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The Power of a Thumbs-Up: Will E-commerce Switch to Social Commerce?

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Highlight

- The study explores how push, pull, and mooring factors shape switching intentions.
- Social presence, support, benefit, and self-presentation impact customer switching.

- Transaction efficiency negatively impacts switching intention.
- Conformity and experience have direct and moderating effects on customer switching.

Abstract

By taking advantage of social networking capabilities, social commerce provides features that encourage customers to share their personal experiences. The popularity of online social networks has driven the purchase decisions of buyers on social commerce sites, but few studies have explored why consumers switch between e-commerce (product-centered) and social (social-centered) commerce sites. In applying the push–pull–mooring model, the objective of this study was to gain an understanding of specifically how push, pull, and mooring factors shape their switching intentions. The findings revealed that push effect, in terms of low transaction efficiency, drives customers away from e-commerce sites, whereas the pull effects, including social presence, social support, social benefit, and self-presentation, attract customers to social commerce sites. Moreover, mooring effects, including conformity and personal experience, strengthened consumers' behavior in switching between e-commerce and social commerce sites. Besides, conformity was also found to moderate the influences of social presence, social support, social benefit, and efficiency on switching intention, whereas personal experience moderated the effects of social benefit, self-presentation, and efficiency on switching intention. Such an understanding assists online retailers in understanding online shoppers' switching behaviors, and thus turning social interactions into profits and sales.

Keywords: switching intention; push–pull–mooring framework; social commerce; e-commerce

1. Introduction

The massive growth of e-commerce combined with the popularity of online social networks is having a profound impact on the global economy. Specifically, consumer shopping behaviors have undergone changes, and a novel type of e-commerce, called “social commerce,” is emerging (Sun et al., 2016). Social commerce adds e-commerce functionalities to social networks, thus helping people purchase goods and services from places to which they are already connected (Li et al., 2013). By taking advantage of social networking capabilities, social commerce provides features including comments and reviews, tags, and user profiles, which have been labeled as one form of “user-generated content” to encourage customers to share their personal experiences with what was purchased. Customers can seek ways of leveraging other people’s expertise or influence the purchasing behavior of other shoppers, not only that of passive information takers (Pagani & Mirab, 2011/2012). Specifically, social commerce has shifted the online shopping environment from one that is business oriented to one oriented around the user (Busalim, 2016). Compared with traditional product-centered online marketplaces with firm-provided information, social commerce focuses on social-centered and consumer-driven online marketplaces where social

networking sites encourage their users to shop through social connections with friends (Shadkam & O'Hara, 2013). Because users on social networks are friends or indirect acquaintances and their information sharing seems relatively sincere compared with recommendations or reviews on shopping platforms that are provided by merchants, customers prefer information provided on the shopping platforms of social networking sites (Bai et al., 2015).

Social commerce is no longer only media hype but is an established practice (Wang & Zhang, 2012). Although social commerce is a subset of e-commerce, the concept of social commerce must be distinguished from other established concepts of e-commerce (Yadav et al., 2013). Electronic commerce is defined as the buying and selling of information, products, and services via computer networks (Nikbin et al., 2012). Similar to e-commerce site, social commerce site also provides products for transaction. As Table 1 shows, the main difference between e-commerce and social commerce site is the involved social activities. Social commerce sites provide social interactions, such as information sharing, networking, and collaborating, to facilitate communications between consumers (Liu et al., 2016). Therefore, this study defines social commerce as socially centered online marketplaces, while e-commerce is narrowly defined as the traditional business-centered online marketplaces from here.

----- Insert Table 1 about here -----

Although myriad findings relevant to e-commerce are available, social commerce remains an area requiring further validation (Alshibly, 2014). In addition, certain studies have utilized behavioral theories or models for examining consumers' behavioral intentions, such as by using the technology acceptance model (TAM) (Shen, 2012; Shin, 2013); the unified theory of user acceptance and use of technology (Gatautis & Medziausiene, 2014; Yang & Forney, 2013); and the Engel, Kollat, and Blackwell model (Kang & Johnson, 2013; Park & Cho, 2012). By contrast, others have investigated the antecedents of social shopping intention (Guiry, 2012; Shen, 2012; Stuth & Mancuso, 2010) and of social commerce intention (Hajli, 2013; Liang et al., 2011/2012; Ng, 2013; Zhang et al., 2014). However, few studies have explored why consumers switch between e-commerce and social commerce sites. The popularity of online social networks has instigated the purchase decisions of buyers on social commerce sites (Kim & Srivastava, 2007). Understanding customer switching behavior is critical for online retailers because it is highly correlated with cost savings and profitability. Retail businesses and individual retailers should recognize the implications of a potential paradigm shift from e-commerce to social commerce (Zhou et al., 2013). Accordingly, an opportunity exists to explore customers' switching behavior between e-commerce and social commerce sites.

Users may terminate or significantly reduce their use of one technology if an alternative product satisfies their needs, leading to complete or partial replacement (Ye & Potter, 2011).

Complete replacement or service substitution refers to the abandonment of incumbent products or services (Wu et al., 2017). For example, a customer may choose to use a mobile branded application and abandon a traditional membership card because the mobile application substitutes all the functions of the membership card. Partial replacement implies that individuals use a new service without completely abandoning the old one or even using them in parallel (Peng et al., 2016). For instance, an individual may move to the social network site “Instagram” to share photos and videos without completely discontinuing their use of the social network site “Facebook.” Furthermore, Chang et al. (2014) argued that switching modes is associated with the properties of products or services. Especially in a cyber migration, consumers do not completely cease to use a site even after switching to another one (Xu et al., 2014). Because both e-commerce and social commerce sites have their own particular characteristics, they cannot be replaced by another. Accordingly, switching behavior in the current study refers to consumers’ switching between different online shopping channels (within the same service), rather than the substitution of e-commerce sites with social commerce sites (service substitution).

Used in human migration literature, the push–pull–mooring (PPM) framework shows why people move from one place to another for a certain period (Boyle et al., 1998). According to the PPM, negative factors at the origin push people away, whereas positive factors at the destination pull people toward them. The push and pull factors interact with

mooring variables (e.g., personal and social factors) to either hold the migrants or facilitate migration. The PPM has been applied in many disciplines. For example, Bansal et al. (2005) empirically explored the applicability of the PPM to service switching, and found that push, pull, and mooring variables have significant as well as certain moderating effects on switching intention. Fu (2011) used the PPM to examine the antecedents of career commitment among information technology professionals. Thus, the current study involved applying the PPM to delineate the determinants of consumers' switching behavior between e-commerce and social commerce sites.

This study empirically investigates the factors that affect consumers who switch from e-commerce to social commerce sites to gain a specific understanding on how push, pull, and mooring factors shape customers' switching intentions. Push effects represent factors that drive customer away from e-commerce sites in terms of low efficiency. Pull effects, including social presence, social support, social benefit, and self-presentation, attract customers to use social commerce sites, whereas mooring effects, including conformity and personal experience, may constrain consumers' switching behavior. Therefore, this study empirically examines the direct influences of push, pull, and mooring effects on switching intention. This study also investigates the moderating effects of the mooring variables on the relationship between the push factor and consumers' switching intentions, as well as the pull factors and consumers' switching intentions. Such an understanding can help online retailers

comprehend online shoppers' switching behaviors, thereby enabling them to turn social interactions into profits and sales.

2. Theoretical foundation

2.1 Switching Behavior and the PPM

Previous literature on customer switching behavior is well-developed. Several previous studies have explored the determinants of consumers' switching behavior, such as perceived justice (Nikbin et al., 2012), satisfaction (Athanassopoulos, 2000; Han et al., 2011; Wu et al., 2014), switching barrier (Park & Ryoo, 2013; Shin & Kim, 2008; Wu et al., 2014), switching cost (Park & Ryoo, 2013; Shin & Kim, 2008; Wieringa & Verhoef, 2007), service performance (Han et al., 2011), innovativeness perceptions (Malhotra & Malhotra, 2013), customer value (Chiu et al., 2005), alternatives attractiveness (Zhang et al., 2009), and relationship quality (Wieringa & Verhoef, 2007). Although some studies have targeted the service switching process (Roos, 1999) and customer switching behavior in various service industries (Eshghi et al., 2007), except for PPM, few studies have examined these determinants in an integrated model (Chuang & Tai, 2016).

The history of the PPM framework can be traced back to the "Law of Migration" (Ravenstein, 1885), which identified seven characteristic movements to illustrate British internal migration and served as the foundation of the push-pull framework in the field of

migration study. Heberle (1938) further investigated human migration through push and pull factors. In the push–pull framework, pushing drivers include factors that force a person to abandon their current choice, whereas pulling drivers refer to the attractiveness of a new choice (Hsu, 2014). Lee (1966) added “intervening obstacles” to the push–pull model and argued that the evaluation of push and pull factors in migration decisions should be based on personal and social contexts. Although push and pull factors can be strong, situational constraints may inhibit or facilitate migration decisions. Moon (1995) incorporated “moorings” into the PPM, which may facilitate or hinder an individual from migration. Mooring factors can be situational and contextual constraints or personal variables (Bansal et al., 2005). The PPM framework is thus a valuable tool for gaining an understanding of the competing forces that influence customers’ switching behavior (Chang et al., 2014; Hsieh et al., 2012). Because this study investigates customers’ switching behavior between e-commerce and social commerce sites, the PPM provides a theoretical foundation for identifying the key predictors that influence consumers’ switching behavior. In this study, the push effect represents the factors that drive a customer away from e-commerce sites toward social commerce sites, whereas the pull effect refers to factors that motivate customers to use social commerce sites. By contrast, the mooring effect reflects the influence of personal conditions within the online shopping context.

Unlike other theories in the information system field involving fixed variables—such as ease of use, usefulness, and behavior intention in the TAM and expectations, perceived performance, confirmation, and satisfaction in the expectation confirmation theory—the PPM does not mandate fixed factors of the push, pull, or mooring effects. A number of variables have been investigated in prior studies on switching behavior using the PPM framework. Table 2 lists the PPM factors that affect switching behavior. The push, pull, and mooring variables of switching behavior differ across research contexts. PPM is particularly employed to categorize factors of specific migration behavior (Xu et al., 2014). The framework must consider the distinct characteristics of the research context to further identify specific push, pull, and mooring factors (Xu et al., 2014). Because this study attempts to advance the understanding of customers' switching between e-commerce and social commerce sites, its research framework considers the distinct characteristics of e-commerce and social commerce sites to identify the push and pull factors. As suggested by Xu et al. (2014), push and pull factors are generally symmetrical. A factor can be considered as a push or pull factor, depending on its pertinence to the origin or destination. Accordingly, push factors reflect the properties of e-commerce sites, and the limitations of e-commerce sites may increase consumers' switching intention. Pull factors reflect the characteristics of social commerce sites. This study further regards individuals' personal factors as mooring factors because user-specific factors may impede or facilitate switching behavior.

----- Insert Table 2 about here -----

2.2 Push Effect: Low Transaction Efficiency

According to the PPM framework, customers engage in switching behavior if an alternative offers greater benefit compared with that which is being used at present (Bansal et al., 2005). According to Huang and Benyoucef (2013, 2015), the chief difference distinguishing e-commerce from social commerce sites in marketing is in transaction efficiency. Electronic commerce tends to be efficient by providing advanced searches, one-click purchases, and product recommendations, whereas social commerce includes social activities such as sharing, networking, and collaborating. Specifically, low efficiency is considered a unique feature that drives customer away from e-commerce sites. Shen (2012) indicated that the goal of traditional e-commerce is to ensure that the shopping process is completed in the most efficient manner possible. Wang and Zhang (2012) found that e-commerce focuses on efficiency, transaction, and masculinity. Curty and Zhang (2013) proposed that e-commerce emphasizes on maximizing efficiency. Accordingly, low transaction efficiency is a push factor that compels consumers away from e-commerce sites. Efficiency is defined as the performance of and accessibility to a website (Olsina Santos, 1999). This includes the ability to achieve a good rating for the performance of and quick access to web pages (Ellahi & Bokhari, 2013).

2.3 Pull Effect: Sociability (Social Presence, Social Benefit, Social Support, and Self-presentation)

Pull effect can be defined as incentives that draw customers toward using social commerce sites. Because social commerce integrates social networking into e-commerce sites, it is characterized by its capabilities in their customers interacting with friends (Kim & Park, 2013). Compared with e-commerce sites, social commerce sites employ a set of social media tools for improving sociability (Najjar, 2011). Because of sociability, the users of social network sites can seek other people's opinions and engage in social shopping (Kang & Johnson, 2013). Specifically, a notable distinction between social commerce and e-commerce is that social commerce involves sociability, with users sharing information with friends on social networking sites, whereas e-commerce comprises one-way communication wherein users receive information provided by companies or individuals they do not personally know. Huang and Benyoucef (2013) further argued that the social aspect of social commerce has not been considered in its entirety. Therefore, sociability is used to represent the pull effect, which attracts consumers to social commerce sites.

Sociability is defined as the extent to which the communication environment facilitates social interactions and enhances social connectivity (Gao et al., 2010). Sociability supports the shared purpose of and social interactions among group members (Preece, 2000). Sociability focuses on how members organize their social practices and construct their

identity (Phang et al., 2009). Gao et al. (2010) identified factors that affect users' perceptions of the sociability of social software and discovered that sociability is determined by system performance, the social climate, benefits and purposes, people, self-presentation, and support for formal interactions. For this study, the concepts of social presence, social benefit, social support, and self-presentation were adopted from Gao et al. (2010) to determine the sociability (pull factor) of the social commerce sites. System performance and people were excluded as factors from this study because system performance concerns system usability rather than the sociability of social commerce sites and because people were defined to include relationships with existing contacts (Gao et al., 2010), which overlaps with the social benefits factor.

Social presence is used to represent the social climate because both the social climate and social presence refer to users' perceptions of the medium and is thus synonymous with the social climate (Kreijns et al., 2003). Social presence is defined as the degree to which a customer is perceived as a "real person" in mediated communication (Park & Cameron, 2014). Social benefit was adopted to identify benefits and purposes, whereas social support was employed to represent support from social interactions. Social benefit refers to the psychological benefits of using social commerce sites, including closeness and familiarity; closeness is defined as a feeling of intimacy and emotional bonding involving intense liking as well as the ability to tolerate friends' flaws, whereas familiarity refers to customers'

feelings toward understandings shared between social network friends (Lee & Kwon, 2011). Social support refers to people's perceptions of being cared for, responded to, and helped by others in their social group (Liang et al., 2011/2012). Informational support and emotional support represent social support (Hajli, 2014; Shanmugam et al., 2016). Self-presentation is defined as the use of social commerce sites for displaying a customer's sense of self, thus seeking favorable responses from other members. In addition, because this study sheds light on the influences of pull factors on switching intention, the interrelationships among pull factors were not considered.

2.4 Mooring Effect: Conformity, and Personal Experience

Switching between online services is a complex decision (Hsieh et al., 2012). Although push and pull factors are strong, customers may not choose to switch. The constraints, which involve situational or personal factors, may hinder customers from switching between service providers. Some theories, such as the elaboration likelihood model (ELM; Petty and Cacioppo, 1986) and motivation-opportunity-ability framework (MOA; MacInnis et al., 1991), have suggested that both motivation and ability are antecedents for information and persuasion processing. Consumers will process information from websites if they are motivated and have the ability to do so. The degree of information processing is presumed to determine consumer attitudes and behaviors (Clark et al., 2005). Furthermore, Bhattacharjee and Sanford (2006) argued that individuals may differ in their ability and motivation to

elaborate on information, which further constrains how a given message affects attitude formation or change. More specifically, a similar influence process may lead to different responses due to fluctuations in a consumer's motivation and ability. Similarly, because consumers' attitudes toward online shopping websites can be altered by websites' messages or their perceptions of websites' characteristics, consumers' motivation and ability may further moderate the relationship between persuasive message or perception and attitudes. Accordingly, although push and pull factors may directly affect consumers' switching behaviors, fluctuations in personal factors may moderate the effects of push and pull factors on switching behaviors. This study assumes that in addition to the push and pull factors reflecting the distinct characteristics of e-commerce and social commerce sites, consumers' motivation and ability may directly or indirectly affect their switching behaviors. Chang et al. (2014), Lin and Huang (2014), and Jung et al. (2017) have suggested that mooring factors correspond to consumers' personal characteristics. Thus, this study considers consumers' motivation and ability as two critical mooring effects of online service switching behaviors.

In this study, conformity indicates a consumer's motivation. Conformity is defined as an individual's tendency to comply with the group norm (Burnkrant & Cousineau, 1975). An individual's motivation to conforming to majority opinion can be attributed to two reasons: first, individuals believe that the consensus view is accurate (Deutsch & Gerard, 1955) and second, individuals naturally attempt to be accepted by others in the group. To avoid

rejection, conforming to social norms and securing approval from others reflect an individual's desire to be similar to others (Kim & Park, 2011). Social networking sites provide various types of social interactions and features (Alshibly, 2014). The popularity of online social networks has increased the popularity of social commerce (Sharma & Crossler, 2014). Customers benefit from social interactions and user content contributions in social commerce (Liang & Turban, 2011/2012). Furthermore, individuals invariably respond to peer pressure by acting in accordance with another individual's expectations (Goncalo & Duguid, 2012). More specifically, conformity resulting from social influence is one of the important determinants of customers' decision (Lascu & Zinkhan, 1999). Thus, consumer conformity to the majority seems to influence consumers' purchasing decision in the social commerce context.

Personal experience refers to experience with online shopping activities (Cheema & Papatla, 2010). Personal experience in this study describes a consumer's experience related to their shopping knowledge (Yoon, 2012). Personal experience is used to describe consumers' ability because personal experience is closely related to consumers' abilities through learning curves, which illustrate the positive relationship between experience and efficiency gains. Personal experience reduces uncertainty when making online purchases, facilitates the acquisition of additional choice-related knowledge, and involves a learning process in which consumers adjust their evaluations and purchase decision processes (Campo & Breugelmans,

2015). An experienced consumer may possess rich knowledge about different shopping channels and thus has the ability to choose the right product or shopping channels (Dai et al., 2014).

Although customer experience has been explored in previous studies—such as Yoon (2012), Pappas et al. (2014), and Campo and Breugelmans (2015)—this study regards it as a mooring factor because it is context specific and thus must be investigated in a context-specific setting (Klaus, 2013). Adding personal experience as a moderator enhances our research model and makes it more robust. For example, Ganesan (1994) evaluated the buyer–seller relationship in six department store chains and reported that a consumer’s experience with a vendor has an insignificant effect on vendor trust in terms of credibility and benevolence. By contrast, Kim et al. (2008) confirmed a positive relationship between experience and consumers’ trust in the context of e-commerce. Hsieh and Liao (2011) suggested that online shopping experience positively moderates the relationship between perceived usefulness and behavioral intention, but Ye et al. (2008) argued that user experience does not moderate the relationship between relative advantage (perceived usefulness) and users’ switching from Microsoft Internet Explorer to Mozilla Firefox. Despite several previous studies having indicated that personal experience is an essential antecedent of customer switching, such as Ye et al. (2008) and Hsieh et al. (2012), limited studies have investigated the role of personal experience in the context of social commerce. Specifically,

personal experience has been demonstrated to play a critical role in the formation of customer perceptions and attitudes (Farah, 2017; Khalifa & Liu, 2007; Pappas et al., 2014). An experienced consumer has confidence in a purchase outcome and trusts a retailer's selection and delivery process (Campo & Breugelmans, 2015). Thus, this study proposes that personal experience can be regarded as a critical factor that deters or motivates consumers using social commerce sites.

3. Hypotheses Development

3.1 Push Effect on Consumers' Switching Intention

The push effect refers to factors that drive customers away from e-commerce sites. In this study, low transaction efficiency is regarded as a push factor compelling consumers to cease using e-commerce sites. According to the transaction cost theory (Williamson, 1985), customers typically choose transactions that minimize their transaction costs, which include transaction-related activities (e.g., searching for information, negotiating, monitoring, and ordering). Compared with social commerce, traditional e-commerce provides a direct shopping mechanism. Wang and Zhang (2012) indicated that the design of traditional e-commerce is catalog based for efficiency, whereas that of social commerce involves combining virtual social spaces for cooperation. Jayawardhena and Wright (2009) suggested that the direct shopping mechanism could ease information processing and increase efficiency. Upon reviewing past studies, Shen (2012) argued that convenience and effortless

shopping are the most crucial factors for explaining online shopping behaviors. High transaction efficiency enhances consumers' attachment to an online shopping website, but low transaction efficiency may facilitate switching behavior. For example, Yang et al. (2014) proposed that the level of inconvenience affects consumer switching behavior. When customers are not able to access information efficiently, their transaction costs are increased. Because transaction efficiency can be regarded as an advantage of e-commerce websites, low e-commerce site efficiency would decrease customer attachment and thus facilitate switching behavior. Therefore, in this study, low efficiency strengthens consumers' intentions of switching from e-commerce to social commerce sites. Thus, this study proposes the following:

H₁. The push effect (low efficiency) associated with e-commerce sites exerts a positive influence on the intention to switch from e-commerce to social commerce sites.

3.2 Pull Effects on Consumer Switching Intention

The social features of a website influence its customers' visit intentions (Hajli, 2015). Social commerce sites employ social media and web 2.0 technologies, which facilitate social interactions and user-generated content (Huang & Benyoucef, 2015). For example, consumers can read purchase reviews by friends before making their own decisions, disclose personal information, or post comments to friends. Zhang et al. (2014) argued that in a social commerce environment where collective intelligence can be aggregated, interpersonal

connections are formed, giving rise to experiential social presence. Compared with e-commerce sites, social commerce sites encourage higher levels of social interactions between consumers and support user contributions. Therefore, consumers are able to experience higher levels of presence when using social commerce sites compared with e-commerce sites. According to Zhang et al. (2012), attractive alternatives positively affect behavioral intention to switching online service providers. When social commerce sites provide a psychological environment in which consumers can communicate with each other for discovering products and sharing product information, consumer intention to use the site is strengthened (Hajli et al., 2017). Thus, the social interactions and user-generated content on social commerce sites encourage users to migrate from e-commerce to social commerce sites. Moreover, social interactions through social media influence consumer decisions, including behavioral intentions (Hajli, 2014; Xu-Priour et al., 2014). Therefore, this study proposes the following:

H₂. The perceptions of social presence exert a positive influence on the intention to switch from e-commerce to social commerce sites.

Social support satisfies the customer's desire for social belonging (Hajli, 2014), whereas information support helps customers solve problems, and emotional support makes customers understanding and caring (Zhang et al., 2014). Social support represents the notion that consumers can be helped by others in a social group. According to the social cognitive

theory, people tend to perform a specific behavior when they expect a favorable outcome (Bandura, 1986). Because social commerce sites provide a benefit that e-commerce sites do not have, consumers are motivated to switch online shopping channels. In addition, Liang et al. (2011/2012) indicated that when consumers receive stronger support from other members, the derived relationship benefits enhance their intentions to use the social commerce site. Accordingly, receiving social support from other members increases consumer intention to switch from e-commerce to social networking sites. Thus, this study proposes the following hypothesis:

H₃. The perceptions of social support exert a positive influence on the intention to switch from e-commerce to social commerce sites.

Closeness is considered an essential part of establishing and maintaining interpersonal relationships (Lee & Kwon, 2011). People with a closeness relationship exercise more influence compared with others in the network and thus could be regarded as reliable information sources (Li et al., 2013). Familiarity reduces cognitive effort in decision-making, thus simplifying the decision-making process, or it renders this process to function automatically (Flavián & Guinalú, 2007). When consumers have a sense of familiarity with friends on social commerce sites, the perceived risk regarding the use of such sites decreases. According to Yang et al. (2014), a higher attractiveness of alternative options increases the motivation of consumers to switch. Compared with e-commerce, social commerce includes a

part of the social process involving friends. Intense social interactions help consumers cultivate and maintain online relationships (Wu & Wang, 2011). Specifically, because social commerce provides social interactions that help consumers maintain relationships, consumers are motivated to switch from e-commerce to social commerce sites. Accordingly, if consumers feel familiar and close to members on social commerce sites, their intentions to switch from e-commerce to social commerce sites would be strengthened. Thus, this study proposes the following:

H4. Social benefits, in terms of closeness and familiarity, exert a positive influence on the intention to switch from e-commerce to social commerce sites.

Self-presentation helps the consumer communicate attitudes and values to others and thus facilitates the formation of a sophisticated understanding regarding the consumer's identity. Through the presentation process, consumers establish a personal identity that distinguishes themselves from others. In other words, self-presentation includes an effort to possess certain personal characteristics that enhance the consumer's reputation and self-esteem (Shin & Kim, 2010). Fuller et al. (2007) indicated that an opportunity to demonstrate and present personal skills inspires user participation in a community. Teichmann et al. (2015) indicated that self-presentation establishes a person's identity for others, which facilitates relationship building. As stated by Ye & Potter (2011), consumers consider switching when a substitute offers relative advantages over the present condition. In

addition to transaction functions similar to those offered on e-commerce sites, social commerce sites integrate social media, which provides a platform for consumers to publicize their personal evaluations of purchased products. Accordingly, consumers accrue benefits from presenting themselves to earn the approval of providing a positive impression to others. Because social commerce sites help consumers disclose personal information and establish a personal identity, consumers may choose to switch from e-commerce to social commerce sites. Therefore, this study posits the following:

H₅. Self-presentation exerts a positive influence on the intention to switch from e-commerce to social commerce sites.

3.3 Mooring Effects on Consumer Switching Intention

Conformity represents consumers' propensity to comply with the group norm for social approval (Lee & Park, 2008). Conformity is perceived as an act or pressure of assimilation by the majority (Chen et al., 2011). To determine whether a behavior is acceptable, consumers observe the behavior of other consumers and follow the standard set by the group (Bearden et al., 1989; Park & Feinberg, 2010). For example, consumers seek information regarding which products fit in with their social group. Purchase decisions involve searching for and internalizing social norms (Yoon, 2012). Consumers search for information and assimilate the opinions of others to prevent themselves from being different. In the context of social commerce, consumers are able to share their detailed observations and personal opinions

(Hsiao et al., 2010). Social commerce is an emerging and evolving phenomenon (Lu et al., 2016). Compared with e-commerce sites, consumers using social commerce sites are able to observe other consumers and acquire a variety of information that accords with the perceived expectations of others. Furthermore, Kang and Johnson (2013) indicated that consumers motivated by conformity seek the opinions of other members and thus intend to engage in social shopping. Taken together, these arguments indicate that consumers who wish to conform tend to use social commerce sites because they can learn the opinions of other members and thus attempt to employ their social knowledge and experience when making online purchase decisions. Accordingly, this study proposes that conformity motivation has a positive influence on the intention to switch from e-commerce to social commerce sites. Therefore, this study proposes the following:

H₆. Consumer conformity exerts a positive influence on the intention to switch from e-commerce to social commerce sites.

Because consumers have different perceptions of online shopping, varying degrees of experiences lead to dissimilar online shopping behaviors (Kim et al., 2012). Personal experience refers to consumers' experience of online shopping and related activities. Experience leads to a reduction in perceived risks associated with online shopping (Ye et al., 2008). Experience also helps online shoppers gain additional choice-related knowledge and infer missing information (Campo & Breugelmans, 2015). Specifically, experienced online

shoppers have confidence in online purchasing because of the learning process. Liu et al. (2016) proposed that gamers who possess richer information about different games are more likely to find better games and are able to start new games effectively. Similarly, experienced consumers have confidence in their ability to discern the differences between shopping channels, and their knowledge facilitates the effective access of a new channel, such as social commerce sites. Yoon (2012) discovered that consumers' shopping experiences have a significant effect on their word-of-mouth communication. Experienced consumers tell others about their shopping experiences on social networking sites. In addition to the popularity and commercial success of social networking sites, consumers have opportunities to acquire social interactions for decision-making. Repeated behavior increases consumer knowledge and reduces risk perceptions, thereby facilitating information sharing on social commerce sites. Moreover, future customer behavior can be explained by past experiences (Farah, 2017). Individual characteristics (e.g., experience) have been found to influence switching behavior (Jung et al., 2017; Pappas et al., 2014; Ye et al., 2008). Therefore, a consumer with numerous online shopping experiences tends to switch from e-commerce to social commerce sites. This study posits the following:

H7. Personal experience exerts a positive influence on the intention to switch from e-commerce to social commerce sites.

3.4 Consumer Switching Intention on Actual Behavior

A person's behavior is directed through a process of controlled and deliberate reasoning (Ye & Potter, 2011). The influence of behavioral intention on actual behavior has been confirmed with several theories and models, including the TAM (Davis, 1989), the unified theory of acceptance and usage of technology (Venkatesh et al., 2003), and the expectation–confirmation model (Bhattacharjee, 2001). According to the PPM, switching intention positively affects switching behavior. Hence, consumers' willingness to switch from e-commerce to social commerce sites can serve as a predictor for their actual migration behavior. Thus, this study proposes the following:

H₈. The intention to switch from e-commerce to social commerce sites exerts a positive influence on actual behavior.

3.5 Moderating Roles of Mooring Factors on Consumers' Switching Intention

The advantages of applying the PPM in a service context transcend its ability to structure a long list of predictor variables into theoretically defined categories (Bansal et al., 2005). Except for the direct mooring effects on switching intention, the PPM posits that mooring effects moderate the relationship of push and pull factors with switching intentions. For example, customers might decide not to switch, despite the low quality or attractive alternatives because of the moderating effect of the high cost of switching. Therefore, in this study, mooring variables are assumed to specifically moderate the relationships between the push factors and switching intention as well as between pull factors and switching intention.

Consumers may conform to majority opinion from fear of threats involving social sanctions. Kim and Park (2011) indicated that consumers avoid further deprivation by agreeing with a high-consensus opinion to reduce the feeling of impoverished uniqueness. Thus, conformity is a reflection of one's desire to be similar to others. As proposed by Kang and Johnson (2013), conformity motivation is positively related to opinion seeking in social networking sites. If consumers with a high level of conformity believe that e-commerce sites make transactions inefficient, they may follow the opinions of others and switch from e-commerce to social commerce sites. More specifically, when consumers have conformity motivation, the effects of low efficiency on intention to switch from e-commerce to social commerce sites would be strengthened. Therefore, the following hypothesis is proposed:

H₉. Conformity positively moderates the relationship between the push effect (efficiency) and the intention to switch from e-commerce to social commerce sites.

Consumers may conform to majority opinion in pursuit of a better decision. Goncalo and Duguid (2012) argued that groups may also reach an agreement because people believe that the majority viewpoint is accurate. Therefore, consumers with a high level of conformity are likely to follow the choices of others. When social commerce sites provide opportunities for social interactions, a consumer with a high level of conformity may believe that the majority viewpoint is accurate and thus tends to switch from e-commerce to social commerce sites. Social commerce focuses on the impact of social influences that shape interactions

among consumers (Kim & Srivastava, 2007). In the social commerce environment, consumers use social networking sites for communicating and interacting with friends, and they are thus inevitably influenced by them. In other words, when consumers have conformity motivation, the effects of social presence, social support, social benefit, and self-presentation on intention to switch from e-commerce to social commerce sites would be strengthened. Thus, this study proposes the following:

H₁₀. Conformity positively moderates the relationship between pull effects, including (a) social presence, (b) social support, (c) social benefit, and (d) self-presentation, and the intention to switch from e-commerce to social commerce sites.

Consumers' risk perceptions related to online shopping decrease with an increase in experience because personal experience entails a learning process that helps consumers infer missing information from visual cues (Campo & Breugelmans, 2015). Accordingly, an experienced consumer can adjust his or her product evaluation and diagnose the product quality (Ye et al., 2008). Moreover, Biswas (2001) indicated that online consumers with a considerable degree of prior experience would conduct fewer searches compared with those with relatively less experience. Campo and Breugelmans (2015) postulated that experience helps an individual gain choice-related knowledge through a learning process. When experienced consumers perceive a website with low transaction efficiency, they may rely on their knowledge to find an alternative. An e-commerce site with low transaction efficiently

drives consumers to switch. Therefore, personal experience strengthens the influences of push factors on the intention to switch from e-commerce to social commerce sites.

H₁₁. Personal experience positively moderates the relationship between the push effect (efficiency) and the intention to switch from e-commerce to social commerce sites.

In a similar manner, benefits resulting from social interactions and user contributions attract consumers into using social commerce sites (Liang & Turban, 2011/2012). However, Cheema and Papatla (2010) found that more experiences mitigate the importance and reliability of online information sources. Experienced consumers have choice-related knowledge (Campo & Breugelmans, 2015) and have confidence in making decisions on their own, instead of soliciting information from others. Specifically, an experienced person may rely on his or her choice-related knowledge, rather than on social knowledge available from social commerce sites. Therefore, personal experience may dilute the positive influences of pull factors, including social presence, social support, social benefit, and self-presentation, on the intention to switch from e-commerce to social commerce sites. Thus, this study proposes the following:

H₁₂. Personal experience negative moderates the relationship between pull effects, including (a) social presence, (b) social support, (c) social benefit, and (d) self-presentation, and the intention to switch from e-commerce to social commerce sites.

Figure 1 shows the research model of this study.

----- Insert Figure 1 about here -----

4. Methodology

4.1 Measurement Development

A questionnaire was developed for the survey used in this study. A scale purification process was conducted according to Churchill (1979). In addition to switching intention, a seven-point Likert scale was employed for all items, with anchors ranging from *strongly disagree* (1) to *strongly agree* (7). Social presence was assessed by four items adapted from Animesh et al. (2011). Social support, which included information support (three items) and emotional support (three items), was based on Liang et al.'s (2011/2012) study. Six items adapted from Ng (2013) and Lee and Kwon (2011) were used to measure social benefit in terms of familiarity and closeness. Self-representation was measured by five items adapted from Seidman (2013) and Shin and Kim (2010). Three items adapted from Ellahi and Bokhari (2013) and Khalifa and Liu (2007) were used to assess efficiency. Conformity was used as assessed by three items adapted from Kahle (1995) and Kim and Park (2011), whereas personal experience was measured by three items adapted from Hsieh et al. (2012) and Bernard and Makienko (2011). Switching intention was measured by three items adapted from Bansal et al. (2005) on a seven-point scale. Two items adapted from Hsieh et al. (2012) were used to measure actual behavior. Appendix 1 lists the questionnaire items.

4.2 Survey Administration

The unit of analysis was individual customers who have used PChome Online (a product-centered site) and Kidshome (a social-centered commerce site). PChome was founded in Taiwan in 2000 and is currently the most widely used online store in Taiwan. In 2015, it was the nation's largest online store. By contrast, Kidshome is a socially centered commerce site. Kidshome provides transaction mechanisms and a platform on Facebook that facilitates social activities. More specifically, experienced parents can share information and thus inexperienced counterparts can acquire information on Kidshome forum at Facebook. By the end of 2015, more than 42,000 customers were registered Kidshome members. Accordingly, the respondents were consumers who used PChome for online shopping and Kidshome for social shopping. An online questionnaire was used to recruit representative samples for this study. Data were collected between November and December of 2015. Appendix 2 contains a screenshot of the PChome website, whereas Appendix 3 presents screenshots of the Kidshome website and Facebook forum, with the system interaction, website design, customer interaction, customer control, and customer connection elements indicated. PChome is a business-centered site where consumers' shopping efficiency can be maximized. Because PChome provides catalog-based shopping interface and one-way browsing, consumers can easily find the products and read the corresponding product description. Consumers may also read product recommendations provided by the website

system. By contrast, Kidshome is a customer-centered site. In addition to the site providing a transaction mechanism, it enables customers to search for products and read reviews and recommendations through hyperlinks to the Kidshome forum in Facebook. Consumers are empowered to share information or discuss products with friends. Accordingly, consumers on social commerce sites can have an interactive and collaborative online shopping experience, which aids their decision-making process.

To invite people with online shopping experiences at PChome and social shopping experiences at Kidshome to participate in the survey, a banner with a hyperlink to our web survey was published on several bulletin board systems as well as in chat rooms and virtual communities. Only respondents who had conducted at least one transaction at both PChome and Kidshome over the past 3 months were selected. In total, 382 people participated in this study; 25 responses were found to be invalid, resulting in 357 usable questionnaires. Female respondents comprised 68% of the sample. Nearly 71% of the respondents had a university education. Approximately 72% of the respondents were between 20 and 40 years of age, and over 63% had more than 3 years of online shopping experience. Approximately 58% reported spending an average of US\$36–\$70 each time they purchased an item from an online store. Details of the respondents are presented in Table 3. This study compared the demographics of our sample with those of respondents of a survey published by the Market Intelligence & Consulting Institute (MIC, 2016), a prominent market information center in Taiwan. The

MIC survey discovered that mainstream online shoppers were between 20 and 40 years of age and had spent an average of US\$200 in the previous three months, suggesting that the sample in the present study was representative of the online shopping population in Taiwan.

----- Insert Table 3 about here -----

Multiple tests were conducted to determine the validity of the survey data. To test for nonresponse bias, the responses of surveys returned early were compared against those submitted late (Armstrong & Overton, 1977). The *t*-test results revealed that the response differences were nonsignificant (confidence interval: 99%). To detect common method bias, an analysis proposed by Harman (2015) was used. The results revealed that a single factor did not emerge and that the first factor did not account for most of the variance, indicating that common method bias was unlikely to be of grave concern.

5. Research Results

5.1 Assessment of the Measurement Model

In accordance with previous research (Ringle et al., 2005), SmartPLS Version 2.0 was employed to perform the PLS analyses. In addition, bootstrapping was employed with 5000 sub-samples to assess the significance of the indicators and path coefficients. Because measurement items for efficiency (push factor) were positively worded, this study reversed the scores of the items before evaluating reliability and validity. This study determined the

reliability and validity of all constructs and conducted exploratory factor analyses to ensure high loadings on hypothesized factors and low loadings on crossloadings in data sets. All the items loaded onto the expected factors were without significant crossloadings. Cronbach's alpha of each multi-item variable was over 0.6, demonstrating high internal consistency for each variable. According to Bagozzi and Yi (2015), composite reliability (CR) scores were used to assess construct reliability, whereas averaged variance extracted (AVE) was employed to ensure convergent validity. As shown in Table 4, all factors exhibited CRs above 0.7 and AVE values satisfactorily exceeded 0.5. Finally, discriminant validity was assessed using Fornell and Larcker's (2013) recommended procedure. Table 5 shows that the square root of the AVEs was greater than all of the interconstruct correlations, indicating sufficient discriminant validity.

----- Insert Table 4 and Table 5 about here -----

5.2 Testing the Hypotheses

Figure 2 displays the PLS analysis estimates. The proposed research model showed a strong predictive power for the key endogenous constructs regarding switching intention ($R^2 = 0.43$) and actual behavior ($R^2 = 0.59$). The nonparametric Stone–Geisser test revealed positive values for switching intention (0.34) and actual behavior (0.49), indicating the successful prediction and predictive relevance of the model. Regarding the push effect, low efficiency exerted a significant effect on switching intention ($\beta = 0.29, p < .001$). By contrast,

the pull effects, including social presence ($\beta = 0.14, p < .01$), social support ($\beta = 0.19, p < .01$), social benefit ($\beta = 0.40, p < .001$), and self-presentation ($\beta = 0.10, p < .05$) exerted a positive and significant effect on switching intention. Thus, H₁ to H₅ were supported. For the mooring effect, conformity ($\beta = 0.15, p < .001$) and personal experience ($\beta = 0.14, p < .01$) exerted positive effects on switching intention. Furthermore, switching intention exerted a significantly positive effect on actual behavior ($\beta = 0.76, p < .001$). Thus, H₅ to H₈ were supported.

----- Insert Figure 2 about here -----

To explore the moderating role of the mooring effects on the relationship of switching intention with the push effect and with the pull effects, this study was conducted in accordance with the procedure used by Keil et al. (2000) and Tsang (2002). Specifically, for this study, whether estimates of the same path obtained from the two groups (high and low) of mooring factors differed significantly was tested.¹ According to Aiken and West (1991), “high” is typically defined as one standard deviation above the mean; otherwise, it is “low.” Table 6 lists the significance levels of the differences on high and low conformity for the

$$^1 S_{pooled} = \sqrt{\{[N_1 - 1/(N_1 + N_2 - 2)] \times SE_1^2 + [N_2 - 1/(N_1 + N_2 - 2)] \times SE_2^2\}}$$

$$t = (PC_1 - PC_2) / [S_{pooled} \times \sqrt{(1/N_1 + 1/N_2)}]$$

where S_{pooled} = pooled estimator for the standard deviation; t = t -statistic with $N_1 + N_2 - 2$ degree of freedom; N_i = size of sample i ; SE_i = standard error of path in structural model of sample i ; PC_i = path coefficient in structural model of sample i .

estimated paths. The last column of Table 6 shows the significance levels of the differences. Conformity was found to moderate the effects of efficiency ($\beta_{\text{high}} = 0.41$, $\beta_{\text{low}} = 0.18$, $p < .001$), social presence ($\beta_{\text{high}} = 0.40$, $\beta_{\text{low}} = 0.26$, $p < .05$), social support ($\beta_{\text{high}} = 0.15$, $\beta_{\text{low}} = -0.06$, $p < .01$), and social benefit ($\beta_{\text{high}} = 0.60$, $\beta_{\text{low}} = 0.51$, $p < .05$) on switching intention. The R^2 value represents the percentage of variance in an endogenous construct, as explained by other constructs that are connected to it directly. The R^2 values of switching intention were typically large, with 0.62 for the high-conformity group and 0.51 for the low-conformity group. Therefore, H₉ was supported, but H₁₀ was only partially supported.

Table 7 lists the significance levels of the differences on the high and low levels of personal experience for the path estimates. The table shows that personal experience moderated the effects of efficiency ($\beta_{\text{high}} = 0.38$, $\beta_{\text{low}} = 0.15$, $p < .001$), social benefit ($\beta_{\text{high}} = 0.48$, $\beta_{\text{low}} = 0.73$, $p < .05$), and self-presentation ($\beta_{\text{high}} = 0.14$, $\beta_{\text{low}} = -0.03$, $p < .001$) on switching intention. The R^2 value of switching intention was 0.58 for the people in the group with a high level of personal experience, whereas it was 0.68 for their low-level counterparts. Thus, H₁₁ was supported, but H₁₂ was only partially supported.

----- Insert Table 6 and Table 7 about here -----

6. Research Recommendations and Implications

6.1 Research Findings

Several findings can be derived from this study. First, low transaction efficiency compels consumers from an e-commerce to a social commerce site. Electronic commerce tends to be more efficient compared with social commerce because social commerce sites provide social activities. These findings are in agreement with those obtained by Wang and Zhang (2012), who showed that e-commerce was considered to have the characteristics of efficiency and masculinity. The findings further support the notion proposed by Alshibly (2014), who stated that social commerce relegates efficiency as secondary to social goals (e.g., networking).

Second, social commerce supports the content creations and user contributions facilitate the purchase and sale of products. When consumers perceive social commerce to provide an environment where members are psychologically present, receive support from other members, feel close to or familiar with other members, or help them disclose personal information to establish a personal identity, they tend to switch from e-commerce to social commerce sites. The results implied that social benefits exerted the strongest effect (0.40) on switching intention, followed by social support (0.19), social presence (0.14), and self-presentation (0.10). These findings are in line with those reported in past studies. Shadkam and O'Hara (2013) indicated that social commerce combined with online media supports social interactions, thus enhancing the online purchase experience. Liang et al. (2011/2012) found that receiving support from other members enhances consumer intentions

of using social commerce sites. Ng (2013) stated that a feeling of closeness and familiarity has positive effects on the intention to purchase in social commerce environments. Füller et al. (2007) argued that the opportunities to establish a personal identity and present personal skills inspire users to participate in a community.

Third, when consumers are likely to switch from e-commerce to social commerce sites, they have actual switching behavior. This finding is consistent with the TAM (Davis, 1989), the unified theory of acceptance and usage of technology (Venkatesh et al., 2003), and the expectation–confirmation model (Bhattacharjee, 2001). Fourth, conformity had a direct and moderating influence for social presence, social support, social benefit, and transaction efficiency on switching intention. When consumers have a high level of conformity motivation, their intentions to switch from e-commerce to social commerce sites are increased. The findings confirm the notion that consumers' conformity motivation is positively related to intentions to engage in social shopping (Kang & Johnson, 2013). In addition, stronger conformity entails a stronger relationship between low efficiency and switching intention and between pull variables, including social presence, social support, and social benefit, and intention of switching from e-commerce to social commerce sites. These findings are consistent with those reported in previous studies. Conformity is a reflection of one's willingness to be similar to others and is a critical determinant of customer decisions (Kim & Park, 2011; Lascu & Zinkhan, 1999).

However, conformity does not moderate the positive effects of self-presentation on switching intention. The reason may be related to the presentation of the self being contextual, as based on a specific setting and an anticipated outcome (Schau & Gilly, 2003). Conformity may result from the belief that the majority view is correct or from fear of threat regarding social sanctions (Goncalo & Duguid, 2012). Conformity motivation concerns adhering to group norms (Kahle, 1995). Consumer may have high levels of conformity, and conformity emerges from avoiding the sense of impoverished uniqueness. Under such conditions, consumers want only to be similar to others, and they may not want to establish a personal identity to distinguish themselves from others. Because consumers are free to present personal information on social commerce sites, consumers with a high level of conformity may not necessarily engage fully in information-sharing and contribution activities. Thus, a high or low degree of conformity may not strengthen the positive influence of self-information on switching intention. Therefore, conformity does not determine the influence of self-presentation on switching intention.

Finally, experience not only has a direct influence on switching intention but also has moderating effects for social benefit, self-presentation, and efficiency on switching intention. These findings are consistent with those reported in several previous studies including Kim et al. (2012) and Ye et al. (2008), who found that different experiences with online shopping led to dissimilar behaviors. However, when e-commerce sites cannot provide efficient

transactions, experienced consumers may choose to switch to social commerce sites. Campo and Breugelmans (2015) indicated that experience helps consumers manage expectations and facilitate the transition to the new store environment. Moreover, when consumers are inexperienced, can secure benefits, or establish a personal identity, they tend to switch from e-commerce to social commerce sites. These findings are consistent with those obtained by Ye et al. (2008), who indicated that experience helps consumers reduce uncertainties and perceived risk when shopping online.

Contrary to our expectations, personal experience did not moderate the positive effects of social presence and social support on switching intention, possibly because of a considerable degree of variation in the quality of online information (Cheema & Papatla, 2010). An experienced consumer can gain additional product-related knowledge (Campo & Breugelmans, 2015). Because product-related information online includes a substantial degree of variations, an experienced consumer tends to conduct product evaluations according to his or her knowledge, even if the environment is one in which others are psychologically present or they can receive informational or emotional support. Experience helps online consumers to judge product quality by inferring from environmental cues based on uncertain or missing information through a learning process. Therefore, irrespective of whether consumers have high or low levels of relevant personal experience, the effects of social presence and social support on switching intentions were nonsignificant.

6.2 Theoretical Implications

This study differs from past studies in three critical ways. First, few studies have discussed consumers' switching to social commerce sites, even though an abundance of literature has shed light on social commerce; for example, the evolution of social commerce (Busalim, 2016; Liang & Turban, 2011/2012; Wang & Zhang, 2012), social commerce features (Alshibly, 2014; Bai et al., 2015; Curty & Zhang, 2013; Hajli, 2015; Huang & Benyoucef, 2013; Kim & Park, 2013; Shadkam & O'Hara, 2013; Shanmugam et al., 2016), the antecedents of consumer adoption and purchase intention (Hajli et al., 2017; Liang et al., 2011/2012; Lu et al., 2016; Shen, 2012; Zhang et al., 2014), and information sharing and disclosure (Liu et al., 2016; Sharma & Crossler, 2014; Zheng et al., 2013). The popularity of online social networks has driven the purchase decision of buyers on social commerce sites (Hajli et al., 2017). In addition, the PPM framework has been employed in numerous research contexts, such as when investigating mortgages (Bansal & Taylor, 1999), service firms (Keaveney, 1995), hairstyling (Bansal et al., 2005), energy supplying services (Wieringa & Verhoef, 2007), hotels (Han et al., 2011), social networking sites (Chang et al., 2014; Xu et al., 2014), healthcare (Lai & Wang, 2015), technology products (Lin & Huang, 2014; Wu et al., 2017), and the airline industry (Jung et al., 2017). However, little research to date has directly and empirically investigated consumers' switching between different shopping channels. Because of the potentially negative consequences of consumer switching behavior

for companies, factors that motivate consumer switching behavior warrant validation (Yang et al., 2014). Especially in online shopping context, customers can switch to an alternative service provider through a simple click. The use of the PPM framework has not yet been employed for investigating online shopping channel switching behavior in the field of information systems. By applying the PPM framework (Boyle et al., 1998), this study empirically investigated the factors that affect consumers who switch from e-commerce to social commerce sites to gain an understanding on how push, pull, and mooring factors shape their switching intentions.

Second, previous studies have typically considered consumers' evaluation of the limitations of a current product or service as push factors and their evaluation of the attractiveness of alternatives as pull factors (Bansal et al., 2005; Chang et al., 2014; Chou et al., 2016; Han et al., 2011; Hou et al., 2011; Jung et al., 2017; Wieringa & Verhoef, 2007; Zhang et al., 2012; Zhou, 2016), whereas different types of switching cost are regarded as mooring factors (Bansal et al., 2005; Chang et al., 2014; Chou et al., 2016; Fang & Tang, 2017; Han et al., 2011; Hou et al., 2011; Hsieh et al., 2012; Jung et al., 2017; Lai & Wang, 2015; Wu et al., 2017; Xu et al., 2014; Ye & Potter, 2011; Zhang et al., 2012; Zhou, 2016). Despite these studies confirming the existence of general push, pull, and mooring effects that explain switching behavior, more specific and actionable constituent factors for these three forces are required in this research context (Xu et al., 2014). Applying the PPM in a service

context can enable the structuring of a long list of predictor variables into theoretically defined effect categories (Bansal et al., 2005). This study advanced the understanding of customer switching intention by assessing the push effect, in terms of low efficiency, and pull effect, in terms of sociability, based on the differences between e-commerce and social commerce sites. To the best of our knowledge, few studies have discussed sociability in the context of social commerce sites. This study addressed the recommendation by Phang et al. (2009) that “future research may be conducted in the context of communities that are un-moderated to investigate how sociability dimensions in these communities differ from the current context” (p. 741).

Finally, although push and pull factors are strongly influential, a consumer may remain with the current service provider when mooring variables are strong too (Bansal et al., 2005). Because mooring factors can be personal factors, this study used conformity and personal experience to indicate consumers’ motivation and ability, respectively. Chen et al. (2016) argued that conformity has become a paradigm of social influence, but its effect on the determination of whether innovations are adopted is seldom addressed. Online consumer conformity is relatively unexamined regarding its ability to explain and predict consumer social behavior (Park and Feinberg, 2010). Nonetheless, customer experience must be investigated in a specific context (Klaus, 2013). For example, the findings of Ganesan (1994) and Kim et al. (2008) regarding the relationship between experience and trust are

contradictory because of the different research contexts of the studies. In summary, although conformity and personal experience have been investigated by previous studies, few studies have employed these two factors in the context of social commerce. Therefore, their moderating effects between the push factors and switching intentions and between pull factor and switching intentions were verified further.

6.3 Managerial Implications

This study provides relevant insights into the management of online shops. First, when consumers believe that an e-commerce site provides low transaction efficiency, their intentions of switching from the e-commerce site to a social commerce site increases. These findings imply that every type of commerce site has advantages and disadvantages. Specifically, the choice of using social commerce or e-commerce sites may be based on product type. When consumers require a certain amount of information to aid decision-making, such as when purchasing experience goods and special goods, they rely on social commerce sites for product reviews and recommendations. By contrast, if consumers tend to purchase convenience goods, they need a product-specific site (e.g., one that offers options for a one-click purchase and advanced searches) to maximize transaction efficiency. The underlying rationale is that although social commerce is a trend, an e-commerce site is targeting a market niche. Transaction efficiency can be achieved by providing quick and advanced searches, customized applications, fast retrieval of information, scheduling

deliveries, product catalogues, one-click purchases, and product recommendations. Therefore, online retailers should understand their firm's market position, product types, and consumer preferences to determine the attributes of the websites and maximize consumer value.

Second, as indicated by Huang (2000), social commerce sites focus on social activities, including information sharing and collaboration, with a secondary emphasis on shopping. However, the statement by Huang and Benyoucef (2000) appears to contradict to the purpose of online retailers, who expect consumers to purchase their products, rather than to limit their actions to interacting with others on the social commerce site. Regardless, the present findings confirmed that social presence, social support, social benefit, and self-presentation had positive impacts on switching intention. In other words, social commerce sites may not increase consumers' purchasing behavior directly but may do so indirectly through social activities on social commerce sites. Therefore, online retailers must develop their strategies depending on social media. For example, an online retailer should design a website with social features that allow a consumer to become fully aware of the presence of others, disclose personal information, receive support from others, and secure benefits from their interactions. Firms can thus gain an understanding of their customers' needs and identify new business opportunities by strengthening connections with customers through social commerce sites.

Third, when consumers have conformity motivation and gain a relative advantage on social commerce sites compared with e-commerce sites, their intentions of switching to social commerce sites are strengthened. Consumer conformity is determined by task, personal, brand, and group characteristics (Lascu & Zinkhan, 1999). Online retailers should enhance consumer conformity by manipulating product characteristics (e.g., product visibility and luxury) and community characteristics (e.g., group size, similarities of the group to the individual, interactions, and goal clarity). For example, online retailers can increase the social visibility of their products because the perception of visibility has a positive influence on consumers' product choice. Online retailers may also design a website that facilitates consumers' social interactions because coordination and communication increase the level of conformity. Although conformity may represent only the motivation to follow instead of agreement (Goncalo & Duguid, 2012), online retailers can use conformity to direct consumers' switching behaviors.

Finally, personal experience was found to positively impact switching intention. According to Song et al. (2007), consumer experience includes direct and indirect experiences. A direct product experience represents physical interactions with the product, whereas an indirect product experience occurs through textual information and images. Although online retailers cannot control consumers' experiences of online shopping, a website may improve consumers' virtual shopping experiences. For example, in addition to

actual usage, an online retailer may design a website interface with multimedia that provides previews or trials of products to encourage acquisition based on usage experience. Moreover, social commerce sites may customize their sales methods according to consumer preferences. For example, online retailers track customers' browsing records, which they can use to provide one-click purchases for experienced customers and to provide product reviews and ratings for a novice. In summary, an understanding of consumer switching behavior between e-commerce and social commerce sites can aid online retailers in developing strategies for attracting target consumers. Once online retailers can determine consumers' behaviors, interactions and collaborative activities on social commerce sites may turn a desired product into a purchase.

6.4 Research Limitations and Directions for Further Study

This study has several limitations. First, this study used self-report measures in which consumers were asked to recall their online transaction experience of the preceding 3 months. Future research may use longitudinal data collected using a website system or database from online vendors to determine consumers' purchasing behavior effectively. Second, the personal experience adopted in this study referred to consumers' online shopping experience, rather than their good or bad evaluations. Because consumers' evaluations of positive or negative shopping experiences can affect their switching behavior, future research can take the experiential aspect of the shopping experience into consideration. Third, this study

incorporated a list of variables into the PPM framework on the basis of differences between e-commerce and social commerce sites and considerations of consumers' motivation and ability. However, using only one factor for the push effect but four factors for the pull effect appears unbalanced. Thus, future research may incorporate other predictors into their model to describe consumers' switching between e-commerce and social commerce sites. Fourth, the present study was aimed at exploring customers' cross-channel switching behaviors between e-commerce and social commerce sites. However, consumers may switch from one e-commerce site to another. Accordingly, future research should consider within-channel switching behavior. Finally, the sampling frame of this study was individual customers who have used PChome Online (a product-centered site) and Kidshome (a social-centered commerce site). Given that each website has its own characteristics, whether research findings derived from these two websites can be generalized to other websites is unclear. Future studies should consider examining consumers' switching behaviors by comparing our research findings with different e-commerce and social commerce sites.

Appendix 1: Study questionnaire items

Social presence (adapted from Animesh et al., 2011)

- SP1 When surfing Kidshome, the interaction with other customers is personal.
 SP2 When surfing Kidshome, the interaction with other customers is warm.
 SP3 When surfing Kidshome, the interaction with other customers is humanizing.
 SP4 When surfing Kidshome, the interaction with other customers is sociable.
-

Social support (adopted from Liang et al., 2011/2012)

Informational support

- IS1 When I encounter a problem, some people on Kidshome give me information to help me overcome the problem.
 IS2 On Kidshome, some people offer suggestions when I need help.
 IS3 When I am faced with a difficulty, some people on Kidshome help me discover the cause and offer suggestions.
-

Emotional support

- ES1 When I am faced with a difficulty, some people on Kidshome are on my side.
 ES2 When I am faced with a difficulty, some people on Kidshome comfort and encourage me.
 ES3 When I am faced with a difficulty, some people on Kidshome express interest in me and are concerned with my well-being.
-

Social benefit (adapted from Ng, 2013; Lee and Kwon, 2011)

Familiarity

- FA1 I am familiar with my friends on Kidshome through message exchanges.
 FA2 I am familiar with my friends on Kidshome through information sharing.
 FA3 Compared with other users, I am more familiar with friends on Kidshome.
-

Closeness

- CL1 I feel a sense of closeness with my friends on Kidshome.
 CL2 I feel a sense of intimacy with my friends on Kidshome.
 CL3 I feel that my friends' product recommendations or product reviews on Kidshome are a very important part of my shopping life.
-

Self-presentation (adapted from Seidman, 2013; Shin and Kim, 2010)

- SP1 I usually update my profile on Kidshome.
 SP2 I can express my opinions through publishing articles on Kidshome.
 SP3 I share my personal information and living conditions on Kidshome.
 SP4 I tell my stories on Kidshome.
 SP5 I present personal information on my profile on Kidshome.
-

Efficiency (adapted from Ellahi and Bokhari, 2013; Khalifa and Liu, 2007)

- EF1 Processing transactions on PChome are efficient (e.g., fast retrieval of information, ordering, payment processing, and scheduling deliveries).
 EF2 The PChome search function is quick.
 EF3 PChome provides customized applications.
-

Conformity (adapted from Kahle, 1995; Kim and Park, 2011)

- CO1 I always follow the opinions of the majority.
 CO2 It is critical that others think well of how I behave and act.
 CO3 When I am uncertain on how to act in a social situation, I try to imitate others.
-

Personal experience (adopted from Hsieh et al., 2012; Bernard and Makienko, 2011)

- PE1 In the past, I usually shopped online.
 PE2 In the past, I seldom changed the way I shopped online.
 PE3 I know everything about online shopping stores.
-

Switching intention (adopted from Bansal et al., 2005)

Rate the probability of you switching from PChome to Kidshome within the next 2 months

SI1 unlikely ... likely

SI2 improbable ... probable

SI3 no chance ... certain

Actual behavior (adapted from Hsieh et al., 2012)

AB1 Regarding usage frequency, I usually use Kidshome every day.

AB2 I spend more time on Kidshome than on PChome.

Appendix 2: Screenshot of PChome website

The screenshot displays the PChome website interface. At the top, there is a navigation bar with various categories and a search bar. Below this, a large banner advertises a promotion: '8%大回饋' (8% cashback) and '滿5,000送200' (spend 5,000 get 200). The main product featured is a 'TOTOLINK 5000mAh 極速快充 行動電源' (TOTOLINK 5000mAh Super Fast Charge Power Bank) priced at \$299. The product description lists features like 115W output, 0.52cm thickness, and compatibility with various devices. Below the product, there is a shopping cart section showing the item and a total price of \$299. At the bottom, a '相關產品' (Related Products) section recommends other power banks from brands like ASUS and PowerSkin.

Customer connection: customers interact with e-commerce platforms individually

Customer control: customers have little control

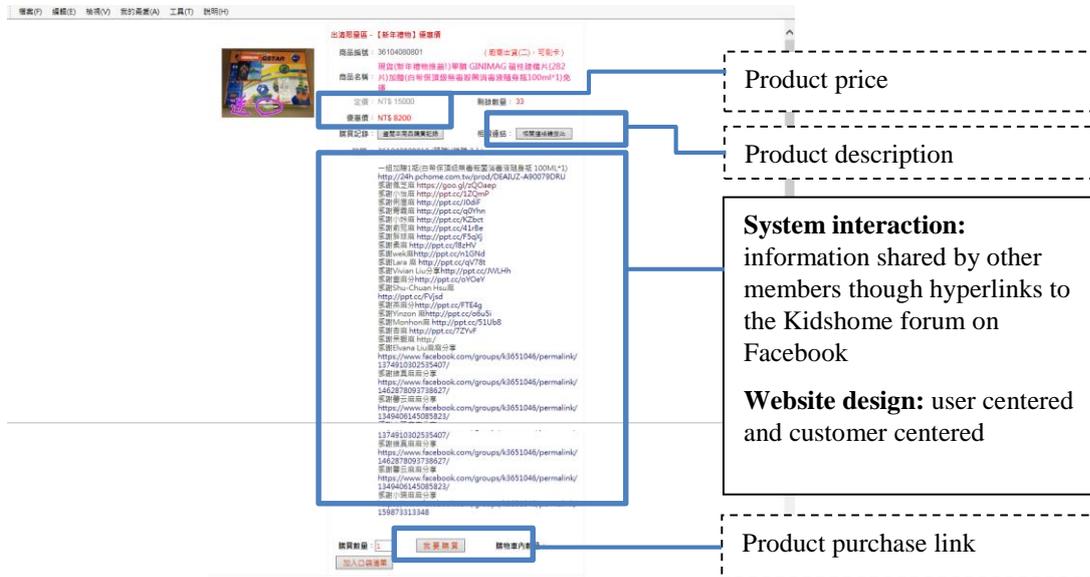
Business goal: maximizing shopping efficiency

Website design: product centered and catalog based

System interaction: related products recommended by the system

http://24h.pchome.com.tw/prod/OAQ255-13007NLUKF

Appendix 3: Screenshots of Kidshome Website and Kidshome forum at Facebook



Kidshome website



Kidshome forum at Facebook

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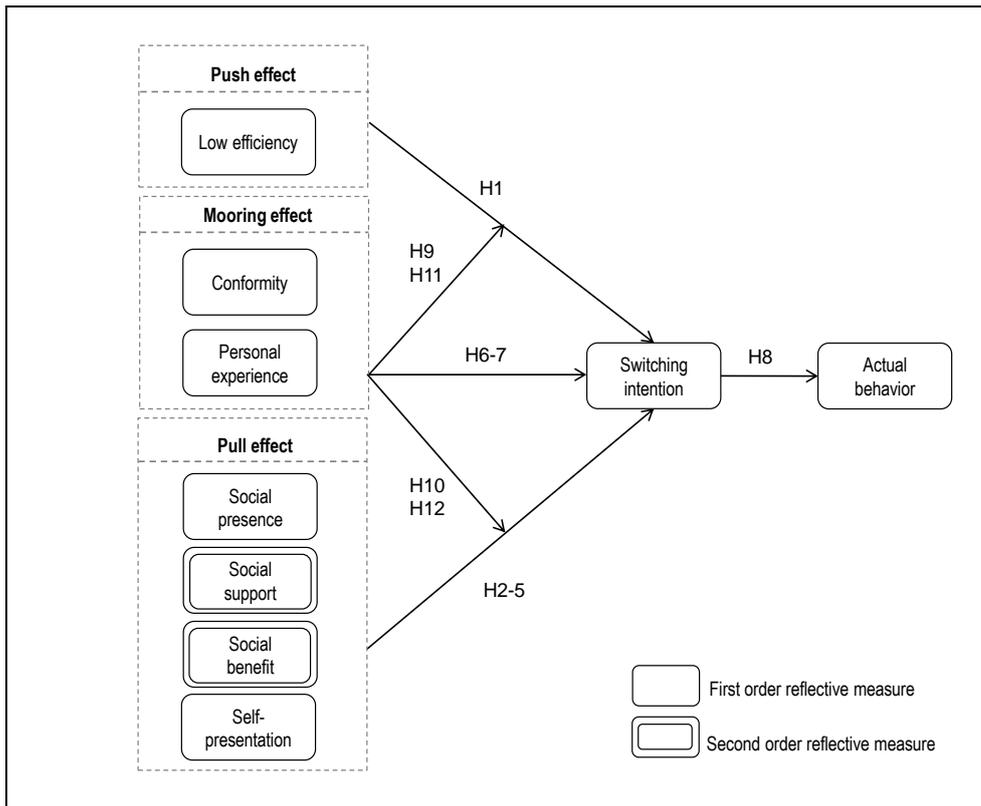
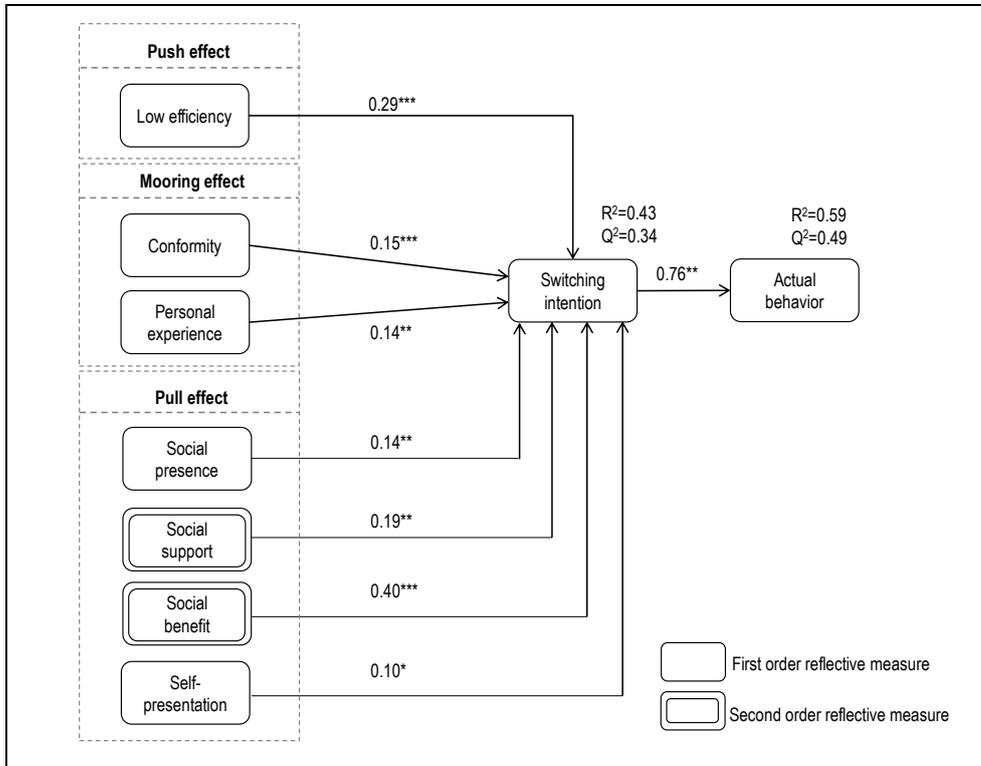


Figure 1 Research Framework of this Study



Note: * $p < 0.05$, ** $p < 0.01$ *** $p < 0.001$

Figure 2 PLS Results for the Proposed Model

Table 1 The distinct differences between e-commerce websites and social commerce websites

	E-commerce	Social commerce	References
Customer connection	Customers interact with e-commerce platforms individually and independently from other customers	Customers join online communities that support social connection and encourage conversation between customers	Huang and Benyoucef (2013)
Customer control	Consumers have little or no control	Consumers are empowered	Huang and Benyoucef (2015)
System interaction	Providing one-way browsing	Offering a more social, interactive, and collaborative online experience	Huang and Benyoucef (2013), Huang and Benyoucef (2015)
Business goal	Maximizing shopping efficiency	Focusing on social activities	Shen (2012), Wang and Zhang (2012), Huang and Benyoucef (2013), Huang and Benyoucef (2015)
Website design	Product centered and catalog based	User centered and customer centered	Wang and Zhang (2012), Huang and Benyoucef (2015)

Table 2 Factors identified in the PPM

Author	Research context	Push factor	Pull factor	Mooring factor
Keaveney (1995)	Service firm	Pricing, inconvenience, core service failure, failed service encounters, response to failed service, ethical problems	Attraction by competitors	Involuntary switching
Bansal et al. (2005)	Hair styling and automobile repair service	Low quality, low value, low trust, low commitment, high price perceptions	Alternative attractiveness	Attitude towards switching, subjective norms, switching costs, infrequent prior switching behavior, variety seeking
Wieringa and Verhoef (2007)	Energy supplier	Price, quality perception, trust	Attractiveness of switching	Switching cost
Fu (2011)	IT professionals	Career satisfaction, threat of professional obsolescence	Availability of career alternatives	Professional self-efficacy, career investment
Han et al. (2011)	Upper-midscale hotel	Core service performance, service encounter performance, customer satisfaction, relational investment	Alternatives' attractiveness	Switching cost
Hou et al. (2011)	Online game service	Low enjoyment, low service satisfaction, and perception of insufficient participants	Attractiveness of alternative	Switching costs, social relationship, need for variety and prior switching experience
Ye and Potter (2011)	Technology switching	Breadth of use and satisfaction of the incumbent product	Relative advantage and perceived ease of use	Subjective norms, perceived switching cost, and risk aversion
Hsieh et al. (2012)	Online service	Weak connection, writhing anxiety	Enjoyment, relative usefulness, relative ease of use	Switching cost, past experience
Zhang et al. (2012)	Blog services	Satisfaction	Attractiveness of alternatives	Sunk costs
Chang et al. (2014)	SNS service provider	Dissatisfaction and regret	Alternative attractiveness	Switching costs
Lin and Huang (2014)	Technology product	Disconfirmation, low satisfaction	Relative advantage	Inertia, switching cost, network effect
Xu et al. (2014)	Social networking services (SNS)	Dissatisfaction with current SNS	Attraction from the alternative SNS	Switching cost, peer influence

Author	Research context	Push factor	Pull factor	Mooring factor
Lai and Wang (2015)	Healthcare service	Low satisfaction, low commitment	Ubiquitous care, responsiveness, personalized care	Low privacy and security, high switching costs, low trust, and low government support
Chou et al. (2016)	Channel switching	Perceived risk	Attractiveness of alternatives	Switching costs, attitudes toward switching, subjective norms, past behavior, and variety seeking of an online channel
Zhou (2016)	Mobile stores	Dissatisfaction with system quality, information quality and service quality	Alternative attractiveness	Switching costs and social influence
Fang and Tang (2017)	Instant messaging	Regret	Network effects, similarity, innovativeness	Switching cost
Jung et al. (2017)	Airline industry	Low service quality, pricing problem, low satisfaction, and low trust	Attractiveness of alternatives, opportunity for alternatives, pricing benefits	High switching cost, low variety seeking, low prior switching experience, involuntary choice
Wu et al. (2017)	Personal cloud storage services	Risk	Trust, critical mass	Switching cost, social norm

Table 3 Characteristics of the respondents

Characteristic	Description	Count	Percent
Gender	Female	243	68.00
	Male	114	32.00
Marriage	Not married	51	14.28
	Married	306	85.72
Age	<19	30	8.40
	20–29	137	38.38
	30–39	120	33.61
	40–49	58	16.25
	>50	12	3.36
Education	High school or below	103	28.85
	University or college	184	51.54
	Graduate school or higher	70	19.61
Online shopping frequency	A few times a week	18	5.04
	Approximately once a week	96	26.89
	Approximately once a month	168	47.06
	Once every three months or less	75	21.01
Internet shopping experience	1 year or less	38	10.64
	2–3 years	93	26.05
	4–5 years	175	49.02
	6 years or more	51	14.29
Average spend on each occasion	US\$15 or less	65	18.21
	US\$16–35	80	22.41
	US\$36–50	101	28.29
	US\$51–70	108	30.25
	More than US\$71	3	0.84

Table 4 Factor loadings and reliability

Construct/indicators	Loading	<i>t</i> -statistics	CR ¹	AVE ²	Cronbach's α
First order reflective construct					
Social presence			0.90	0.65	0.87
SP1	0.81	24.30			
SP2	0.81	23.70			
SP3	0.76	18.72			
SP4	0.79	23.85			
SP5	0.85	29.98			
<i>Emotional support</i>			0.91	0.83	0.80
ES1	0.92	81.76			
ES2	0.91	71.84			
<i>Informational support</i>			0.87	0.69	0.77
IS1	0.81	35.65			
IS2	0.85	43.51			
IS3	0.83	33.17			
<i>Closeness</i>			0.90	0.76	0.84
CL1	0.90	82.36			
CL2	0.88	60.01			
CL3	0.83	35.89			
<i>Familiarity</i>			0.91	0.76	0.85
FA1	0.90	65.78			
FA2	0.90	48.77			
FA3	0.84	44.69			
<i>Self-presentation</i>			0.94	0.77	0.95
SE1	0.95	3.77			
SE2	0.88	4.26			
SE3	0.87	4.16			
SE4	0.85	3.97			
SE5	0.85	3.92			
<i>Conformity</i>			0.85	0.66	0.77
CO1	0.92	47.51			
CO2	0.70	9.63			
CO3	0.80	14.94			
<i>Personal experience</i>			0.86	0.68	0.75
EX1	0.86	24.53			
EX2	0.90	44.65			
EX3	0.69	12.09			
<i>Efficiency</i>			0.97	0.91	0.95
EF1	0.95	7.49			
EF2	0.95	8.25			
EF3	0.97	8.02			
<i>Switching intention</i>			0.93	0.81	0.88
SI1	0.92	95.40			
SI2	0.91	77.51			
SI3	0.87	54.89			
<i>Actual behavior</i>			0.96	0.92	0.91
AB1	0.96	129.43			
AB2	0.96	180.39			
Second order reflective construct					
Social support			0.88	0.59	0.83
<i>Emotional support</i>	0.85	57.96			
<i>Informational support</i>	0.92	97.40			
Social benefit			0.92	0.65	0.89
<i>Closeness</i>	0.92	104.31			
<i>Familiarity</i>	0.92	97.17			

Note: ¹ CR, composite reliability; ² AVE, average variance extracted

Table 5 Correlations among major constructs

Variable	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
(a) Social presence	0.81										
(b) Emotional support	0.37	0.91									
(c) Informational support	0.38	0.57	0.83								
(d) Closeness	0.39	0.51	0.58	0.87							
(e) Familiarity	0.44	0.58	0.56	0.70	0.87						
(f) Self-presentation	0.15	0.09	0.03	0.07	0.02	0.88					
(g) Conformity	0.04	0.13	0.16	0.20	0.14	0.21	0.81				
(h) Personal experience	0.10	0.19	0.25	0.31	0.23	0.20	0.42	0.82			
(i) Efficiency	0.57	0.39	0.36	0.40	0.42	0.14	-0.0 1	-0.0 7	0.95		
(j) Switching intention	0.26	0.40	0.47	0.53	0.48	0.05	0.32	0.36	0.06	0.90	
(k) Actual behavior	0.18	0.39	0.43	0.49	0.42	0.14	0.31	0.44	0.01	0.66	0.96

Note: ¹Diagonal elements are the square root of average variance extracted (AVE) of the reflective scales.

²Off-diagonal elements are correlations between constructs.

Table 6 Path estimates and variance explained for two-group comparison on conformity

Path	Conformity		Significance of the difference between path estimates
	Low (N ₁ =72)	High (N ₂ =59)	
Low efficiency → Switching intention	0.18**	0.41*	0.001
Social presence → Switching intention	0.26*	0.40***	0.05
Social support → Switching intention	-0.06	0.15*	0.01
Social benefit → Switching intention	0.51***	0.60***	0.05
Self-presentation → Switching intention	0.10	0.14*	n.s.
Construct	<i>R</i> ² value		
Switching intention	0.51	0.62	

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 7 Path estimates and variance explained for two-group comparison on personal experience

Path	Personal experience		Significance of the difference between path estimates
	Low (N ₁ =68)	High (N ₂ =63)	
Low efficiency → Switching intention	0.15*	0.38***	0.001
Social presence → Switching intention	0.06	0.11	n.s.
Social support → Switching intention	0.06	-0.01	n.s.
Social benefit → Switching intention	0.73***	0.48**	0.05
Self-presentation → Switching intention	0.14	-0.03	0.001
Construct	<i>R</i> ² value		
Switching intention	0.68	0.58	

Note: * $p < 0.05$, ** $p < 0.01$ *** $p < 0.001$