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Examining Gifting Through Social Network Services: A Social Exchange Theory Perspective

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Abstract. The increasing popularity of social network services (SNS) presents an opportunity to offer gifting services through SNS. For givers, gifting can be an important means to enhance social relationships. On the other hand, for SNS providers, members' gifting can serve as a major source of revenue. As SNS providers continue to face challenges in generating revenues, understanding how to stimulate gifting through SNS can allow them to profit from members' relationships. However, there is little understanding of what drives members' gifting through SNS, with limited prior research on online gifting. Thus motivated, we develop a research model of the antecedents of SNS gifting that builds on social exchange theory and prior gifting literature, and incorporates the unique aspects of such gifting (that we refer to as microgifting, with low-price digital voucher gifts). The theoretical model was validated through a field study, in which both subjective and objective data were collected from an SNS that has been successful in offering such gifting services. Our findings highlight the effects of perceived worth, SNS gifting experience, and the number of SNS friends on the frequency of SNS gifting. The results also show that expected benefits (i.e., reciprocity, pleasure, relationship support, convenience, and immediacy of gift sending) and costs (i.e., impersonality) indirectly impact SNS gifting frequency through the assessment of perceived worth. The study contributes to research by adding to our understanding of this new approach of gifting through SNS, i.e., microgifting. It also lends insights on how SNS providers can offer such services to tap this source of revenue.

History: Fred Davis, Senior Editor; Wenjing Duan, Associate Editor.

Keywords: gift giving • social network services (SNS) • social exchange theory • perceived worth • microgifting

Introduction

Gift giving is a universal phenomenon that benefits not only recipients but also givers and businesses. For givers, gifting is a salient means to build relationships (Giesler 2006), which in turn are important for their personal well-being (Diener and Seligman 2002). For businesses, the gifting market presents vast opportunities, with sales of \$131 billion in the United States alone in 2015.¹ In fact, it is estimated that 10% of all consumption (i.e., the entire retail market) is used for gift giving. However, gift giving is typically an arduous process that entails time and effort in addition to monetary costs for the giver (Sherry 1983). Yet, there has been little innovation in facilitating gifting since the late 1990s, when companies such as Amazon introduced the purchase of gifts through e-commerce.

With the widespread use of social network services (SNS) for communication and relationship building, SNS have the potential to considerably change the way in which gifting is carried out in online settings. Yet, only a few SNS such as KakaoTalk² and LINE³ have been successful in these efforts.⁴ In SNS gifting through

services such as KakaoTalk, a member can buy a gift (typically a digital voucher) from the online gift store of the SNS and then send the gift through the SNS to any member in her network, who can redeem the gift through their mobile phones. SNS gifting differs from traditional offline gifting and online e-commerce gifting in several important ways. *First*, people tend to give gifts mainly for special occasions (e.g., birthdays) in traditional offline gifting or online e-commerce gifting. By contrast, in SNS gifting, people give gifts in the form of digital vouchers not only for special occasions but also for ordinary occasions, such as for thanking a friend or colleague for a favor. *Second*, the digital vouchers in SNS such as KakaoTalk are mainly for single, low-cost products such as a Starbucks Americano coffee worth US\$3.50. This differs from traditional offline or online e-commerce gifting of physical goods or even gift cards, which are typically not for a single product and of a higher value, e.g., Amazon offers a minimum value of \$25 for a Starbucks gift card. *Third*, SNS gifting allows for immediate and convenient gifting as compared to offline gifting that requires a physi-

cal visit to a store, purchase of the gift, and its delivery. On the delivery side, too, the receipt and use of the SNS gift can be immediate with mobile phone redemption.

The *convenience* and *immediacy* of SNS gifting, thus, exceed even online e-commerce gifting through sites such as [Amazon.com](#) or [gifts.com](#), as SNS gifts are mainly digital (e.g., digital vouchers in KakaoTalk). This is efficient as compared to physical gifts (e.g., clothes) or even gift cards that require mailing or printing and redemption at a physical store or the brand website (see the next section for a more detailed discussion of the differences). On the flip side, SNS gifting suffers from *impersonality* as compared to traditional offline gifting with face-to-face contact. Warmth and emotion in gift giving are more challenging to communicate in SNS gifting. The combined effect of these differences is that SNS gifting allows for immediate and convenient gifting of typically low-price gifts (e.g., digital voucher for a coffee) for even ordinary occasions within a person's SNS network, a phenomenon that we call *microgifting*. We define microgifting in our study context as the practice of a member buying a lower-priced gift (typically a digital voucher) from the online gift store of the SNS and then sending the gift through the SNS to any member in her network, who can redeem the gift through her mobile phone.

However, other than a few successes, SNS providers continue to face challenges as they explore ways to increase their revenues from gifting. A recent casualty was Wantful, a gift-giving startup, which could not secure additional capital and had to close down.⁵ As an even more prominent example, Facebook had to shut down its digital gifts business "Gifts" in 2014 after two years of operation.⁶ With the sustainability of SNS being plagued by the lack of underlying revenue models or by their insufficiency (Kim et al. 2012), knowledge of how to leverage different sources of revenue is essential for their survival (Animesh et al. 2011, Wasko et al. 2011). Yet, there is a lack of understanding of the phenomenon, especially with regard to the drivers behind gifting through SNS. In the past, disparate studies have explored how gift giving in the *offline context* is determined by hedonic (e.g., Ruth et al. 1999), social (e.g., Giesler 2006), symbolic (e.g., Ward and Broniarczyk 2011), and normative (e.g., Komter 2005) motivations. However, SNS gifting brings about major changes in the gifting process as mentioned above, requiring a reexamination of the phenomenon. Furthermore, the few studies on *online gifting* (e.g., Skageby 2007, 2010) have been mainly conceptual or qualitative, and have used a very broad definition of gifting, which includes all forms of online contribution (including knowledge contribution) that may not have immediate implications for revenue generation. Yet other studies (e.g., Sargeant 1999) have considered gifting as referring to philanthropic contributions or

donations, which is not the focus of our study. In sum, we find a lack of theoretically grounded and empirically validated explanations of gifting through SNS. This gap that we identified resonates with calls for research on online gifting in the social networking context (Skageby 2010, Chakrabarti and Berthon 2012).

Thus motivated, we are interested to examine how SNS such as KakaoTalk have been successful in making users participate in SNS gifting, which leads directly to our research question: What drives members to undertake gifting through SNS? To address this question, this study develops and empirically tests a theoretically grounded model of antecedents of members' gifting through SNS. A *gift* is defined as an object that is voluntarily given by one party to another, when the return is unknown (Klamer 2003). Indeed, gift giving is a form of social exchange (Belk 1979), where individuals offer a gift without negotiating terms and typically not knowing whether, when, from whom, and in what form they will be reciprocated (Klamer 2003, Molm et al. 2000). Accordingly, we build on social exchange theory (Blau 1964) to explain the SNS gifting behavior (i.e., frequency of SNS gifting) of an individual, where the decision to participate in the exchange (in this case, give a gift) is based on the giver's assessment of the net benefits of SNS gifting. We identify the motivations or expected benefits of SNS gifting that are relevant to our context from the previous gifting literature. Additionally, we derive other antecedents for our model that are specific to online gifting through SNS. As a result, we develop a research model of SNS gifting frequency that builds on social exchange theory and prior gifting literature, and incorporates the unique aspects of SNS gifting.

Our model was validated by collecting both subjective and objective data about gifting perceptions and behavior from 203 members of KakaoTalk, an instant messaging SNS that has been successful in offering gifting services. Our subjects were chosen as members who had used KakaoTalk at least once for SNS gifting, to gain a clear understanding of how they make decisions about SNS gifting. The objective data for our dependent variable was collected several months after the subjective and objective data for the antecedents to better test for causality. Overall, this study advances the theoretical understanding of what drives this novel form of gifting through SNS, and thereby contributes to the literature on gift giving. Moreover, our findings inform SNS providers on how to adopt this new gifting approach for generating revenue.

Conceptual Background

In this section, we first review prior research on gifting motivations and online gift giving to identify the gap in the literature that our study seeks to address. We then describe the nature of gifting through SNS like

KakaoTalk and distinguish it from traditional offline gift giving and online e-commerce gifting. Last, we show how we build on social exchange theory, prior gifting literature, and the unique attributes of SNS gifting to propose an integrative framework for gifting through SNS that forms the basis for our research model.

Prior Related Research on Gift Giving

Gift giving refers to the behavior of giving an object voluntarily to another party without a known return (Klamer 2003). Separate studies have suggested different motivators for this behavior across four categories (see Table 1), i.e., normative, symbolic, hedonic, and social categories. As per the first category, prior research suggests that individuals’ gift giving is determined by surrounding norms (Giesler 2006, Ruth et al. 1999). In other words, people feel obligated to give gifts to comply with social norms (Wolfenbarger and Yale 1993). Two important kinds of norms in gifting are reciprocity and ritual (Goodwin et al. 1990). *Reciprocity* represents giving a gift as part of a mutual exchange or in expectation of a future return in some form (Pearson 2007). Ritual gift giving is performed as part of special occasions, e.g., birthdays and anniversaries. However, researchers (e.g., Goodwin et al. 1990, Davis 1973) have noted that rituals are often associated with reciprocity as well.

The second category of *symbolic* motivation (e.g., identity expression and symbolic communication) suggests that individuals give gifts to communicate symbolic messages (Belk 1979). This includes providing symbolic representations of themselves and/or their intentions through gift giving (Ward and Broniarczyk 2011, Wolfenbarger and Yale 1993). For example, a young man may give a rose to a girl to express his feelings toward her, while giving her a textbook may not convey the same message.

As per the third category, an individual gives a gift to a recipient because of *hedonic* motivation, i.e., the gifting creates enjoyment (Wolfenbarger and Yale 1993). Givers are said to be motivated by the emotions and pleasure invoked by gift giving. The last category of motivations suggests that people give gifts based on the *social* value of gifting (Ruth et al. 1999). In other words, individuals engage in gifting when it is expected to be helpful for

building or maintaining a relationship with the recipient (Beatty et al. 1991, Giesler 2006). The social motivation of gifting is likely to be important for SNS gifting because members seek to use SNS to enhance their relationships with others.

Relatively few studies till now (Lampel and Bhalla 2007; Pearson 2007; Skageby 2007, 2010) have examined online gift giving in the social media context. Among these, Pearson (2007) conceptually described gift giving in the LiveJournal (LJ) SNS. Here, members’ posting of blogs, journals, or diaries were considered as gifts (i.e., contributions toward public goods). The study classified gifts into object gifts and effort gifts and proposed various rationales for gift giving and acceptance. As per the classification, *object gifts* are physical objects or monetary gifts while *effort gifts* are gifts created through the effort, skills, or knowledge of the giver (Pearson 2007). However, the paper did not provide empirical evidence for the rationales discussed. Similarly, Lampel and Bhalla (2007) examined online gift giving in the form of opinions, information, and advice that individuals post on websites, i.e., effort gifts. In both these papers (Pearson 2007, Lampel and Bhalla 2007), gifting was interpreted in a broad way (by including effort gifts) to cover all kinds of contributions that people make in online communities. Hence, the motivations identified by them, such as status seeking, relate more to the motivations for knowledge contribution (e.g., Kankanhalli et al. 2005) rather than the more common use of the term gifting, which is the focus of this study because of the immediate revenue generation implications.

Skageby (2007) proposed five analytical dimensions of online gift giving in a virtual community context, i.e., initiative (active/passive), direction (public/private), incentive (enforced/voluntary), identification (anonymous/recognized), and limitation (open/restrictive). The study suggested that these dimensions could be used to compare similar technologies of virtual communities with dissimilar social effects. A subsequent study (Skageby 2010) explored the use of gift giving as a conceptual framework for analyzing social behavior in online networks and communities. In this conceptual paper, the author discussed the motivations, values, and reciprocal rules of gifting, based on the broad sense of the term, and linked them to people’s

Table 1. Summary of Gift-Giving Motivations

Category	Proposed motivators	Reference
Normative	Norm of reciprocity, ritual	Belk (1979), Giesler (2006), Komter (2005), Ruth et al. (1999), Skageby (2010), Wolfenbarger and Yale (1993)
Symbolic	Identity expression, symbolic communication	Belk (1979), Goodwin et al. (1990), Ward and Broniarczyk (2011), Wolfenbarger and Yale (1993)
Hedonic	Emotions, enjoyment	Ruth et al. (1999), Wolfenbarger and Yale (1993)
Social	Social relationship, social ties	Giesler (2006), Komter (2005), Ruth et al. (1999), Sherry (1983), Skageby (2010)

contribution behaviors in online communities. In summary, we observed a lack of research that theoretically models and empirically tests the antecedents of gifting through SNS, with a majority of the previous literature being conceptual or anecdotal, and/or more broadly covering people’s online contribution behaviors in general.

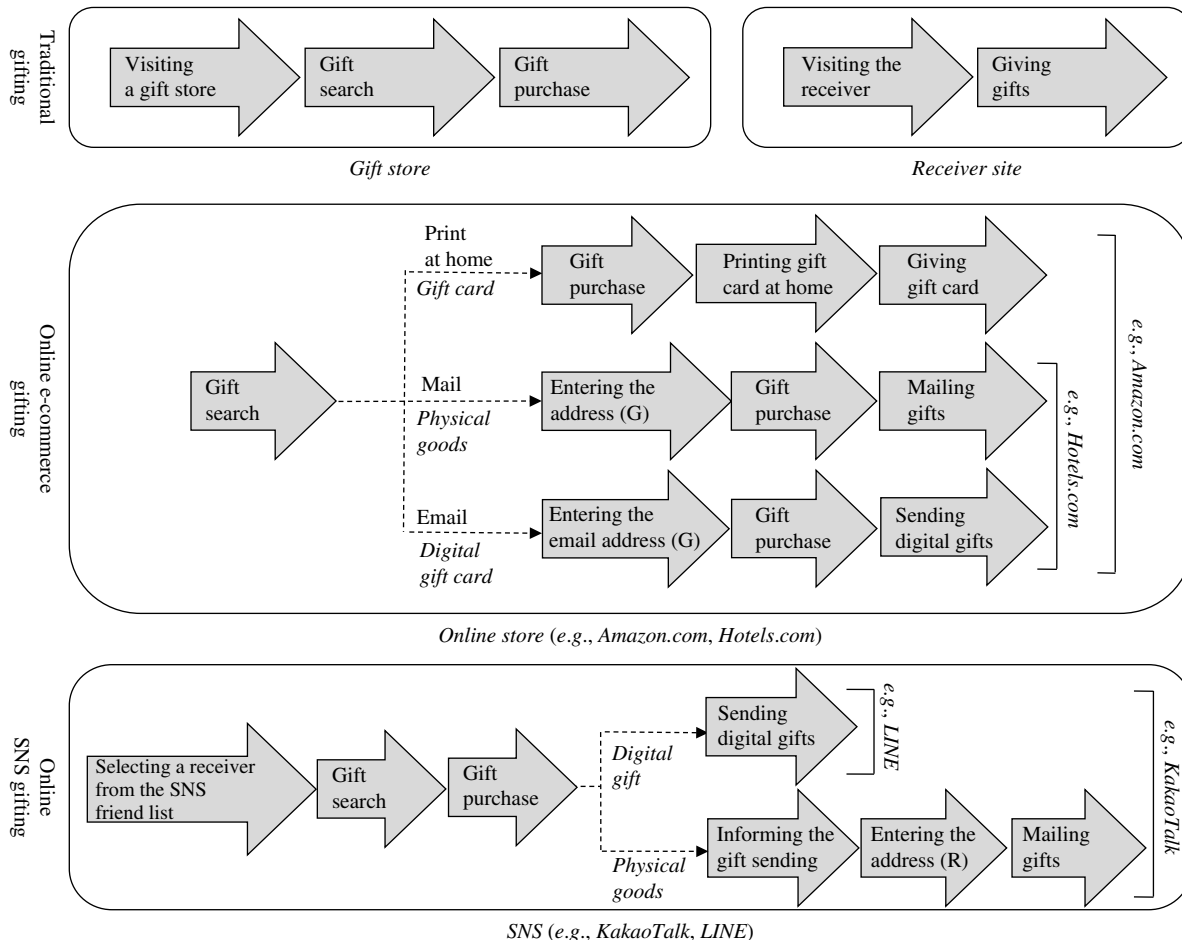
Gifting Through SNS

We show the processes of gift selection, purchase, and delivery in the three forms of gifting, i.e., traditional offline gifting, online e-commerce gifting, and SNS gifting, in Figure 1. Particularly, we distinguish gifting through SNS like KakaoTalk from the more common online e-commerce gifting services exemplified by sites such as Amazon.com. As an example, online gifting services at Amazon.com have three delivery options (see Figure 1): (1) print at home (paper gift cards), (2) mail (mailing physical goods or plastic gift cards after entering the postal address of the recipient), and (3) email (sending digital gift cards via email to a recipient). Gifts could be in the form of physical

goods (e.g., clothes) or gift cards (paper, plastic, or digital) each with a claim code. The recipients can redeem the gift card by visiting the corresponding brand store (e.g., Applebee’s, GAP) or by visiting the website of the corresponding brand (e.g., Amazon.com, Hotels.com). Other companies also offer online gifting services, typically by email delivery (e.g., Starbucks, Apple, and Walmart). Online gifting through SNS such as KakaoTalk uses a new delivery channel (SMS), with the condition that givers and recipients should be members of the same SNS. This implies that the giver does not have to enter the address or email of the recipient. Also, with the common form of gift being a low-price, specific item (e.g., a digital voucher for a Starbucks Americano) on such SNS, this encourages more frequent and convenient microgifting.

Furthermore, there are several differences between traditional offline gifting and gifting through SNS (see Figure 1 and Table 2), with the underlying difference being the use of the SNS channel in the entire gifting process. Traditional offline gift giving starts from visiting one or more physical stores to select the

Figure 1. Comparison Between Traditional Offline Gifting, Online E-commerce Gifting, and SNS Gifting



Note. (G), By the giver; (R), by the recipient.

Table 2. Comparison Between Traditional Gifting and SNS Gifting

Dimension	Traditional face-to-face gift giving	SNS gifting
Time	Time spent for visiting physical gift stores and the recipient Time gap between gift purchase and gift giving	No time spent for visiting the gift stores and the recipient No time gap between gift purchase and gift sending
Place	Gift stores in the physical world Presenting gifts in person (colocation of the giver and the recipient)	Online gift stores of SNS Sending gifts through SNS without colocation constraint
Gift form	Mainly physical form, e.g., physical goods, gift card, cash	Mainly in digital form, e.g., digital gift voucher to be redeemed at the store, often low price (called microgifting)
Parties involved	Part of giver's network	SNS membership for both givers and recipients
Context	Low risk of impersonality Gift giving mostly for special occasions (e.g., birthdays)	High risk of impersonality Gift giving for more ordinary situations (e.g., thanking a friend for a favor)

gift (Beatty et al. 1991), while online gifting in SNS involves selecting and buying the gift through the SNS channel. When people are separated by time and space, traditional offline gifting becomes arduous. By contrast, there are essentially no time- and place-related constraints in SNS gifting, i.e., the gift can be purchased 24/7 at any location where there is access to the SNS. Also, gifting through SNS reduces search costs as the gifts can be found and purchased at the SNS site itself, while people need to choose a store, physically go there, and select a gift in traditional gifting. After purchasing the gift (digital voucher) from the SNS site through electronic payment, it is possible to send it in real time and include a short message, which implies a change in both the gift-giving behavior and the method of communication. For example, people can easily send a digital voucher for a cup of Starbucks coffee with a message to their SNS friends. The voucher can be redeemed by the recipient at the nearest brand store from their mobile phone. Members can also choose to send physical goods through SNS gifting, though this is far less common than digital vouchers. For physical goods, a text message is sent to the recipient by the SNS notifying them about the gift and the giver. The recipient then enters their mailing address as a response to the text message from the SNS. Because of its convenience and typically low price, people often perform SNS gifting in ordinary circumstances, such as to thank a friend for a favor, rather than only for special occasions such as birthdays.

Apart from the procedure of gifting described above, the offline and SNS gifting modes also differ in the form of the gift, the parties involved, and the context. Gifts in SNS are conveyed mainly in digital form (e.g., digital voucher for a cup of Starbucks coffee) while the gifts in traditional gifting are mainly physical goods. Furthermore, gifting in the SNS context requires both givers and recipients to be members of the SNS (e.g., KakaoTalk, LINE). By contrast, there are no membership-related constraints in traditional

offline gifting. However, the recipient being a member of the same SNS facilitates the delivery of the gift as compared to locating the physical address of an offline recipient. Last, givers often meet the recipient in person to present the gift in traditional gift giving, though there could be the case of gifts sent by post. By contrast, SNS gifting does not require givers to meet the recipient in person. Thus, there could be a degree of impersonality in SNS gifting compared to traditional face-to-face gifting.

In sum, compared to traditional offline gift giving, SNS gifting is characterized by its *convenience* of purchasing gifts and *immediacy* of sending gifts, although there is a risk of *impersonality* and a requirement that both givers and recipients should be members of the SNS. Typically, the gifts given are low priced, which we refer to as microgifting. With the unique attributes of this new form of gifting and its lack of study till now, this motivates us to develop and empirically test a theoretical model of gifting through SNS. For this purpose, we build on social exchange theory to explain how people assess and decide to undertake gifting through SNS.

Social Exchange Theory and an Integrative Framework

Social exchange theory (SET) is a sociopsychological perspective that explains human behavior in *social exchanges* (Blau 1964), which differ from *economic exchanges* in that the terms of exchange are not precisely specified. In social exchanges, people contribute resources with a general expectation of some future return, but no clear expectation of exact future return. Thus, social exchange assumes the existence of relatively long-term relationships of interest as opposed to one-off exchanges (Molm 1997). SET has been used to explain gifting in several prior studies (e.g., Belk 1979, Mathur 1996, and Hall 2001). Specifically, Belk (1979) noted that gifting is a form of social exchange because

gifting aids in establishing, defining, and maintaining social relationships between givers and recipients.

Indeed, prior literature has highlighted several characteristics of social exchanges that substantiate our view of gifting as a form of social exchange. First, reciprocity, obligation, and commitment are viewed as the basis for social exchanges (Emerson 1981). Second, social exchanges are open-ended and require a long-term orientation (Blau 1964). This differs from purely economic exchanges (such as paying for the purchase of a good), which are typically short-term (e.g., one-off) and involve contractual give-and-take. A final characteristic of social exchanges is that the resources (costs and benefits) exchanged are often intangible (e.g., reciprocity, pleasure) as compared to tangible (e.g., financial) benefits and costs in purely economic exchanges. We thus consider gifting as a form of social exchange because (1) the gifting relationship typically extends over time (usually more than one exchange transaction), (2) it entails reciprocity and obligation, and (3) the costs and benefits to participants are often intangible, e.g., gifting may offer pleasure to the giver.

Furthermore, SET has been extended beyond the dyadic perspective to generalized exchanges (Bagozzi 1975, Yamagishi and Cook 1993, Molm 2003, Skageby 2010), including gift exchanges (Cook and Rice 2006). A traditional *dyadic exchange* occurs between two parties when the resources that one party provides are directly contingent on the resources that the other party provides in return. However, a *generalized exchange* implies that what one party gives to another is not directly contingent on what the party receives from the other (Yamagishi and Cook 1993). For example, in a generalized exchange, A may gift B, B may gift C, and in turn C may gift A. Correspondingly, Molm (2003) classified the reciprocation in dyadic exchanges as *direct* and in generalized exchanges as *indirect*.

We posit that SNS gifting, e.g., in KakaoTalk, can be seen as a combination of dyadic and generalized exchanges, characterized by both direct and indirect reciprocation. This agrees with prior research (Cook and Rice 2006, Klamer 2003) that the reciprocal relations in gifting are not limited to dyads, but also occur in the context of family or other social groups. An example of a direct, dyadic reciprocation is a gift exchange between two friends. An example of indirect or generalized reciprocation can be seen in gift giving in kinship networks. When an individual sends a gift to their sister's young child, the sister (rather than the child) may send a gift to that person in return. Or the sister may even send a gift to that person's child in return. From these examples, it can be seen that both dyadic and generalized social exchanges exist in SNS gifting. In summary, SET serves as a suitable theoretical framing for us to examine the aggregate SNS gifting

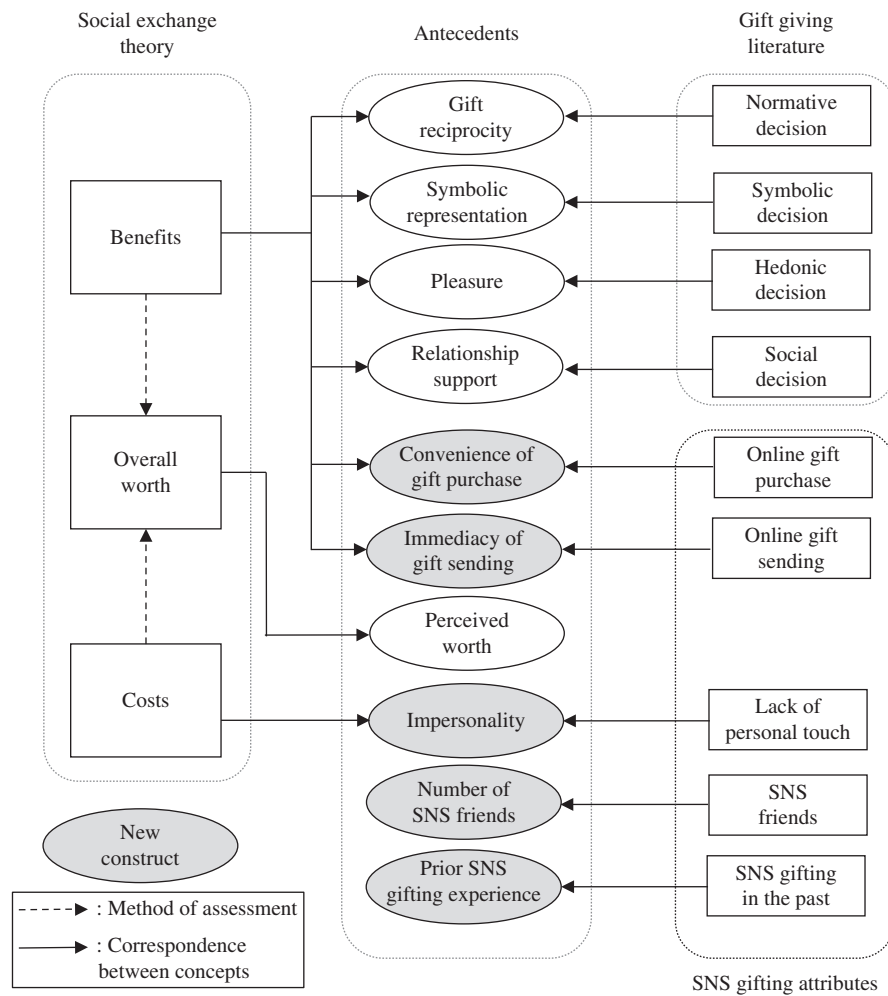
behavior of a giver via KakaoTalk that includes both forms of social exchanges.

SET proposes that people assess the overall worth of a social exchange based on a comparison between its benefits and costs (Blau 1964, Molm et al. 2000). Resources (tangible and intangible) given away during a social exchange or negative outcomes of the exchange can be seen as costs while resources received as a result of social exchange or positive outcomes of the exchange can be seen as benefits (Blau 1964, Kankanhalli et al. 2005). The overall worth then determines if they will take part in the social exchange. Previous research has examined knowledge contribution in organizations as a form of social exchange that employees decide to participate in based on an analysis of the expected costs and benefits of the behavior (Kankanhalli et al. 2005). Similar to knowledge contribution, gift giving is considered as a social exchange because it establishes relations between individuals (Belk 1979), yet the gift is offered voluntarily to another person without negotiation of terms or expectation of compensation (Belk 1979). We therefore employ SET as our theoretical lens to explain gifting through SNS.

SET posits that people assess the *worth* of a social exchange (in this case, gifting) based on a subjective comparison between its benefits or rewards and costs, when deciding whether to participate in the exchange (Blau 1964, Molm et al. 2000). As per Blau (1964) *costs* are the resources given away during a social exchange or negative outcomes of the exchange, while *benefits* are the resources received as a result of social exchange or positive outcomes of the exchange. As mentioned earlier, both costs and benefits could be intangible in social exchanges. As reciprocal interdependence forms a common basis for social relationships (Jones 1976), expected *reciprocity* is typically considered as a benefit for a giver in a social exchange, and obligation as a cost for the recipient. Other than reciprocity or obligation, the costs and benefits of the social exchange could be identified from the context itself—the particular costs or benefits (and their arguments) are not specified by SET.

We now describe how we make use of SET and prior research on gift giving, along with the unique attributes of SNS gifting, to develop an integrative framework for our study. This aids in understanding how various antecedents work together to determine online gifting behavior through SNS. Figure 2 shows the proposed integrative framework that forms the basis for our theoretical model explained in the next section. According to SET, the overall worth of a social exchange is assessed based on a comparison between its expected benefits and costs. Overall worth is represented by *perceived worth* in our model. To identify the benefits and costs of the social exchange, i.e., gift giving, for our model, we made use of prior research

Figure 2. Integrative Framework for SNS Gifting



on gift giving and added new factors relevant to the specific context of SNS gifting. As noted earlier, prior literature has suggested four categories of gift-giving motivations (see Table 1).

The normative category comprises motivations of conforming to norms related to gifting. As mentioned above, a strong norm for gifting that is also an important concept in SET is reciprocity (Blau 1964). People may give gifts because they expect favors or wish to create an obligation in return (Giesler 2006, Komter 2005). Generalized reciprocity norms (where reciprocity may be indirect) have been observed in other contribution settings as well, e.g., Fulk et al. (1996). Thus, we propose *gift reciprocity* as an antecedent for our model.⁷ The symbolic category includes gifting motivations related to symbolic communication. Among many others, gifts (Berking 1999) can serve as symbols for normative ideas (e.g., a “green” gift), judgments (e.g., a gift for good performance), and expressions of taste (e.g., a vintage wine) of the giver. Therefore, we propose *symbolic representation* through gifting as an antecedent for our model. The hedonic category comprises motivations

for gifting based on emotions. Here, we propose *pleasure* obtained from gifting (Wolfinger and Yale 1993) as a hedonic motivator for our model. The pleasure could derive from the giver being able to show affection or make the recipient happy through the gift. The social category includes people’s motivations to build and maintain social relationships through gifting (Komter 2005, Ruth et al. 1999). Indeed, humans maintain relationships largely by giving and taking services, information, and goods among each other. Thus, we propose *relationship support* from gifting as an antecedent for our model. The above four decision factors correspond to benefits expected from SNS gifting as per SET, because they serve as positive outcomes for the gift giver.

Within the framework of SET, we propose three other antecedents for our model by considering the unique attributes of SNS gifting. As discussed earlier about the gifting procedure, gifting through SNS is characterized by the convenience of gift purchase and the immediacy of gift sending in the SNS. We therefore propose *convenience of gift purchase* and *immediacy of gift sending* as two

antecedents that serve as benefits (positive outcomes for the giver) in SNS gifting. With respect to the gifting context, SNS gifting is characterized by giving gifts without a face-to-face meeting with the recipient. As givers and recipients do not meet in person, there could be a lack of personal touch and worry about impersonality in SNS gifting. We, therefore, propose *impersonality* in SNS gifting as an antecedent that corresponds to a nonmonetary cost in a social exchange. Last, another cost factor, perceived price, from the gifting literature was considered less relevant to SNS microgifting (with low price gifts) and not included in our main model (it is added as a control variable).

We further propose two additional antecedents specific to SNS gifting. Compared to traditional offline gifting and online e-commerce gifting, SNS gifting requires a recipient to be a member and appear in the giver’s SNS friend list. Indeed, the number of friends is an important variable in social networks and we argue that it defines the consideration set (Narayana and Markin 1975) for gifting. Also, prior gifting experience may affect future SNS gifting behavior through reducing uncertainty or habituation (Ajzen 2002). Here, we differentiate that gifting experience in offline gifting is typically with a particular store, whereas gifting experience in SNS gifting is with the gifting platform, e.g., KakaoTalk. We therefore propose *number of SNS friends*

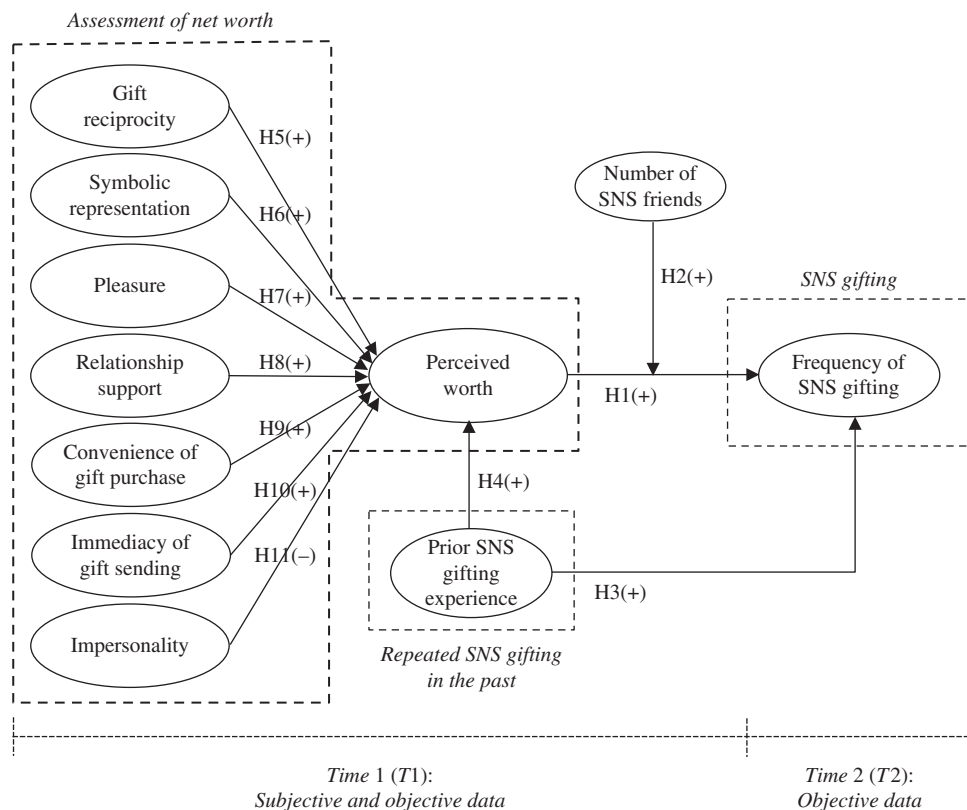
and *prior SNS gifting experience* as antecedents in our model. The integrative framework in Figure 2 shows the proposed antecedents for our model and how they correspond to the SET, prior gift giving literature, and unique SNS gifting attributes.

Research Model and Hypotheses

As per the theoretical framework in the previous section, we propose the research model shown in Figure 3 to explain individual’s gifting behavior through SNS in aggregate that includes dyadic and generalized exchanges as discussed above. The dependent variable is assessed through an objective measure, i.e., *frequency of SNS gifting* in a given time period. The frequency of gifting of members is an important outcome for the SNS provider, considering that it directly impacts gifting revenue.⁸ There can be two paths driving human behavior (Ajzen 2002): (1) people perform behaviors based on careful deliberation and assessment of the current state as per the reasoned action perspective, that aligns with the SET view here, and (2) people perform behaviors that have been repeated in the past as per the habituation perspective.

Following the first path and as per SET, we propose that *perceived worth* of SNS gifting will be a determinant of gifting behavior. The impact of *perceived worth*

Figure 3. Research Model



on SNS gifting can be influenced by the giver's number of SNS friends. We therefore expect the *number of SNS friends* to moderate the relationship between perceived worth and SNS gifting as will be hypothesized later. Furthermore, the antecedents in our framework of Figure 2 that correspond to the expected benefits and costs of SNS gifting are hypothesized to influence perceived worth. As per the second path, behavior (in this case SNS gifting) can be predicted from repeated actions in the past (Aarts et al. 1998). We therefore propose *prior SNS gifting experience* as an additional determinant of SNS gifting, which also affects the current assessment of perceived worth. Controls in the form of age, gender, tenure of SNS use, frequency of SNS use, and perceived price are also included in the model. The model hypotheses are elaborated next.

Worth has been conceptualized as an assessment of (both tangible and intangible) benefits against costs in a social exchange (Blau 1964, Molm et al. 2000). Here, we define perceived worth as *the giver's perception of the net benefits (i.e., perceived benefit relative to perceived costs) of gifting through SNS for a prototypical gifting occasion*, adapting from prior research (Kim and Gupta 2009). SET suggests that people assess the overall worth of a social exchange (in this case SNS gifting) based on the comparison between its benefits and costs. If the benefits exceed the costs, then positive net benefits would be perceived and the individual would be likely to participate in the social exchange (Blau 1964, Molm et al. 2000). In the context of SNS gifting, too, if the giver perceives positive net benefits from gifting, she should be inclined to undertake the behavior. If the net benefits or perceived worth is higher, then the giver is likely to carry out the behavior more often to avail the benefits, i.e., the frequency of SNS gifting should increase.

Hypothesis 1 (H1). *Perceived worth has a positive effect on the frequency of SNS gifting.*

While perceived worth is hypothesized to positively impact SNS gifting behavior, the impact would be contingent on the gift giver's social network, i.e., the number of SNS friends. The number of SNS friends can be interpreted in terms of the consideration set of a consumer (Narayana and Markin 1975). Compared to traditional offline gifting and online e-commerce gifting, SNS gifting requires the recipient to be a member and appear in the giver's SNS friend list, i.e., a giver will select a recipient from her SNS friend list. Gift givers as consumers need to decide whom to gift to and what to gift. Here, the consideration set of whom to gift to consists of the giver's SNS friends. As the size of the consideration set increases, the giver may have more chances of SNS gifting, even with the same level of perceived worth of SNS gifting. That is, perceived worth should lead to greater gifting frequency for individuals who have more opportunities via more SNS friends (i.e., a larger consideration set).

A larger number of friends could not only increase the number of potential gift recipients a gift giver may consider, but it could also increase the number of friends from whom gifts have been received before (Osteen 2013, Sahlin 1972). As per SET, obligation would be perceived in social exchanges (Blau 1964). This implies that with more SNS friends, the individual will experience more obligation to return gifts to them through SNS, but the gifting will still depend on the extent of perceived worth, i.e., people will choose SNS gifting when there are more benefits than costs in it. In other words, the effect of perceived worth on the frequency of gifting will increase as the number of SNS friends increases—by creating more opportunities and demands or obligations of gifting. Also, since most gifts in the SNS are low priced, the cost incurred with more friends may not be a salient barrier for SNS gifting. On the other hand, if a giver has fewer SNS friends, then there would be a smaller recipient set to select from. In such a case, the giver may have fewer chances and demands of gift giving via SNS (i.e., lead to a lower frequency of SNS gifting) even with the same level of perceived worth.

Hypothesis 2 (H2). *The effect of perceived worth on the frequency of SNS gifting increases as the number of SNS friends increases.*

When users are not familiar with SNS gifting, their assessment of the net worth of gifting as a social exchange may require more information processing effort because of the lack of knowledge about it. For instance, the user may try to find out how reliable the service is from others. By contrast, when users become familiar with SNS gifting through repeated experiences, less deliberation is likely to occur (Bozinoff 1982) to decide about future gifting. Indeed, the habituation perspective suggests that as the prior experience of a behavior (in this case SNS gifting) increases, the behavior will be guided by automated cognitive processes (Ajzen 2002). Along similar lines, previous studies note that the experience of past behavior contributes to future behavior based on the residual effects of the past behavior (Aarts et al. 1998, Ronis et al. 1989). Thus, prior SNS gifting experience should increase the frequency of SNS gifting.

Hypothesis 3 (H3). *Prior SNS gifting experience has a positive effect on the frequency of SNS gifting.*

Uncertainty is of greater concern to individuals having little experience of a behavior (in this case SNS gifting) as compared to those with repeated experience (Kim and Gupta 2009). Such uncertainty, e.g., whether the gift will be delivered correctly, acts as a nonmonetary cost that can decrease the net worth (Blau 1964)

of SNS gifting. Compared to users with little experience of SNS gifting, users with more prior experience would perceive a higher level of certainty in giving gifts through SNS. Repeated SNS gifting in the past therefore reduces uncertainty-related nonmonetary costs and thus increases the perceived worth of SNS gifting during the current assessment. Prior SNS gifting experience should therefore positively affect the assessment of the perceived worth of SNS gifting.

Hypothesis 4 (H4). *Prior SNS gifting experience has a positive effect on perceived worth.*

Reciprocity has been highlighted as a key benefit for individuals to engage in social exchange, where interactions are not one-off and continue over time (Blau 1964). Gifting, too, as a form of social exchange is said to be governed by norms of reciprocity (Pearson 2007). Indeed, reciprocity has been suggested as a normative benefit of gifting where people expect to obtain future returns from the gifts they have given (Giesler 2006, Komter 2005). Here, we define gift reciprocity as *the belief that current SNS gifting will lead to future gifts or returns to the giver*. This benefit is expected because gift recipients are likely to conform to the reciprocity norms of the community because of the need for social approval as well as the fear of sanctions for noncompliance (Ajzen 1991), e.g., no one may interact with them in the future if they do not reciprocate. Thus, givers can expect future benefits in return for gift giving, which can enhance the net benefits (Zeithaml 1988) of SNS gifting for them.

Hypothesis 5 (H5). *Gift reciprocity has a positive effect on perceived worth.*

Gifts may convey a wide range of symbolic messages, such as the status of a relationship and the expression of the giver's identity (Belk 1979). Thus, givers can experience symbolic utility from gift giving (Belk 1979). As a benefit expected from SNS gifting, we define symbolic representation as *the giver's perception of the capability of SNS gifting to express and communicate symbolic messages to the recipient*. Indeed, individuals not only purchase goods for functional or experiential purposes but also for symbolic or expressive purposes (Smith and Colgate 2007). This is also true in the online context where people purchase and use digital items for symbolic communication in the form of identity presentation (Kim et al. 2012). The behavior of giving gifts has symbolic benefits through expressing emotions (Sherry 1983, Ward and Broniarczyk 2011) or conveying special meanings to the recipient (Giesler 2006, Skageby 2010). Thus, such symbolic benefit should enhance the net benefits (Zeithaml 1988) of SNS gifting.

Hypothesis 6 (H6). *Symbolic representation has a positive effect on perceived worth.*

Gift giving can provide pleasurable experiences to the giver (Ruth et al. 1999). Previous research has suggested that a giver enjoys the emotions and pleasure invoked by gift giving (Wolfinbarger and Yale 1993). Adapting from prior definitions of pleasure (e.g., Holbrook et al. 1984), we define pleasure as *the degree to which the giver feels good or happy by gifting through SNS*. Indeed, pleasure has been proposed as an emotional benefit that people consider when making decisions (Sweeney and Soutar 2001), where emotional benefit refers to the utility derived from the affective state or feelings arising from a choice. Thus, such an expected emotional benefit should enhance the net benefits (Zeithaml 1988) of SNS gifting.

Hypothesis 7 (H7). *Pleasure has a positive effect on perceived worth.*

Gift giving has been recognized as a behavior that serves to develop social relationships (Belk 1979). Accordingly, people may decide to give gifts based on the social benefit of gifting, i.e., it helps in building or maintaining a social relationship with the recipient (Komter 2005, Pearson 2007, Skageby 2010). For our study, we define relationship support as *the giver's perception of the capability of SNS gifting to help form, maintain, and enhance interpersonal relationships with others in the target SNS*, adapted from previous research (Bowlby 1969). In general, relationship support has been proposed as a social benefit that people consider when making decisions (Sweeney and Soutar 2001). In the case of gifting, this social benefit results from the interaction between the giver and recipient, that forms emotional bonds and friendships between them (Belk 1979). This social benefit should thus enhance the net benefits (Zeithaml 1988) of SNS gifting.

Hypothesis 8 (H8). *Relationship support has a positive effect on perceived worth.*

Gift giving entails the expenditure of time and effort toward gift selection and delivery (Beatty et al. 1991). A salient difference between traditional offline gifting and SNS gifting is the gift-giving procedure (see Figure 1). People can more easily find and purchase gifts electronically from the gift store of an SNS and immediately send them in the form of digital vouchers to recipients through the SNS, anytime and anywhere. The giver can thus enjoy convenience in gift selection and purchase via SNS, where we define convenience of gift purchase as *the perception of time and effort saved in the gift purchase procedure, i.e., from browsing to selecting and purchasing gifts, in the target SNS*, adapting from Berry et al. (2002).

The giver can also enjoy the immediacy of sending gifts to a recipient via SNS in the last step of the gifting procedure. We define immediacy of gift sending as *the perceived lack of delay in sending gifts via SNS*. These

two factors correspond to functional or utilitarian benefits of SNS gifting from a giver's perspective (Sweeney and Soutar 2001). Specifically, gifting through SNS provides ease of conducting gift searches and purchase, as well as the online delivery of gifts (e.g., digital vouchers) with no time delay. Functional benefits can enhance the net benefits (Zeithaml 1988) of SNS gifting. Thus, convenience of gift purchase and immediacy of gift sending, as benefits of the social exchange (Blau 1964), should increase the perceived worth of gifting through the target SNS.

Hypothesis 9 (H9). *Convenience of gift purchase has a positive effect on perceived worth.*

Hypothesis 10 (H10). *Immediacy of gift sending has a positive effect on perceived worth.*

As a nonmonetary cost, we define impersonality as the degree to which a giver feels concerned about the lack of personal contact in gifting via SNS. A giver usually desires the personal contact with the recipient that occurs in traditional gift giving. Especially, face-to-face interaction increases the overall perception of personal contact as compared to online interaction (Mallen et al. 2003). In SNS gifting, the giver may miss the personal touch of giving and receiving gifts because it does not require an in-person meeting between the giver and the recipient. The giver may therefore feel hindered by such a nonmonetary cost when deciding whether to engage in SNS gifting. This nonmonetary cost can thus affect net benefits negatively (Zeithaml 1988), as also explained by SET (Blau 1964).

Hypothesis 11 (H11). *Impersonality has a negative effect on perceived worth.*

Research Methodology

To test our research model and hypotheses, we conducted a field study where data on member gifting was collected from KakaoTalk on two occasions, separated by four months. The design of a two-stage longitudinal data collection with primary and secondary data provides evidence of strong internal validity (Ou et al. 2014, Straub et al. 2004). We collected survey and objective data for the independent (IV) and control variables in the model four months before the collection of objective data for the dependent variable (DV) and the SNS gifting amount. A four-month time lag between the IVs and DV has been commonly used in e-commerce (Ou et al. 2014) and other information systems research (Hsieh et al. 2011).

KakaoTalk Background

We selected KakaoTalk as the SNS for our study because it is an exemplar of an SNS profiting from gifting. KakaoTalk first began as an instant messaging service in March 2010, and has since evolved into a

global service with social networking features.⁹ Overall, KakaoTalk currently has around 158 million users in over 196 countries and is available in 15 languages.¹⁰ People can download and install a free mobile application of KakaoTalk from either the AppStore or the Android Market. During the installation, the user needs to register her mobile phone number. Subsequently, those people listed in the user's mobile phone contact list who already use KakaoTalk are automatically included in the user's KakaoTalk friend list. After that, whenever the user enters a new friend's mobile phone number in her mobile phone contact list, the friend will be registered on the user's KakaoTalk friend list automatically, only if the friend is a KakaoTalk user. KakaoTalk's main purpose is to cultivate social relationships by supporting communications. People can text message friends in KakaoTalk for free. They can also create social groups of friends in KakaoTalk for relationship management.

As for gift giving through KakaoTalk, a user can select a recipient from her KakaoTalk friend list, select a gift in the online gift shop of KakaoTalk, charge it to her mobile phone or credit card, and send the gift to the recipient through KakaoTalk. In the case of digital gifts, the gift is delivered electronically to the recipient as a digital gift voucher. In the case of physical goods, KakaoTalk sends a message to the recipient automatically after the giver's purchase of the gift. The recipient then needs to enter her mailing address as per the message received from KakaoTalk. As of January 2016, KakaoTalk offered more than 13,000 gifts in cooperation with more than 2,000 brands.¹¹ This covers brands in sectors such as bakery (e.g., Paris Baguette), cafe (e.g., Starbucks), fast food (e.g., Burger King), movie theater (e.g., CGV), convenience store (e.g., 7-Eleven), sportswear (e.g., Nike), cosmetics (e.g., L'Oréal), and restaurant (e.g., Outback Steakhouse). Each brand (e.g., Starbucks) offers different gifts (e.g., Americano, Caffè Latte, and Hot Chocolate). The gift prices range from US\$1 to US\$100 in most cases, with many gifts costing less than US\$10. Aggregate revenues for gifting services on KakaoTalk were approximately US\$41.7 million in 2015 and are estimated to grow to US\$76 million by 2018.¹² However, microgifting services through KakaoTalk were only available in South Korea at the time of data collection for this study. As 75% of the South Korean population uses smartphones and 93% of these users use KakaoTalk,¹³ users from South Korea provide a suitable sample for our study.

We compare KakaoTalk gifting with a salient e-commerce gifting service provider, Amazon.com (see Table 3) to illustrate its specific features. For sending gift cards via Amazon.com, givers need to select the delivery type (e.g., mail), gift card with its corresponding brand (e.g., Starbucks gift card), and denomination of the gift card (e.g., \$25 or \$50). They also have to print

Table 3. Comparison Between Amazon.com and KakaoTalk Gifting

	Amazon.com	KakaoTalk
Types of gifts	Digital gift cards (by email) Physical gift cards (by mail) Physical goods (by mail)	Digital voucher (by messaging) Physical goods (by mail)
Delivery type	Mail Print at home Email	KakaoTalk (messaging) Mail
Giver's selection for gift giving	Recipient Delivery type Brand of gift card/physical gift Denomination of card	Recipient from the SNS friend list Gift to be sent
Giver's input	Email address Postal address Printing	None
Payment	Credit card	Credit card Mobile phone (electronic payment)
Gift	Money in the form of a gift card (e.g., \$25 to be spent at Starbucks) Price relatively higher	A specific gift in the form of a digital voucher (e.g., a cup of Starbucks coffee) Price relatively low (microgifting)
Recipient	Physical goods: Receive by mail Physical gift cards: Receive by mail and redeem at store (including online if present) Digital gift cards: Receive by email, print and redeem at store (including online if present)	Physical goods: Receive by mail Digital voucher: Receive by messaging and redeem at store on phone
Gift giving occasions	Special occasions (e.g., anniversary)	Ordinary situations (e.g., thanking a friend for a favor)

the gift card, mail it, or email it by entering the postal or email address of the recipient themselves (see Figure 1). Through these gift cards, people are essentially giving money that can be spent in a particular store, rather than a specific gift. When they send such gift cards or physical gifts via Amazon.com, such online e-commerce gifting becomes somewhat similar to traditional offline gift giving, which is most often done for special occasions.

For sending digital vouchers via KakaoTalk, givers select a specific gift of a particular brand (e.g., a cup of Starbucks Americano worth US\$3.50) and pay electronically, after selecting the recipient from their SNS (i.e., KakaoTalk) friend list—there is no need to provide the address. The digital voucher is sent via text message to the recipient, who can redeem the voucher saved in her smartphone at any nearby Starbucks location. Indeed, gifting through KakaoTalk occurs mainly in the form of digital vouchers for specific gifts of small amounts as mentioned above. Thus, people can give gifts to their SNS friends conveniently, without spending much, and even for ordinary situations—as compared to e-commerce gifting through sites such as Amazon. KakaoTalk does not offer mailing of plastic gift cards as part of its gifting service. However, for physical gifts, KakaoTalk still uses mail delivery. Our interviews with a few members and a manager

of KakaoTalk reveal that people use SNS gifting for more ordinary situations than traditional face-to-face gift giving.

Instrument Development

Gifting behavior has typically been measured in terms of the effort expended and the frequency of gifting (e.g., Beatty et al. 1991). Since the effort expended is less of an issue in SNS gifting, we use *frequency of SNS gifting* (i.e., the number of SNS gifting instances in the given four-month period) as our DV. We also collected data on the *SNS gifting amount* (i.e., amount of US\$ spent for SNS gifting in the given four-month period) for our posthoc analysis (see Endnote 8). Both these objective measures were collected in the second stage (T2) i.e., four months after the remaining variables. In the first stage (T1), we collected objective data on each respondent's *number of SNS friends* (i.e., number of friends in the respondent's KakaoTalk friend list) and *prior SNS gifting experience* (i.e., number of gift giving instances in KakaoTalk till then divided by the tenure). Additionally, objective data for the control variables of age, gender, tenure in the SNS, and frequency of SNS use were collected at time T1. Other than these objective constructs, all other subjective constructs were operationalized as multi-item scales.

To develop our survey instrument to measure the subjective constructs, we adopted existing scales wherever possible. Scales for *perceived worth* were modified from the value construct of Sirdeshmukh et al. (2002) and Kim and Gupta (2009) to the context of SNS gifting. They were measured as the perceived benefits with respect to the costs involved in SNS gifting. We adapted the items for *gift reciprocity* from the measures of reciprocity in Kankanhalli et al. (2005). To measure *symbolic representation*, we developed our own items based on the definition of the construct. Symbolic representation refers to expressing oneself or communicating a message from the giver to the recipient through the SNS gift in this study. Thus, we developed four items to measure symbolic representation: “conveys a message or meaning to the recipient,” “expresses my emotions toward the recipient,” “signifies my relationship with the recipient,” and “expresses my perception of the recipient.” Items for *pleasure* were adapted from measures of the same construct in Holbrook et al. (1984).

Scales for *relationship support* were adapted from Bowlby (1969) to fit the definition of the construct in our study: “make friends,” “enhances my relationship,” “better personal bond,” and “closer relationship.” Items for *convenience of gift purchase* were adapted from the convenience construct in Torkzadeh and Dhillon (2002). To measure *immediacy of gift sending*, we developed our own items based on the definition of the construct: “sending gifts via KakaoTalk is very fast,” “send gifts without delay,” “processes the sending of my gifts very quickly,” and “instantaneously.” To measure *impersonality*, we developed our own items based on the definition of the construct: “missing the personal touch,” “missing the excitement,” “not with the recipients,” and “too impersonal.” Scales for *perceived price* were adapted from the similar construct in Kim and Gupta (2009). All items were phrased with respect to gifting through the target SNS, KakaoTalk.

Three researchers reviewed the survey instrument along with the definitions of constructs. We then conducted a sorting exercise with four senior Ph.D. students as judges. Overall, the four sorters correctly placed the items onto the intended constructs. The sorting results indicated that the interjudge raw agreement scores averaged 0.84, kappa scores averaged 0.82, and the average overall placement ratio of items within the targeted constructs was 0.94. Next, the survey instrument was reviewed for any ambiguity of wording or format by a focus group of six KakaoTalk members. The final version of the questionnaire is shown in Appendix A.1. The measurement items were anchored on a seven-point Likert scale (1 = strongly disagree, 7 = strongly agree) except for the *pleasure* scale.

Data Collection

As mentioned before, our data collection consisted of two waves at different points in time: (1) in the first

wave (T_1), we collected subjective and objective data for the independent and control variables, and (2) in the second wave (T_2), we collected objective data for the dependent variable (i.e., frequency of SNS gifting) and another outcome for our posthoc robustness test (i.e., SNS gifting amount) four months later. In the first wave, we conducted an online survey of KakaoTalk users. For the data collection, we worked with a market research firm that has a database of more than 350,000 panel members. The firm randomly selected members from its panel, each of whom was invited to participate in our online survey. To verify that our respondents were actual users of the SNS, at the beginning of the survey, we asked them to enter their KakaoTalk ID. We also checked whether the respondents had used KakaoTalk at least once for gifting. Only users of KakaoTalk that had given gifts at least once via the SNS were considered valid survey participants. We offered US\$5 worth of digital gifts to all respondents as an incentive to participate in the survey. The survey was conducted over a period of one week.

From the first wave of data collection, we obtained 300 valid survey responses. We assessed nonresponse bias by comparing early and late respondents (Armstrong and Overton 1977), that is, those who replied during the first two days and those who replied during the last two days. T -tests performed on the groups showed that the early and late respondents did not differ significantly in terms of age, gender, daily KakaoTalk usage, number of KakaoTalk friends, SNS gifting experience, and KakaoTalk tenure. Thus, nonresponse bias was not likely to be a concern in our study. We also conducted interviews with a manager and a few members of KakaoTalk to develop a deeper understanding of the phenomenon.

Four months later, we conducted the second wave of data collection over three weeks by reaching out to the same 300 respondents. We contacted them via KakaoTalk and asked them to send us a screenshot of their SNS gifting statistics. KakaoTalk provides each user a menu showing the statistics of their SNS gifting (e.g., gifting date and gift name). Thus, the respondents could capture the screenshot showing their gifting statistics for the last four months and send it to us via KakaoTalk. From the gifting date information, we could determine the DV, i.e., the frequency of SNS gifting, for the last four months. From the gift name, we could also determine the gifting amount by checking its price in the KakaoTalk gift store. In this wave, we offered US\$5 worth of digital gifts to all respondents as an incentive to participate.

From the second wave of data collection, we obtained 203 valid responses, as shown in Table 4. We compared the respondents from the first wave of data collection with the subset from the second wave of data collection. T -tests showed that the two respondent groups

Table 4. Descriptive Statistics of Respondents

Demographic variable	Frequency	Percentage
Gender		
Female	112	55.17
Male	91	44.83
Age (years)		
(mean = 27.58, s.d. = 6.98)		
15–19	8	3.90
20–29	142	69.95
30–39	41	20.20
>40	12	5.91
Profession		
High school student	2	0.99
Undergraduate/graduate student	113	55.67
Professional	78	38.42
Housewife	5	2.46
Others	5	2.46
Number of SNS (KakaoTalk) friends	Mean = 228.17, s.d. = 139.03	
Frequency of SNS (KakaoTalk) use (times/day)	Mean = 21.59, s.d. = 26.15	
Tenure of SNS (KakaoTalk) use (months)	Mean = 26.65, s.d. = 8.72	
Prior SNS (KakaoTalk) gifting experience ^a (times/month)	Mean = 0.28, s.d. = 0.34	
Frequency of SNS (KakaoTalk) gifting ^b (times)	Mean = 1.65, s.d. = 1.74	

^aDistribution of total prior SNS gifting experience through KakaoTalk before the first wave of data collection (mean = 6.98 times, standard deviation = 9.55) [frequency/percentage]: 1–3 [94/46.31%], 4–6 [42/20.69%], 7–9 [9/4.43%], 10–12 [27/13.30%], 13–15 [8/3.94%], 16–18 [2/0.98%], 19–21 [14/6.90%], more than 21 [7/3.45%].

^bDistribution of SNS gifting frequency during the second wave of data collection [Frequency/Percentage]: 0 [54/26.6%], 1 [65/31.5%], 2 [44/21.7%], 3 [17/8.4%], 4 [7/3.4%], 5 [8/3.9%], more than 5 [9/4.5%].

did not differ significantly in terms of age, frequency of KakaoTalk use, number of KakaoTalk friends, prior SNS gifting experience, and tenure in KakaoTalk. Thus, we used the 203 responses for our empirical analysis. Because the demographics of all users of SNS gifting through KakaoTalk are not available, we checked the representativeness of our sample during our interview with a marketing manager at KakaoTalk. The manager noted that the main users of SNS gifting via KakaoTalk are young people in their 20s and 30s, who are either undergraduate/graduate students or profes-

sionals. Descriptive statistics of our respondents (see Table 4) show that most of them are in their 20s (69.95%) and 30s (20.20%), and are undergraduate/graduate students (55.67%) or professionals (38.42%). The average number of friends registered for each participant in KakaoTalk was 228.17. The respondents had been using KakaoTalk for 26.65 months on average and had an average of 0.28 gifting instances per month through KakaoTalk.

Table 5 shows the distribution of the types of gifts that our respondents gave through KakaoTalk in the four-month period between waves 1 and 2 of data collection. The two most popular gifts in our study were a digital voucher for a drink (mean price = US\$3.44) at popular brands such as Starbucks (55.3%) and a digital voucher for a snack (mean price = US\$4.44) at popular brands such as Krispy Kreme (12.2%). Among the 336 gifts given in that period, only eight gifts were physical goods (2.4%). The remaining were digital gifts (i.e., digital vouchers) (97.6%). Furthermore, 87% of the gifts given in the data collection period were targeted at different recipients, i.e., 13% of the gifts were for repeat recipients from the same gift giver.

Data Analysis and Results

We used SmartPLS 2.0 for our data analysis. We chose the partial least squares (PLS) method because it is especially suitable for analyzing multistage models such as ours and when the measures for constructs are obtained from archival data (Gefen et al. 2011), i.e., several variables including the DV in our study are extracted from the archival data of KakaoTalk.

Instrument Validation

We conducted an exploratory factor analysis involving all multi-item measures using principal component analysis with varimax rotation (see Appendix A.2). We identified nine factors with eigenvalues greater than 1.0. When compared across factors, all of the items loaded highest onto their own construct indicating convergent validity. Together, all nine factors explained 79.08% of the total variance. As for confirmatory factor analysis, convergent validity can be established by examining the standardized path loading, composite

Table 5. Distribution of Gifts Sent by the Respondents

Gift (brand examples)	Type	Mean (\$)	S.D.	Frequency	Percentage (%)
Drink (Starbucks, Coffee Bean)	Digital	3.44	1.42	186	55.3
Snack (Krispy Kreme, 7-Eleven)	Digital	4.44	4.34	41	12.2
Cake (Baskin Robbins, Coffee Bean)	Digital	15.31	5.39	39	11.6
Gift voucher (Olive Young, Aritaum)	Digital	8.51	9.59	31	9.2
Movie ticket and snacks (CGV)	Digital	11.44	3.36	11	3.3
Ice cream (Baskin Robbins, Cold Stone)	Digital	11.74	5.83	9	2.7
Drink set (Dunkin Donuts, Coffee Bean)	Digital	7.76	4.91	8	2.4
Meal (Bonjuk, Dintaifung)	Digital	8.35	2.41	3	0.9
Others (Vitamin, Hand cream, Shoes)	Physical	13.50	12.39	8	2.4
Total		9.39	5.52	336	100.0

Table 6. Results of Convergent Validity Testing

Construct	Std. loading of each item	AVE	CR	Cronbach's α
Perceived worth (WRT)	0.85, 0.92, 0.94, 0.84	0.79	0.94	0.91
Gift reciprocity (RCP)	0.93, 0.94, 0.94, 0.94	0.87	0.97	0.95
Symbolic representation (SRP)	0.84, 0.89, 0.87, 0.74	0.70	0.90	0.86
Pleasure (PLS)	0.87, 0.83, 0.87, 0.89	0.75	0.92	0.89
Relationship support (RSP)	0.84, 0.92, 0.94, 0.92	0.82	0.95	0.93
Convenience of gift purchase (CNV)	0.87, 0.86, 0.90, 0.90	0.78	0.93	0.91
Immediacy of gift sending (IMD)	0.83, 0.87, 0.93, 0.83	0.75	0.92	0.89
Impersonality (IMP)	0.88, 0.91, 0.87, 0.84	0.76	0.93	0.90
Perceived price (PRC)	0.96, 0.83, 0.78, 0.68	0.67	0.89	0.88

reliability (CR), Cronbach's α , and the average variance extracted (AVE) of the constructs (Gefen et al. 2011). As shown in Table 6, the standardized path loadings were all significant and greater than 0.7. The AVE for each construct was greater than 0.5. The CR and Cronbach's α values for all constructs exceeded 0.7. The convergent validity of the measurement instrument was thus supported.

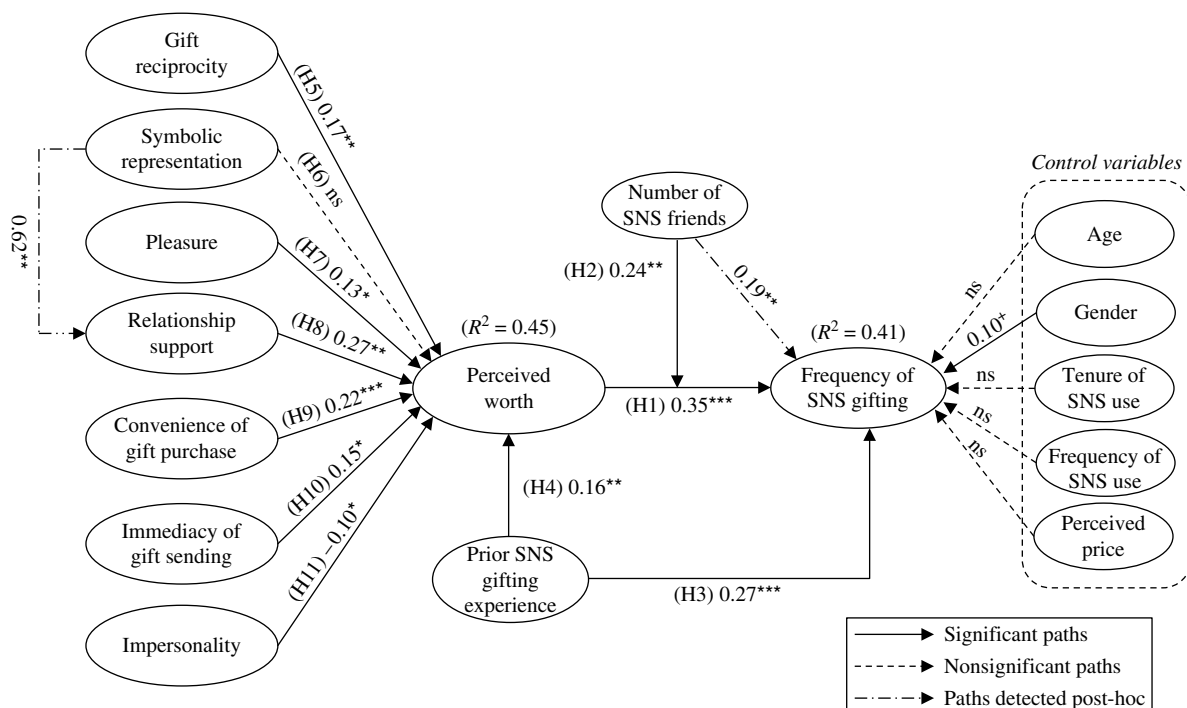
We assessed the discriminant validity of the measurement model by comparing the square root AVE for each construct with the correlations between the particular construct and other constructs. As shown in Appendix A.3, the square root of AVE for each construct (diagonal term) exceeded the correlations between the construct and other constructs (off-diagonal terms). All correlation coefficients between the IVs are less than 0.6 except for one correlation between *symbolic representation* and *relationship support* (correlation coefficient = 0.61). How-

ever, our test for multicollinearity showed that this may not be a concern because the variance inflation factors (VIFs) were less than 3 (Diamantopoulos and Sigauw 2006). Hence, discriminant validity of the measures was established. We further tested our data for common method variance by using Harman's single-factor test (Podsakoff et al. 2003). The test showed that the first factor accounted for 26.46% of total variance. The principal component analysis with varimax rotation further revealed that each of the principal components explained an almost equal amount of the total variance, ranging from 8.08% to 10.04%. Therefore, common method bias is unlikely to be a concern in this study.

Hypotheses Testing

After establishing the validity of the measurement model, we tested the structural model of Figure 3. The results (shown in Figure 4) indicate that *perceived worth*

Figure 4. Hypotheses Test Results



* $p < 0.1$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$; ns, insignificant at the 0.1 level.

(H1) and *prior SNS gifting experience* (H3) positively affect the *frequency of SNS gifting*. The results also show that *gift reciprocity* (H5), *pleasure* (H7), *relationship support* (H8), *convenience of gift purchase* (H9), *immediacy of gift sending* (H10), and *impersonality* (H11) together with *prior SNS gifting experience* (H4) significantly impact *perceived worth*. However, we did not find an effect of *symbolic representation* on *perceived worth*, i.e., H6 was not supported. We conducted a moderated regression analysis to test the interaction effect of *the number of SNS friends* following the steps in Carte and Russell (2003). Table 7 shows the results for the three models: Model I with the control variables, Model II by adding two predictors (*perceived worth* and *prior SNS gifting experience*) and the moderator (*number of SNS friends*), and Model III by adding the standardized interaction term. The results show the moderating effect of the *number of SNS friends* (H2) on the relationship between *perceived worth* and *frequency of SNS gifting*. Thus, H2 was supported. Additionally, the number of SNS friends directly impacts the DV. Overall, the model had an explanatory power (R^2) of 41% for the DV and 45% for *perceived worth*. As for the control variables, we did not find an effect of age, tenure in the SNS, frequency of SNS use, and *perceived price* on the *frequency of SNS gifting*, while gender had a marginally significant effect (at $p < 0.1$).

We conducted four posthoc tests to better understand our results: (1) a mediation test of *perceived worth* for the cost and benefit antecedents, (2) testing the model with *SNS gifting amount* as the outcome, (3) testing alternative models for comparison, and (4) testing if the number of SNS friends has a quadratic effect on the frequency of SNS gifting. From the first test we found that the proposed cost and benefit-related antecedents do not have direct effects on the frequency of SNS gifting

in the presence of *perceived worth*. In other words, *perceived worth* mediates the effects of these antecedents on the frequency of SNS gifting. This finding adds to the literature (e.g., Skageby 2010, Ward and Broniarczyk 2011, Wolfinbarger and Yale 1993), by demonstrating the salience of the *perceived worth* assessment in determining SNS gifting behavior.

For the second test, we found essentially similar direct and moderating effects of the IVs and control variables on the SNS gifting amount as we had for the frequency of SNS gifting (see Table 7). The only exception was that the number of SNS friends positively influences the frequency of SNS gifting, but not the SNS gifting amount. This could be because the likelihood (frequency) of SNS gifting increases if there are more friends to give gifts to but the amount of the gift depends on the relationship with each individual recipient, which may not become stronger if the number of SNS friends increases. Other than that, we found similar mediating effects of *perceived worth* on the relationships between the cost and benefit antecedents and the SNS gifting amount as we had for the SNS gifting frequency DV. These results indicate that the frequency and amount of SNS gifting have similar antecedents (except the number of SNS friends) that could be influenced in similar ways to generate higher revenue for the SNS provider from SNS gifting services.

Third, we tested two models: (a) a model with only the prior constructs from the gift giving literature (see Figure (a) in Appendix A.4), and (b) a model with only the new constructs (see Figure (b) in Appendix A.4). We had identified four prior benefit factors from the gift-giving literature, i.e., gift reciprocity, symbolic representation, pleasure, and relationship support. Appendix A.4(a) shows that only *relationship support* has

Table 7. Moderated Regression Analysis

Variables	DV: Frequency of SNS gifting			Posthoc: SNS gifting amount		
	Model I	Model II	Model III	Model I	Model II	Model III
Control						
Age	ns	ns	ns	ns	ns	ns
Gender	0.13 ⁺	0.12 ⁺	0.10 ⁺	0.16 ^{**}	0.13 ⁺	0.11 ⁺
Tenure of SNS use	0.17 ⁺	ns	ns	0.12 ⁺	ns	ns
Frequency of SNS use	ns	ns	ns	ns	ns	ns
Perceived price	ns	ns	ns	ns	ns	ns
Predictor						
Perceived worth		0.32 ^{***}	0.35 ^{***}		0.20 ^{***}	0.24 ^{***}
Prior SNS gifting experience		0.26 ^{***}	0.27 ^{***}		0.39 ^{**}	0.39 [*]
Moderator						
Number of SNS friends		0.25 ^{**}	0.19 ^{**}		0.19 ⁺	ns
Interaction term						
Perceived worth × Number of SNS friends			0.24 ^{**}			0.23 ⁺
R^2	0.057	0.362	0.413	0.048	0.324	0.372
ΔR^2			0.051			0.048
F			16.796 ^{**}			14.752 ^{**}

⁺ $p < 0.1$; ^{*} $p < 0.05$; ^{**} $p < 0.01$; ^{***} $p < 0.001$; ns, insignificant at the 0.05 level.

a positive impact on the frequency of SNS gifting, explaining 15% of its variance. By contrast, this study identified six new constructs (convenience of gift purchase, immediacy of gift sending, impersonality, perceived worth, number of SNS friends, and prior SNS gifting experience) that have not been tested in the previous gift-giving literature. Appendix A.4(b) shows that these new constructs have significant effects on the frequency of SNS gifting directly or indirectly, explaining 41% of its variance. The comparison between the two alternative models demonstrates the validity and contributions of the new constructs and our proposed research model (Figure 4) of SNS gifting.

Fourth, we tested whether the number of SNS friends had a quadratic effect on the frequency of SNS gifting. This was done to check if the frequency of SNS gifting decreases after a while as the number of SNS friends increases—if indifference or high costs of gifts are perceived. However, our results show that there is no significant quadratic effect, thus ruling out these explanations.

Discussion and Implications

Discussion of Findings

There are several important findings from this study. A notable result is that *perceived worth* and *prior SNS gifting experience* are key determinants of SNS gifting behavior. Thus, both the reasoning and habit routes invoke SNS gifting behavior. Another salient finding is that the *number of SNS friends* moderates the relationship between *perceived worth* and SNS gifting behavior and also has a direct influence on SNS gifting frequency. Compared to online e-commerce gifting, SNS gifting requires both givers and recipients to be members of the SNS. As seen from our results, the number of SNS friends has a dual positive influence on members' SNS gifting behavior. Finally, the results show that a nonmonetary cost (*impersonality*) and five factors representing normative (*gift reciprocity*), hedonic (*pleasure*), relational (*relationship support*), and functional (*convenience of gift purchase* and *immediacy of gift sending*) benefits influence SNS gifting through the assessment of perceived worth. Among all of the antecedents, five factors (*impersonality*, *convenience of gift purchase*, *immediacy of gift sending*, *number of SNS friends*, and *prior SNS gifting experience*) are specific attributes of SNS gifting that influence gifting behavior in this context.

Contrary to our hypothesis H6, *symbolic representation* did not influence *perceived worth*. Also, our posthoc analysis did not find a direct effect of symbolic representation on SNS gifting behavior. This could be because communication via SNS lacks social presence (Tu and McIsaac 2002), which may compromise the effect of symbolic communication on SNS gifting. Another possible reason for this result is that the effect of *symbolic representation* on perceived worth could be mediated by *relationship support*. Symbolic communica-

tion through gift giving helps givers build and maintain relationships with the recipients (Cheal 1987, Ruth et al. 1999). Symbolic representation through SNS gifting could therefore influence relationship support by helping the giver form, maintain, or enhance interpersonal relationships with others in the target SNS. Indeed, a mediation test showed that *relationship support* fully mediates the effect of *symbolic representation* on *perceived worth* (z -value = 5.45).

Limitations and Future Research

The results of this study should be interpreted in light of its limitations. First, we collected the data from a single SNS, KakaoTalk, with a particular form of gifting service wherein the results could be generalized to similar SNS such as LINE. It would be useful to test the robustness of the results by replicating the study across other SNS that support gifting or even third parties (e.g., Twitgift¹⁴) that build on SNS such as Twitter to offer gifting services. Also, we conducted the study with respondents from South Korea. Thus, the results of our study need to be generalized carefully to other countries where the IT infrastructure, culture, and economic conditions may differ. Second, this study focused on repeated users of SNS gifting. Future research can examine potential users of SNS gifting and compare the antecedents of their future intention to gift with those of repeated users of SNS gifting. Such research can also try to eliminate possible reflection bias and self-selection bias. Third, this study explained gifting through SNS from the giver's perspective and in aggregate. Future research could adopt the recipient's or a dyadic view to examine SNS gifting behavior. For example, the degree of closeness and geographic proximity between the giver and recipient could affect SNS gifting. Future work could also examine how the predictive power of the model changes for different contexts of SNS and interpersonal relationships, e.g., those people who cannot meet offline may be more willing to send digital gifts online via SNS.

Fourth, we used social exchange theory to identify the antecedents of SNS gifting. We cannot rule out the possibility that SNS gifting is a function of other variables that our research model did not consider. For example, there are two aspects of gift giving (i.e., receiving a gift in return from the gift recipient, and giving a gift in return to a person from whom a gift was received before). This study considered only the reciprocity benefit, i.e., receiving a gift in return. Future research could examine the obligation benefit, i.e., giving a gift in return and thereby discharging the obligation. In addition, social norms (Kim et al. 2012), colleague opinions (Thompson et al. 1991), herding mechanisms (Sun 2013), or social belonging desire (Wellman et al. 2002) may affect an individual's perception or behavior. Future studies could examine the effects of such factors on SNS gifting.

Last, this study examined giving mainly digital gifts through SNS, though people can also send physical goods through different delivery channels, i.e., print at home, mail, email, and SNS, as can be seen in Amazon.com. Future studies can consider these different delivery channels and gift types to understand how the gifting antecedents differ in these contexts. It could also be worthwhile to examine the salience of the antecedents for gift giving across different channels, i.e., traditional face-to-face and SNS.

Implications for Research

This study offers several important research contributions. First, it adds to the literature related to revenue generation in SNS. SNS have employed traditional revenue sources, e.g., membership fees and advertising, and new sources such as selling digital items (Kim et al. 2012). However, the sustainability of SNS is often hindered by the lack of suitable revenue models or the understanding of how to make the models work. Thus, knowledge of how to leverage different sources of revenue is essential for the survival of SNS (Animesh et al. 2011, Wasko et al. 2011). As a result, prior studies have called for research on new revenue sources for SNS and their underlying mechanisms (Dewan and Ramaprasad 2014, Kim et al. 2012, Roquilly 2011, Skageby 2010). This study contributes by explaining how a revenue model based on the sales of digital gifts can work for SNS, from a giver's perspective. Specifically, the findings explicate how SNS members assess and decide to undertake SNS gifting.

Second, this study addresses a gap in the current literature on SNS gifting and gift giving in general where there is a lack of theoretically grounded and empirically tested models to understand gifting behavior. With the increasing trend and issues involved in SNS gifting, a few studies have begun to explore this phenomenon (e.g., Pearson 2007; Skageby 2007, 2010), with objectives that differ from ours. In her conceptual study, Pearson (2007) explored the types of gift exchange among members of a virtual community that supports blogging and journals. Skageby (2007) derived six dimensions to classify online gifting mechanisms based on an ethnographic study. Subsequent work built on this study to conceptually analyze social behavior in online network communities from a gift-giving perspective (Skageby 2010). With a dominance of conceptual studies in this area and the very broad conceptualization of gifting as knowledge contribution in these prior studies, this study contributes by proposing a theoretically grounded and empirically validated model to explain gifting antecedents.

Even in the literature on off-line gift giving, theoretically grounded and empirically tested models of the antecedents of gifting behavior are largely absent. Our study's framework and model allow us to cumulate findings from different studies that each identify

a subset of gifting motivations. Building on previous research, this study derives the factors that directly and indirectly affect people's SNS gifting behavior. Furthermore, in addition to the traditional gifting antecedents across four categories (Belk 1979, Ruth et al. 1999, Wolfinbarger and Yale 1993), our study identified five antecedents that are salient in the SNS context, i.e., *convenience of gift purchase*, *immediacy of gift sending*, *impersonality*, *number of SNS friends*, and *prior SNS gifting experience*, yet have received scant attention in the gift-giving literature. Our proposed model of SNS gifting behavior shows a clear contribution in this regard (see Appendix A.4) and explicates this new phenomenon that represents an innovation in the way gifting is carried out.

Third, this study has implications for social exchange theory (Blau 1964, Molm et al. 2000) by highlighting the value of the theory as an overarching theoretical lens for understanding gifting in general and SNS gifting in particular. Although gift giving is a form of social exchange (Belk 1979), little research has paid attention to the social exchange nature of gift giving, especially the importance of *perceived worth* in determining gift-giving behavior. The findings of this study demonstrate that perceived worth is the main determinant of SNS gifting behavior in accord with social exchange principles. This study also shows that the motivators in various categories (functional as well as social, hedonic, symbolic, and normative) and costs affect SNS gifting indirectly through the perception of net worth.

Fourth, this study contributes by explaining SNS gifting behavior through both the reasoned action (with perceived worth) and habituation (with prior SNS gifting experience) routes by making use of both subjective and objective data collected over time from the SNS. When users are not familiar with gifting at an SNS site, they may decide on and perform SNS gifting based on careful deliberation and assessment of the net worth of SNS gifting. As users become familiar with SNS gifting through repeated experiences, they perform it through automated cognitive processing with little cognitive effort. Our findings therefore explain the significance of both reason-based (i.e., perceived worth) and automated (i.e., prior SNS gifting experience) cognitive processing in SNS gifting. Furthermore, the habit construct (prior experience) also influences the reason-based construct (perceived worth) as hypothesized.

Overall, this study identified new antecedents (i.e., *perceived worth* and five antecedents corresponding to SNS gifting attributes) that were previously not examined in the gift-giving literature. Social exchange theory helped us generate insights about how the antecedents across social (relationship support), hedonic (pleasure), symbolic (symbolic representation), normative (gift

reciprocity), and functional (convenience of gift purchase, immediacy of gift sending) categories are assessed through the *perceived worth* to lead to gifting through SNS. Especially, the proposed theoretical framework in Figure 2, deriving from social exchange theory, the gift-giving literature, and unique SNS gifting attributes, allowed us to develop a theoretical model that performs well in explaining this new form of gifting behavior.

Implications for Practice

For practitioners, our results have important implications for revenue generation in SNS through offering such novel gifting services. In KakaoTalk, members can purchase a specific digital gift with a low price (e.g., a US\$2.75 digital voucher for a cup of Starbucks Caffè Latte) from the gift store electronically and send it via the SNS to people registered on their friend list conveniently and immediately. Partnering with brands that have many branches where gift recipients can redeem their digital vouchers through their smartphones also facilitates the gift delivery. Thus, the findings of this study can be used by other SNS to build similar features to leverage the sale of digital gifts as a revenue source, through this new form of gifting that we refer to as microgifting. Here, we find that both the *perceived worth* and *prior SNS gifting experience* drive members' SNS gifting directly. Furthermore, the *number of SNS friends* increases the *frequency of SNS gifting* and strengthens the effect of *perceived worth* on SNS gifting behaviors.

The findings about the SNS-related attributes, i.e., *number of SNS friends*, *prior SNS gifting experience*, and a control variable (gender), suggest that SNS providers should pay more attention to females than males, encourage members to recruit more SNS friends,¹⁵ and enhance members' SNS gifting experience to promote gifting behavior. Among these antecedents, the number of SNS friends and the prior experience with SNS gifting have stronger effects (both direct and indirect or moderated) such that these would be salient factors for providers to focus on. Additionally, the strong effect of *perceived worth* on SNS gifting suggests that SNS providers carefully consider how members perceive the overall worth of their gifting services while designing them. Our results also indicate that to increase the perceived worth of SNS gifting, SNS providers should enhance its diverse benefits. Specifically, hedonic (*pleasure*), social (*relationship support*), functional (*convenience of gift purchase* and *immediacy of gift sending*), and normative (*gift reciprocity*) benefits increase perceived worth directly, while symbolic (*symbolic representation*) benefit increases the worth indirectly (through relationship support). Among these, relationship support and convenience are stronger determinants of perceived worth for providers to initially focus on. Thus, SNS providers

can manage the different types of benefits as a way to increase perceived worth.

To enhance its functional benefits, SNS providers could build on the characteristics of SNS gifting that is not restricted by time and space and does not require several prepurchase (e.g., visiting physical gift stores) and postpurchase (e.g., gift giving in person) steps. For greater convenience of gift purchase and the immediacy of gift sending, SNS features should be easy to use in terms of navigation and gift search, and the entire SNS gifting process should be efficient in selection, payment, and delivery. This poses relevant questions on how these steps can be personalized and customized as a way to reduce gifting effort, e.g., through displaying digital gifts that fit the giver's preference profile, and auto filling of giver's account information. Furthermore, best practices from e-commerce sites on product presentation and sales can be adopted here.

As a defining feature of SNS, providers should devise ways to enhance the social benefit (relationship support) from SNS gifting to encourage such behavior. Having information about the friends of members and their preferences, SNS providers can cater to predominantly ordinary and some ritual (for special events) based gifting as well. This includes providing reminders to the giver for special events (e.g., birthdays) as well as detecting more ordinary situations (e.g., when a member thanks a friend for a favor) to suggest gifting. The gifts suggested could also depend on the preferences and closeness of the friend, to enhance relationship support. To increase the symbolic (that also influences relationship support) and hedonic benefits perceived by the giver, SNS providers can consider developing features (e.g., emoticons) that enable a recipient to communicate emotions and symbolic messages to the giver in return. For symbolic communication, SNS providers can develop richer media services, e.g., video messaging services, as part of SNS gifting.

The findings related to the convenience of gift purchase have additional implications for SNS providers to manage two-sided markets on SNS platforms (Tiwana et al. 2010). KakaoTalk represents a two-sided market (i.e., managing brand companies providing products or services to the SNS on one side, and managing SNS users on the other side). By increasing the number of brand companies providing products or services to the online gift shop of the SNS, it becomes more attractive for givers because they can have more choices and convenience in SNS gifting. By increasing the number of users of the SNS, it also becomes more attractive for brand companies to join the gifting market of the SNS. SNS providers therefore need to manage both brand companies and SNS users to leverage the sale of gifts as a revenue source. In this regard, microgifting is a novel approach to promote gifting among SNS users that also benefits firms through added revenue.

Conclusion

Gifting services are being offered by several SNS providers as a new revenue model based on friendship in social media, where the traditional revenue sources have been membership fees and advertisements. However, even with a number of failure cases of companies trying to offer such services, there has been a lack of understanding of the antecedents and the decision-making mechanisms underlying SNS gifting behavior. This study serves as an initial attempt to explain how people assess and decide to undertake SNS gifting through this new form of online gifting. A model for SNS gifting was developed building on social exchange theory, the gift-giving literature, and specific SNS gifting attributes. It was tested using both objective and subjective data collected over time from an SNS that has been successful in adopting this new approach, mainly of microgifting through SNS.

The findings of this study highlight the key roles of perceived worth, number of SNS friends, and prior SNS gifting experience in determining SNS gifting. The study further identifies various benefit- and cost-related factors, some of them being unique to the SNS gifting context, that indirectly impact SNS gifting through the assessment of perceived worth. This study thus contributes to research by advancing the theoretical understanding of this new form of gifting and its antecedents. Practically, this study is useful in showing how people decide to undertake SNS gifting and in doing so facilitate this new revenue source to be leveraged by SNS providers.

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Appendix A.1. Survey Instrument

Construct	Item	Wording
Perceived worth	WRT1	Considering the issues involved in gifting via KakaoTalk, the gifting is of good value.
	WRT2	Considering the money I pay for gifting via KakaoTalk, the gifting delivers me good value.
	WRT3	Considering all the monetary and non-monetary costs involved in gifting via KakaoTalk, the gifting is worthwhile.
	WRT4	Overall, there are more benefits than costs in gifting via KakaoTalk.
Gift reciprocity	RCP1	I believe that I will receive some kind of return, if I give gifts via KakaoTalk.
	RCP2	If I give gifts via KakaoTalk, I will get something in return.
	RCP3	When I give gifts via KakaoTalk, I expect to get something back in the future.
	RCP4	I believe my gifting via KakaoTalk will be reciprocated in some way.
Symbolic representation	SRP1	Gifting via KakaoTalk conveys a message or meaning to the recipient.
	SRP2	Gifting via KakaoTalk expresses my emotions toward the recipient.
	SRP3	Gifting via KakaoTalk signifies my relationship with the recipient.
	SRP4	Gifting via KakaoTalk expresses my perception of the recipient.
How do you feel about your gifting via KakaoTalk?		
Pleasure	PLS1	Annoyed _____ Pleased
	PLS2	Unhappy _____ Happy
	PLS3	Unsatisfied _____ Satisfied
	PLS4	Melancholic _____ Contented
Relationship support	RSP1	Gifting via KakaoTalk helps me make friends.
	RSP2	Gifting via KakaoTalk enhances my relationship with the recipient.
	RSP3	Gifting via KakaoTalk enables me to form a better personal bond with the recipient.
	RSP4	Gifting via KakaoTalk brings me in closer relationship with the recipient.
Convenience of gift purchase	CNV1	Purchasing gifts via KakaoTalk saves me time.
	CNV2	Purchasing gifts via KakaoTalk involves little effort.
	CNV3	Purchasing gifts via KakaoTalk is easy for me.
	CNV4	Purchasing gifts via KakaoTalk reduces personal hassle.
Immediacy of gift sending	IMD1	Sending gifts via KakaoTalk is very fast.
	IMD2	KakaoTalk enables me to send gifts without any delay.
	IMD3	KakaoTalk processes the sending of my gifts very quickly.
	IMD4	The recipients of my gifts sent via KakaoTalk know about them instantaneously.
Perceived price	PRC1	I will probably save money buying gifts at other gift stores than at the KakaoTalk gift store.
	PRC2	It may be possible to get a better discount from other gift stores than at the KakaoTalk gift store.
	PRC3	It may be cheaper to buy gifts at other gift stores than at the KakaoTalk gift store.
	PRC4	I may need to pay more for gifts via KakaoTalk than I would at other gift stores.
Impersonality	IMP1	In giving gifts via KakaoTalk, missing the personal touch of giving and receiving gifts bothers me.
	IMP2	In giving gifts via KakaoTalk, I am concerned about missing the excitement of unwrapping gifts.
	IMP3	In giving gifts via KakaoTalk, it bothers me that I am not with the recipients when they get the gifts.
	IMP4	In general, I am concerned that giving gifts via KakaoTalk is too impersonal.

Appendix A.2. Exploratory Factor Analysis Results

	RCP	CNV	WRT	PLS	IMD	RSP	IMP	PRC	SRP
RCP1	0.88	0.01	0.10	0.07	0.00	0.18	0.03	0.19	0.01
RCP2	0.91	0.02	0.11	0.05	0.01	0.16	0.03	0.14	0.04
RCP3	0.93	0.01	0.09	0.03	0.01	0.02	0.04	0.15	0.03
RCP4	0.89	0.02	0.15	0.04	0.01	0.12	0.03	0.19	0.06
CNV1	0.02	0.80	0.17	0.09	0.21	0.01	0.05	0.01	0.19
CNV2	0.04	0.81	0.15	0.05	0.20	0.20	0.03	0.05	0.04
CNV3	0.01	0.85	0.15	0.10	0.23	0.11	0.06	0.04	0.04
CNV4	0.01	0.85	0.16	0.06	0.21	0.03	0.02	0.07	0.05
WRT1	0.09	0.18	0.77	0.12	0.21	0.13	0.09	0.01	0.15
WRT2	0.13	0.16	0.86	0.11	0.11	0.17	0.14	0.03	0.12
WRT3	0.15	0.19	0.87	0.13	0.15	0.16	0.03	0.02	0.09
WRT4	0.16	0.21	0.69	0.19	0.13	0.30	0.01	0.06	0.08
PLS1	0.05	0.04	0.08	0.85	0.14	0.19	0.01	0.03	0.05
PLS2	0.02	0.02	0.06	0.79	0.08	0.14	0.08	0.01	0.28
PLS3	0.03	0.04	0.20	0.83	0.07	0.03	0.11	0.04	0.14
PLS4	0.08	0.10	0.12	0.83	0.04	0.13	0.02	0.06	0.20
IMD1	0.01	0.22	0.02	0.14	0.83	0.01	0.06	0.01	0.15
IMD2	0.05	0.28	0.12	0.07	0.84	0.04	0.00	0.05	0.04
IMD3	0.01	0.22	0.17	0.09	0.88	0.11	0.05	0.01	0.03
IMD4	0.09	0.14	0.25	0.04	0.73	0.12	0.05	0.02	0.19
RSP1	0.11	0.23	0.21	0.17	0.10	0.66	0.11	0.11	0.27
RSP2	0.28	0.06	0.21	0.09	0.09	0.78	0.13	0.15	0.28
RSP3	0.11	0.08	0.19	0.19	0.02	0.85	0.05	0.12	0.25
RSP4	0.18	0.09	0.22	0.18	0.13	0.80	0.04	0.10	0.29
IMP1	0.02	0.05	0.07	0.01	0.03	0.00	0.85	0.03	0.10
IMP2	0.07	0.02	0.10	0.08	0.01	0.00	0.89	0.06	0.02
IMP3	0.02	0.05	0.03	0.00	0.02	0.07	0.88	0.11	0.01
IMP4	0.04	0.09	0.01	0.03	0.07	0.14	0.83	0.01	0.07
PRC1	0.13	0.04	0.16	0.04	0.03	0.11	0.04	0.79	0.15
PRC2	0.14	0.00	0.03	0.00	0.05	0.07	0.00	0.90	0.00
PRC3	0.18	0.00	0.03	0.01	0.04	0.07	0.04	0.89	0.04
PRC4	0.16	0.04	0.01	0.07	0.06	0.08	0.05	0.78	0.07
SRP1	0.02	0.13	0.20	0.19	0.14	0.12	0.06	0.15	0.76
SRP2	0.00	0.00	0.16	0.15	0.15	0.36	0.08	0.02	0.75
SRP3	0.04	0.16	0.09	0.20	0.16	0.31	0.07	0.06	0.74
SRP4	0.12	0.05	0.02	0.19	0.01	0.20	0.06	0.06	0.76
Eigenval.	8.57	4.59	3.48	2.91	2.21	1.73	1.61	1.39	1.02
% of var.	26.45	12.76	9.69	8.08	6.13	4.81	4.47	3.87	2.82
Cum. %	26.45	39.21	48.90	56.98	63.11	67.92	72.39	76.26	79.08

Notes. RCP, Gift reciprocity; CNV, convenience of gift purchase; WRT, perceived worth; PLS, pleasure; IMD, immediacy of gift sending; RSP, relationship support; IMP, impersonality; PRC, perceived price; SRP, symbolic representation.

Appendix A.3. Correlations Between Variables

	Mean (S.D.)	Age	Gender	Tenure of SNS use	Freq. of SNS use	Perceived price	Gift reciprocity	Symbolic representation	Pleasure
Gender	0.56 (0.51)	-0.12	—						
Tenure of SNS use	26.65 (8.71)	-0.12	0.06	—					
Freq. of SNS use	21.59 (26.15)	-0.21**	0.00	0.05	—				
Perceived price	3.75 (1.27)	0.15*	-0.03	0.01	-0.01	0.82			
Gift reciprocity	3.10 (1.38)	0.00	-0.07	0.02	-0.05	0.36**	0.93		
Symbolic representation	5.44 (0.89)	0.03	0.06	0.00	0.01	0.03	0.12	0.84	
Pleasure	5.39 (0.97)	-0.05	0.22**	0.08	0.18**	-0.03	0.13	0.45**	0.87
Relationship support	5.19 (1.06)	0.03	-0.01	0.08	0.00	0.24**	0.36**	0.61**	0.38**
Convenience of gift purchase	5.46 (1.14)	-0.10	0.09	0.00	0.05	0.05	0.05	0.26**	0.18**
Immediacy of gift sending	5.75 (1.12)	-0.09	0.08	0.09	0.15*	0.00	0.03	0.31**	0.24**
Impersonality	3.65 (1.45)	-0.05	0.00	-0.07	0.06	0.06	0.05	-0.15*	0.00
Prior SNS gifting experience	0.28 (0.34)	-0.02	0.11*	-0.18**	-0.07	-0.08	-0.07	0.10	0.11*
Number of SNS friends	228.17 (139.03)	-0.15*	-0.10	0.13	0.03	-0.02	0.07	-0.01	0.05
Perceived worth	4.48 (1.05)	0.00	0.00	0.07	0.05**	0.09	0.29**	0.38**	0.35**
Freq. of SNS gifting	1.65 (1.75)	-0.04	0.14*	0.05	0.00	-0.02	0.09	0.19**	0.17*

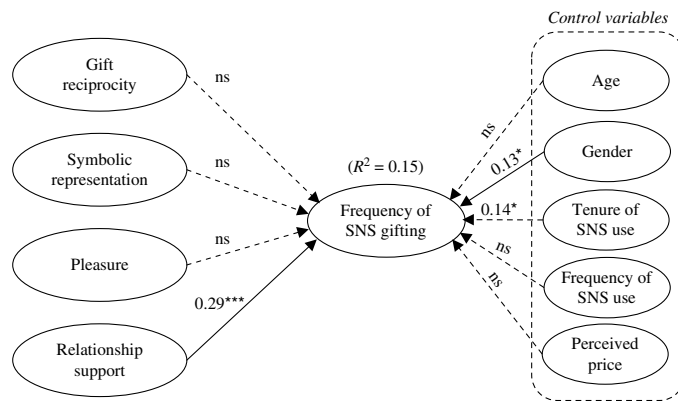
Appendix A.3. (Continued)

	Relationship support	Convenience of gift purchase	Immediacy of gift sending	Impersonality	Prior SNS gifting experience	Number of SNS friends	Perceived worth	Freq. of SNS gifting
Gender								
Tenure of KakaoTalk use								
Freq. of SNS use								
Perceived price								
Gift reciprocity								
Symbolic representation								
Pleasure								
Relationship support	<i>0.91</i>							
Convenience of gift purchase	0.30**	<i>0.88</i>						
Immediacy of gift sending	0.27**	0.51**	<i>0.87</i>					
Impersonality	-0.15*	0.02	-0.04	<i>0.87</i>				
Prior SNS gifting experience	0.17*	0.11*	0.11*	-0.07	—			
Number of SNS friends	0.09	0.20**	0.13	-0.03	0.00	—		
Perceived worth	0.53**	0.43**	0.39**	-0.14*	0.23**	0.23	<i>0.89</i>	
Freq. of SNS gifting	0.30**	0.24**	0.22**	-0.07	0.29**	0.31**	0.46**	—

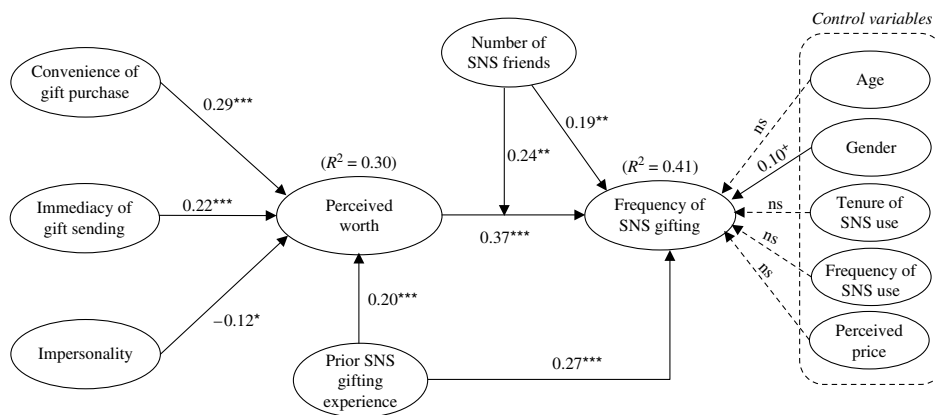
Note. Leading diagonal in italics shows the squared root of AVE of each construct (* $p < 0.05$; ** $p < 0.01$).

Appendix A.4. Testing of Alternative Models

(a) Testing a model with only the prior constructs from the gift giving literature



(b) Testing a model with only the new constructs



Endnotes

- ¹<http://unitymarketingonline.com/shop/buy-luxury-research-reports/gifting-report/>.
- ²<http://www.kakao.com/services/8>.
- ³<http://line.me/en/>.
- ⁴<http://www.businessinsider.sg/kakao-talk-2014-3/#.U05XnmvSyCk>.
- ⁵<http://allthingsd.com/20130906/gift-giving-service-wantful-shuts-down-suddenly/>.
- ⁶<http://techcrunch.com/2014/07/29/an-obituary-for-facebook-gifts/>.
- ⁷The ritual aspect of norms is not considered relevant in our study as it has been found to be related to reciprocity norms (Goodwin et al. 1990, Davis 1973) that are captured in our model. Also, SNS gifting is seen to occur more often for ordinary situations, e.g., to thank a friend for a favor (related to reciprocity), than for special occasions (rituals).
- ⁸The other outcome of interest to SNS providers in terms of gifting revenues is SNS gifting amount. However, this is difficult to assess in aggregate and depends on factors largely outside the control of SNS providers, such as the giver's inherent generosity or the number of close friends in the SNS. We collected data on aggregate SNS gifting amount—but we do not include the construct in our model because of the reasons mentioned above. Instead, we used SNS gifting amount as the outcome variable for a robustness check in our posthoc analyses.
- ⁹<http://www.korea-marketing.com/kakaotalk-mobile-app-case-study/>.
- ¹⁰<http://www.technomaria.com/2014/12/11/kakaotalk-connect-better-across-the-globe/>.
- ¹¹<http://www.asiatoday.co.kr/view.php?key=20151231010021300>.
- ¹²http://news.hankyung.com/nas_photo/201407/AA.8844741.4.jpg.
- ¹³<http://www.forbes.com/sites/ryanmac/2014/09/24/mobile-master-kakaotalk-creator-becomes-one-of-south-koreas-richest-billionaires>.
- ¹⁴http://www.twitgift.me/?page_id=201.
- ¹⁵With a number of research and practitioner articles on this topic, we do not elaborate on how the recruitment of SNS friends can be encouraged. Rather, we focus on the implications that are directly related to offering SNS gifting services.

References

- Aarts H, Verplanken B, Knippenberg AV (1998) Predicting behavior from actions in the past: Repeated decision makings or a matter of habit? *J. Appl. Soc. Psych.* 28(15):1355–1374.
- Ajzen I (1991) The theory of planned behavior. *Org. Behav. Human Decision Processes* 50(2):179–211.
- Ajzen I (2002) Residual effects of past on later behavior: Habituation and reasoned action perspectives. *Personality Soc. Psych. Rev.* 6(2):107–122.
- Animesh A, Pinsonneault A, Yang S, Oh W (2011) An odyssey into virtual worlds: Exploring the impacts of technological and spatial environments on intention to purchase virtual products. *MIS Quart.* 35(3):789–810.
- Armstrong JS, Overton TS (1977) Estimating nonresponse bias in mail surveys. *J. Marketing Res.* 14(3):396–402.
- Bagozzi RP (1975) Marketing as exchange. *J. Marketing* 39(4):32–39.
- Beatty SE, Kahle LR, Homer P (1991) Personal values and gift-giving behaviors: A study across cultures. *J. Bus. Res.* 22(2):149–157.
- Belk RW (1979) Gift-giving behavior. Sheth J, ed. *Research in Marketing* (JAI Press, Greenwich, CT), 95–126.
- Berking H (1999) *Sociology of Giving* (Sage, London).
- Berry LL, Seiders K, Grewal D (2002) Understanding service convenience. *J. Marketing* 66(3):1–17.
- Blau PM (1964) *Exchange and Power in Social Life* (John Wiley, New York).
- Bowlby J (1969) *Attachment and Loss* (Hogarth Press, London).
- Bozinoff L (1982) A script theoretic approach to information processing: An energy conservation application. *Adv. Consumer Res.* 9(1):481–486.
- Carte T, Russell CJ (2003) In pursuit of moderation: Nine common errors and their solutions. *MIS Quart.* 27(3):479–501.
- Chakrabarti R, Berthon P (2012) Gift giving and social emotions: Experience as content. *J. Public Affairs* 12(2):154–161.
- Cheal D (1987) Showing them you love them: Gift giving and the dialectic of intimacy. *Sociol. Rev.* 35(1):150–169.
- Cook KS, Rice E (2006) Social exchange theory. DeLamater J, ed. *The Handbook of Social Psychology* (Springer, New York), 53–76.
- Davis J (1973) Forms and norms: The economy of social relations. *Man* 8(2):159–176.
- Dewan S, Ramaprasad J (2014) Social media, traditional media, and music sales. *MIS Quart.* 38(1):101–121.
- Diamantopoulos A, Sigauw JA (2006) Formative versus reflective indicators in organizational measure development: A comparison and empirical illustration. *British J. Management* 17(5): 263–282.
- Diener E, Seligman ME (2002) Very happy people. *Psych. Sci.* 13(1): 81–84.
- Emerson RM (1981) Social exchange theory. Rosenberg M, Turner R, eds. *Social Psychology: Sociological Perspectives* (Basic Books, New York), 30–65.
- Fulk J, Flanagin A, Kalman M, Monge PR, Ryan T (1996) Connective and communal public goods in interactive communication systems. *Comm. Theory* 6(1):60–87.
- Gefen D, Rigdon E, Straub D (2011) An update and extension to SEM guidelines for administrative and social science research. *MIS Quart.* 35(2):3–14.
- Giesler M (2006) Consumer gift system. *J. Consumer Res.* 33(2): 283–290.
- Goodwin C, Smith KL, Spiggle S (1990) Gift giving: Consumer motivation and the gift purchase process. *Adv. Consumer Res.* 17: 690–698.
- Hall H (2001) Social exchange for knowledge exchange. *Internat. Conf. Managing Knowledge, Conversations and Critique*, Univ. Leicester Management Centre, 10–11.
- Holbrook MB, Chestnut RW, Oliva TA, Greenleaf EA (1984) Play as a consumption experience: The roles of emotions, performance, and personality in the enjoyment of games. *J. Consumer Res.* 11(2):728–739.
- Hsieh J, Rai A, Xu S (2011) Extracting business value from IT: A sense-making perspective of post-adoptive use. *Management Sci.* 57(11): 2018–2039.
- Jones JK (1976) *Social Exchange Theory: Its Structure and Influence in Social Psychology* (Academic Press, London).
- Kankanhalli A, Tan B, Wei KK (2005) Contributing knowledge to electronic knowledge repositories: An empirical investigation. *MIS Quart.* 29(1):113–143.
- Kim HW, Gupta S (2009) A comparison of purchase decision calculus between potential and repeat customers of an online store. *Decision Support Systems* 47(4):477–487.
- Kim HW, Chan HC, Kankanhalli A (2012) What motivates people to purchase digital items on virtual community websites? The desire for online self-presentation. *Inform. Systems Res.* 23(4):1232–1245.
- Klamer A (2003) Gift economy. Towse R, ed. *A Handbook of Cultural Economics* (Edward Elgar Publishing, Cheltenham, UK), 241–247.
- Komter AE (2005) *Social Solidarity and the Gift* (Cambridge University Press, New York).
- Lampel J, Bhalla A (2007) The role of status seeking in online communities: Giving the gift of experience. *J. Comput.-Mediated Comm.* 12(2):434–455.
- Mallen MJ, Day SX, Green MA (2003) Online versus face-to-face conversation: An examination of relational and discourse variables. *Psychotherapy: Theory, Res., Practice, Training* 40(1–2):155–163.

- Mathur A (1996) Older adults' motivations for gift giving to charitable organizations: An exchange theory perspective. *Psych. Marketing* 13(1):107–123.
- Molm LD (1997) *Coercive Power in Social Exchange* (Cambridge University Press, Cambridge, UK).
- Molm LD (2003) Theoretical comparisons of forms of exchange. *Sociol. Theory* 21(1):1–17.
- Molm LD, Takahashi N, Peterson G (2000) Risk and trust in social exchange: An experimental test of a classical proposition. *Amer. J. Sociol.* 105(5):1396–1427.
- Narayana CL, Markin RJ (1975) Consumer behavior and product performance: An alternative conceptualization. *J. Marketing* 39(4):1–5.
- Osteen M (2013) *The Question of the Gift: Essays Across Disciplines*, Vol. 2 (Routledge, Abingdon, UK).
- Ou CX, Pavlou P, Davison R (2014) Swift guanxi in online marketplaces: The role of computer-mediated communication technologies. *MIS Quart.* 38(1):209–230.
- Pearson E (2007) Digital gifts: Participation and gift exchange in live-journal communities. *First Monday* 12(5):1–10.
- Podsakoff SB, MacKenzie B, Lee JY, Podsakoff NP (2003) Common method biases in behavioral research: A critical review of the literature and recommended remedies. *J. Appl. Psychol.* 88(5):879–903.
- Ronis DL, Yates JF, Kirscht JP (1989) Attitudes, decisions, and habits as determinants of repeated behavior. Pratkanis AR, Breckler SJ, Greenwald AG, eds. *Attitude Structure and Function* (Lawrence Erlbaum, Hillsdale, NJ), 213–239.
- Roquilly C (2011) Control over virtual worlds by game companies: Issues and recommendations. *MIS Quart.* 35(3):653–671.
- Ruth JA, Otnes CC, Brunel FF (1999) Gift receipt and the reformulation of interpersonal relationship. *J. Consumer Res.* 25(4):385–402.
- Sahlins MD (1972) *Stone Age Economics* (Aldine-Aberton, Chicago).
- Sargeant A (1999) Charitable giving: Towards a model of donor behaviour. *J. Marketing Management* 15(4):215–238.
- Sherry JF (1983) Gift giving in anthropological perspective. *J. Consumer Res.* 10(2):157–168.
- Sirdeshmukh D, Singh J, Sabol B (2002) Consumer trust, value, and loyalty in relationship exchanges. *J. Marketing* 66(1):15–37.
- Skageby J (2007) Analytical dimensions for online gift giving: "Other-Oriented" contributions in virtual communities. *Internat. J. Web Based Communities* 3(1):55–68.
- Skageby J (2010) Gift-giving as a conceptual framework: Framing social behavior in online networks. *J. Inform. Tech.* 25(2):170–177.
- Smith JB, Colgate M (2007) Customer value creation strategies: Implications for opportunity recognition and product-concept specification. *J. Marketing Theory Practice* 15(1):7–23.
- Straub D, Boudreau M, Gefen D (2004) Validation guidelines for IS positivist research. *Comm. AIS* 13(1):380–427.
- Sun H (2013) A longitudinal study of herd behavior in the adoption and continued use of technology. *MIS Quart.* 37(4):1013–1041.
- Sweeney JC, Soutar GN (2001) Consumer-perceived value: The development of a multiple item scale. *J. Retailing* 77(2):136–150.
- Thompson RL, Higgins CA, Howell JM (1991) Personal computing: Toward a conceptual model of utilization. *MIS Quart.* 15(1):125–143.
- Tiwana A, Konsynski B, Bush AA (2010) Platform evolution: Coevolution of platform architecture, governance, and environmental dynamics. *Inform. Systems Res.* 21(4):675–687.
- Torkzadeh G, Dhillon G (2002) Measuring factors that influence the success of Internet commerce. *Inform. Systems Res.* 13(2):187–204.
- Tu CH, McIsaac M (2002) Relationship of social presence and interaction in online classes. *Amer. J. Distance Ed.* 16(3):131–150.
- Ward MK, Broniarczyk SM (2011) It's not me, it's you: How gift giving creates giver identity threat as a function of social closeness. *J. Consumer Res.* 38(1):164–181.
- Wasko M, Teigland R, Leidner D, Jarvenpaa S (2011) Stepping into the Internet: New ventures in virtual worlds. *MIS Quart.* 35(3):645–652.
- Wellman B, Boase J, Chen W (2002) The networked nature of community: Online and offline. *IT Soc.* 1(1):151–165.
- Wolfinger MF, Yale LJ (1993) Three motivations for interpersonal gift giving: Experiential, obligated, and practical motivations. *Adv. Consumer Res.* 20(1):520–526.
- Yamagishi T, Cook KS (1993) Generalized exchange and social dilemmas. *Soc. Psych. Quart.* 56(4):235–248.
- Zeithaml VA (1988) Consumer perceptions of price, quality, and value: A means-end model synthesis of evidence. *J. Marketing* 52(3):2–22.