: A rumor theoretic analysis of tweets during social crises. *MIS Quarterly*, *37*(2), 407–426.
Oliveira, T., & Martins, M. F. (2011). Literature review of information technology adoption models at firm level. *The Electronic Journal Information Systems Evaluation*, *14*(1), 110–121.
Pavlou, P. (2011). State of the information privacy literature: Where are we now and where should we go? *MIS Quarterly*, *35*(4), 977–988.
Polites, G., & Karahanna, E. (2012). Shackled to the status quo: The inhibiting effects of incumbent system habit, switching costs, and inertia on new system acceptance. *MIS Quarterly*, *36*(1), 21–42.
Preece, J. (2004). Etiquette online: From nice to necessary. *Communications of the ACM*, *47*(4), 56–61.
Pruyn, A., & Smidts, A. (1998). Effects of waiting on the satisfaction with the service: Beyond objective time measures. *International Journal of Research in Marketing*, *15*(4), 321–334.
Qiu, L., Rui, H., & Whinston, A. B. (2014). Effects of social networks on prediction markets: Examination in a controlled experiment. *Journal of Management Information Systems*, *30*(4), 235–268.
Raacke, J., & Bonds-Raacke, J. (2008). MySpace and Facebook: Applying the uses and gratifications theory to exploring friend-networking sites. *Cyberpsychology & Behavior: The Impact of the Internet, Multimedia and Virtual Reality on Behavior and Society*, *11*(2), 169–174.
Ringle, C. M., Wende, S., & Will, A. (2005). SmartPLS, Version 2.0 Hamburg: Universitat Hamburg.
Rishika Sadam, D. V. (2016). *Facebook warns growth will slow shares dip*. Reuters.
Rushton, J. P. (1981, July). The altruistic personality and the self-report altruism scale. *Personality and Individual Differences*, 293–302.
Ruth, J., Otnes, C., & Brunel, F. (1999). Gift receipt and the reformulation of interpersonal relationships. *Journal of Consumer Research*, *25*(4), 385–402.
Saul, D. (2014). *The 2014 Facebook demographic report*. Retrieved from http://istrategylabs.com/2014/01/3-million-teens-leave-facebook-in-3-years-the-2014-facebook-demographic-report/.
Schepers, J., & Wetzels, M. (2007). A meta-analysis of the technology acceptance model: Investigating subjective norm and moderation effects. *Information & Management*, *44*(1), 90–103.
Shanmugam, M., Sun, S., Amidi, A., Khani, F., & Khani, F. (2016). The applications of social commerce constructs. *International Journal of Information Management*, *36*(3), 425–432 http://doi.org/10.1016/j.ijinfomgt.2016.01.007.
Sheppard, B. H., Hartwick, J., & Warshaw, P. R. (1988). The theory of reasoned action: A meta-analysis of past research with recommendations for modifications and future research. *Journal of Consumer Research*, 325–343.
Sherry, J. F. J. (1983). Gift giving in anthropological perspective. *Journal of Consumer Research*, *10*(2), 157–168.
Smith, H., Dinev, T., & Xu, H. (2011). Information privacy research: An interdisciplinary review. *MIS Quarterly*, *35*(4), 989–1015.
Srite, M., & Karahanna, E. (2006). The role of espoused national cultural values in technology acceptance. *MIS Quarterly*, *30*(3), 679–704.
Steelman, Z., Hammer, B., & Limayem, M. (2014). Data collection in the digital age: Innovating alternatives to student samples. *MIS Quarterly*, *38*(2), 355–378.
Stephen, A., & Toubia, O. (2010, April). Deriving value from social commerce networks. *Journal of Marketing Research*, 215–228 XLVII.
Stewart, D. W. (1981). The application and misapplication of factor analysis in marketing research. *Journal of Marketing Research*, 51–62 XVIII.
Stewart, J. B. (2016). Facebook has 50 minutes of your time each day. It wants more. *The New York Times*.
Titah, R., & Barki, H. (2009). Nonlinearities between attitude and subjective norms in information technology acceptance: A negative synergy? *MIS Quarterly*, *33*(4), 827–844.
Tosun, L. P. (2012). *Computers in human behavior motives for Facebook use and expressing "true self" on the Internet*, *28*, 1510–1517 http://doi.org/10.1016/j.chb.2012.03.018.
Treiblmaier, H., & Filzmoser, P. (2010). Exploratory factor analysis revisited: How robust methods support the detection of hidden multivariate data structures in IS research. *Information & Management*, *47*(4), 197–207.
Van Slyke, C., Shim, J. T., Johnson, R., & Jiang, J. (2006). Concern for information privacy and online consumer purchasing. *Journal of the Association for Information Systems*, *7*(6), 415–444.
Venkatesh, V., & Davis, F. D. (2000). A theoretical extension of the technology acceptance model: Four longitudinal field studies. *Management Science*, *46*(2), 186–204 Retrieved from http://mansci.journal.informs.org/cgi/doi/10.1287/mnsc.46.2.186.11926.
Venkatesh, V., Thong, J., & Xu, X. (2012). Consumer acceptance and use of information technology: Extending the unified theory of acceptance and use of technology. *MIS Quarterly*, *36*(1), 157–178.
Venkatesh, V., Thong, J. Y. L., & Xu, X. (2016). Unified theory of acceptance and use of technology: A synthesis and the road ahead. *Journal of the Association for Information Systems*.
Wang, C., & Zhang, P. (2012). The evolution of social commerce: The people, management, technology, and information dimensions. *Journal of the Association for Information Systems*, 31.
Woodruff, R. B., & Gardial, S. (1996). *Know your customer: New approaches to understanding customer value and satisfaction*. Wiley.
Yahoo (2005). *Social Commerce via the Shoposphere & Pick Lists*.
Yoon, C., & Kim, S. (2007). Convenience and TAM in a ubiquitous computing environment: The case of wireless LAN. *Electronic Commerce Research and Applications*, *6*(1), 102–112.
Zaroban, S. (2016). U.S. e-commerce grows 14.6% in 2015. Retrieved from https://www.internetretailer.com/2016/02/17/us-e-commerce-grows-146-2015.

Stanislav Mamonov is an Assistant Professor at the Feliciano School of Business, Montclair State University. He received his Doctor of Philosophy in Business at The Graduate Center, CUNY. His research focuses on privacy, intellectual property rights and other factors which affect the sustainability of information exchanges across different contexts which include social networking sites, mobile applications and health management systems. He is also a serial entrepreneur and the founder and CEO of MintFinder, a B2B Big Data analytics platform, which performs real-time clickstream analysis and translates behavioral insights into personalized product recommendations. His research has been published in *Communications of the Association of Information Systems, Computers in Human Behavior, Information Systems Education Journal* and in the proceedings of the *Americas Conference on Information Systems* and the *Hawaii International Conference on System Sciences*.

Raquel Benbunan-Fich is an Associate Professor of Information Systems at the Zicklin School of Business, Baruch College, City University of New York (CUNY). She received her Ph.D. in Management Information Systems from Rutgers University. Her research interests include Virtual Teams and Virtual Communities, User Behavior and Multitasking, Usability of Web-based Systems, and Faculty Productivity. She has published articles on related topics in *ACM Transactions on Computer–Human Interaction*, *Communications of the ACM*, *Decision Support Systems*, *European Journal of Information Systems*, *IEEE Transactions on Professional Communication*, *Information & Management*, *International Journal of Electronic Commerce* and other journals.