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The role of live streaming in building consumer trust and engagement with social commerce sellers

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ABSTRACT

Live streaming services (e.g., Facebook Live), whereby video is broadcast in real time, have been adopted by many small individual sellers as a direct selling tool. Drawing on literature in retailing, adoption behavior, and electronic commerce, this paper proposes a comprehensive framework with which to examine the relationships among customers' perceived value of live streaming, customer trust, and engagement. Symbolic value is found to have a direct and indirect effect via trust in sellers on customer engagement, while utilitarian and hedonic values are shown to affect customer engagement indirectly through customer trust in products and trust in sellers sequentially. Elucidating the role of live streaming in increasing sales and loyalty, these findings suggest different routes through which small online sellers can build customer engagement with two types of trust as mediators. Theoretical and managerial implications of this analysis for social commerce are further discussed at the conclusion of this paper.

1. Introduction

Today, social networking sites (hereafter, "SNSs") such as Facebook, Twitter, and Pinterest are spaces through which users not only connect with others and consume news but also get information about products and even shop. According to PwC's (2016) Total Retail Survey, 16% of a sample of online shoppers worldwide said they had purchased directly via a social media channel—an increase from 7% in 2014. This figure is higher in Asia (30%), especially in Thailand (51%), India (32%), and Malaysia (31%), and Southeast Asia is now leading the social commerce ("s-commerce") market, where most sellers are small brands or customer-to-customer sellers (Priceza Group, 2016). Globally, there is a large number of individual sellers selling via Facebook profiles, Facebook groups, and Facebook marketplaces, and there are more than 65 million small business pages on Facebook (Facebook, 2017). S-commerce on SNSs has become a low-cost, easy alternative to e-commerce whereby individual sellers can easily set up their own account to sell products, requiring no formal registration or web design skill. Unlike a well-established business with sound return policies or quality control, buying from small individual sellers, especially those with no physical store, is thus risky, as customers may not get a product at all, or may get a fake, poor-condition, or low-quality product. This has resulted in customers having less trust toward individual sellers than toward large established firms (Jarvenpaa, Tractinsky, & Vitale, 2000; Lu, Deng, & Yu, 2006). Some online sellers are trying to address such customer concerns by allowing the return of products, or by using third-party payment processors or cash on delivery.

Recently, some s-commerce and e-commerce sites such as Facebook and Taobao have enabled live video streaming. While brands such as Burberry and Starbucks have used Facebook Live to broadcast their marketing activities (e.g., fashion shows), several individual sellers in various countries go beyond advertising to real time to sell their products. Live streaming is used to demonstrate how products are created and used, to show different perspectives of products, to answer customer questions in real time, and to organize live activities that entertain and encourage customers to buy on the spot (Lu, Xia, Heo, & Wigdor, 2018; an example is illustrated in Fig. 1). Importantly, live streaming adds value to the SNSs through the existence of broadcasters/streamers (Smith, Obrist, & Wright, 2013). It allows sellers to reveal their faces, offices/homes, and personalities (i.e., social presence), and brings the buyer–seller interpersonal interaction and related selling techniques used offline back to the online world. Such livestreaming-enabled social presence and interaction can enhance the shopping experience, reduce shoppers' uncertainty, and increase the level of trust they have toward the s-commerce seller (Hajli, 2015).

Considering the increasing use of Facebook Live (more than 10 million videos were broadcast during New Year's day and over 100 million people watched the most-viewed live video) (Facebook, 2018),

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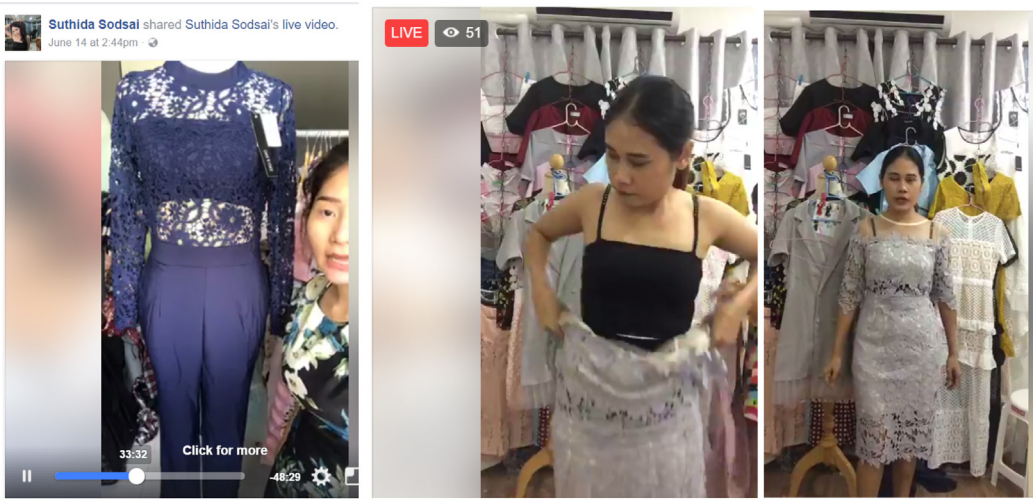
Examples of live streaming as applied in social commerce

(a) Close-up view of products (b–c) Product try-on



(d–e) Product presentation (f) Free gift activity

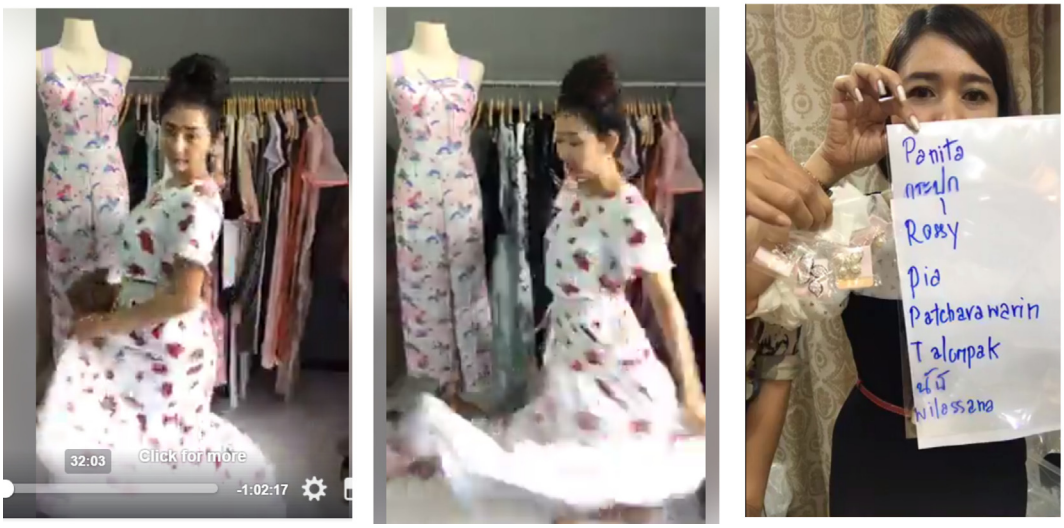


Fig. 1. Examples of live streaming as applied in social commerce.

there is very little extant research examining the livestreaming phenomenon. Most existing studies have described the motivation and experiences of livestreaming users with respect to entertainment or knowledge-/experience-sharing purposes (Hilvert-Bruce, Neill, Sjöblom, & Hamari, 2018; Hu, Zhang, & Wang, 2017; Lu et al., 2018; Todd & Melancon, 2017) and gifting behaviors (Li, Hou, Guan, & Chong, 2018; Tu, Yan, Yan, Ding, & Sun, 2018; Wohn, Freeman, & McLaughlin, 2018). To date, only Cai, Wohn, Mittal, and Sureshbabu (2018) have examined consumer motivations for live streaming shopping. Given the potential contribution to stimulating customer response and building rapport, our study goes beyond consumer motivation and intention and examines the relationship between live streaming value and consumer trust and engagement, which are key to success in s-commerce.

Prior research examining online trust in business-to-consumer commerce (e.g. Kim & Park, 2013; Kim & Peterson, 2017) tends to focus on functional benefits such as service quality, privacy, reputation, and usefulness, and lacks analysis of hedonic and social motivations as antecedents of trust. Rather than considering its wider conceptualization, "trust" in this paper is divided into two distinct aspects: trust in sellers and trust in products. Building on the model of "shopping value" previously explored in retail research (Babin, Darden, & Griffin, 1994), we expect that customer perceived value (i.e., utilitarian, hedonic, and symbolic value) of live streaming shopping will enhance trust in products and sellers, which in turn can lead to customer engagement—the most important performance measure of a firm's social media presence (Sashi, 2012). Unlike previous research in s-commerce that has studied the social media platform or established s-commerce sites (e.g. Hajli, Sims, Zadeh, & Richard, 2017; Kim & Park, 2013; Lu, Fan, & Zhou, 2016; Sharma, Menard, & Mutchler, 2017), this study examines consumer attitudes and responses toward small online sellers that use Facebook Live in selling their products. We consider small sellers in the current research as they outnumber big firms yet are underexamined in the extant research in s-commerce.

By investigating the mechanism of how live streaming influences consumer trust and engagement, this study elucidates the role of live streaming as a direct selling tool that has potential to build customer engagement. In the following sections, we first review what s-commerce is and what has been found in previous studies on the topic, before constructing a model of live streaming effects based on theories used to understand consumer behavior in the retail environment.

2. Literature review and hypothesis development

2.1. Social commerce and live streaming

"S-commerce" is a subset of e-commerce, which uses social media that supports social interaction to assist in online transactions and enhance the online shopping experience (Liang & Turban, 2011; Marsden, 2010; Shen & Eder, 2011). S-commerce can be broadly classified into two types (Huang & Benyoucef, 2013): (1) e-commerce websites that incorporate social features to facilitate social interaction (e.g., Amazon, with its customer reviews), and (2) (the focus of this paper) SNSs that add commercial features to enable advertising and/or selling of products/services (e.g., Facebook, with its shop section and payment system). Zhang and Benyoucef (2016) reviewed 77 prior studies related to consumer behaviors on SNSs. Previous studies can be grouped into two broad research streams, based on the theories that are drawn upon. The first stream focuses on sociocultural aspects of s-commerce using cultural dimensions, social capital, social exchange, social influence, and social support theory. The other stream investigates consumer motives, values, benefits, and antecedents of s-commerce adoption and word of mouth by using motivation/value theory, the stimulus–organism–response model, the theory of reasoned action, and the technology acceptance model. In this paper, we extend research on the latter stream by incorporating the social value factor in the analysis to account for the social nature of s-commerce.

Previous studies in e-commerce (Chiu, Wang, Fang, & Huang, 2014; Huang & Benyoucef, 2013; Zhang & Benyoucef, 2016) and s-commerce (Kang, Johnson, & Wu, 2014; Kim & Park, 2013; Shin, 2013) have suggested several antecedents of consumer behaviors. These include the characteristics of the platform (e.g., ease of use, system quality, layout/design), content (e.g., informativeness, entertainment value, timeliness, relevance), product (e.g., product quality, price), seller (e.g., reputation, social presence, service quality), network (e.g., tie strength), and consumer (e.g., susceptibility to interpersonal influence, brand/quality consciousness, impulsiveness).

In this paper, we focus on the characteristics of SNSs that use a new feature—live streaming—to facilitate the selling of products. The unique characteristic of live streaming is that consumers can interact with sellers in real time, resulting in an immersive, engaging shopping experience and a more interpersonal connection (Haimson & Tang, 2017; Wohn et al., 2018). Given the real-time immersiveness of live streaming, consumers can feel a sense of social presence and social/human touch even without actual human contact (Gefen & Straub, 2004). "Social presence," which refers to the degree of salience of the other person in the interaction and the consequent salience of the interpersonal relationship (Short, Williams, & Christie, 1976), is enhanced through live streaming beyond that seen in typical e-commerce and s-commerce exchanges in which the personal identity of the seller is barely, or is not, displayed. The higher degree of social interaction and social presence developed from two-way synchronized communication between buyers and sellers, and the display of comments of other viewers, can therefore increase consumers' trust and reduce their uncertainty (Li et al., 2018) through the perception that the online seller is real, sociable, and identifies with the shoppers.

Research pertaining to the live streaming context is still at a nascent stage, and most is in the form of a survey conducted to describe the characteristics of live streaming and consumer motivations to participate in it. This paper takes the analysis further by examining the process of how live streaming can increase consumer trust and thus engagement. Based on the stimulus–organism–response model, the perceived value of live streaming shopping, which is an environmental cue, can serve as a stimulus that affects consumers' internal process (i.e., how customers evaluate the seller's and product's trustworthiness), which in turn drives them to engage with the seller more. The following sections describe the role of shopping value, trust, and customer engagement, leading to the development of our study's hypotheses in the final section.

2.2. Perceived value

"Shopping value" is the overall assessment of subjective and objective factors that make up the complete shopping experience (Zeithaml, 1988). Previous research has suggested that consumers make online purchases based on utilitarian (e.g., convenience) and hedonic (e.g., enjoyment) shopping values (Childers, Carr, Peck, & Carson, 2002). Since social aspects play a crucial role in social media (De Vries & Carlson, 2014), the social or symbolic value of shopping is also considered in this paper.

2.2.1. Utilitarian value

"Utilitarian value" refers to the degree to which a product/service provides the expected utility. Utilitarian shopping value is seen when a consumption need stimulating the shopping trip has been fulfilled (Babin et al., 1994). This results from the consumer finding the products they are seeking (Babin et al., 1994); saving money, time, and/or effort (Rintamäki, Kanto, Kuusela, & Spence, 2006); and having enhanced convenience in terms of access, search, possession, and transaction (Seiders, Berry, & Gresham, 2000). In the case of online shopping, previous studies (e.g., Bridges & Florsheim, 2008; Overby & Lee, 2006) have found that utilitarian value is more strongly related than hedonic value to purchase intention and behavior.

When shopping online, consumers tend to be concerned with the vendor's legitimacy and product authenticity (Chen & Dhillon, 2003). This is more relevant when the seller is small and independent, with no physical store. "Authenticity" refers to the genuineness, reality, and originality of something; related to this concept is that of being natural (Boyle, 2003; Fine, 2003; Kennick, 1985). Live streaming allows shoppers to view the seller's face and expressions, background (e.g., clothes, display), as well as the products on offer, in a way that cannot be prerecorded or edited prior to being presented in the online store. Unlike advertisements, which feel more artificial, live streaming videos, which show the reality of the seller and what they are offering without fabrication, are perceived as more authentic—the quality that customers are increasingly seeking in a brand (Gilmore & Pine, 2007). Authenticity is important for brand trust and, consequently, SME growth (Eggers, O'Dwyer, Kraus, Vallaster, & Güldenberg, 2013).

Another concern related to online shopping is that consumers cannot physically touch, test, or try on items before purchase, which increases the perceived risk of online shopping (Lee, Kim, & Fiore, 2010). For online apparel shopping, some websites use image interactivity technology (e.g., zoom-in, mix-and-match, and 3D functions) and virtual fitting to help online consumers experience the sensory information of the product (Lee et al., 2010; Park, Stoel, & Lennon, 2008). Customers buying clothes from SNSs often find that clothes are less beautiful and of a lower quality than expected based on the model's Photoshopped images. In the case of live streaming, many online apparel sellers try on the clothes to demonstrate what these items look like on an ordinary person's figure, helping shoppers to visualize the "real" products and make a decision.

Compared to traditional shopping, in an online shopping environment, customers are separated from sellers and products in time and space, with an absence of human network attributes (i.e., audio, video) and of feedback and learning capability (Nohria & Eccles, 1992; Yoon, 2002). Responsiveness is therefore an important quality in designing

and evaluating online stores (Van Riel, Liljander, & Jurriens, 2001), and can increase visitors' online flow experiences, attitudes, and behavioral intentions (Van Noort, Voorveld, & Van Reijmersdal, 2012). “Responsiveness” here is defined as the ability to respond quickly to customers' requests and suggestions (Zeithaml, 2000), and can be measured according to the speed of the company's responses to customers (Van Riel et al., 2001). Due to the spontaneous, interactive nature of live streaming, question-and-answer sessions represent a popular use of Facebook Live, as the format allows customers to ask questions and receive answers from the seller almost in real time, thereby fostering interactivity and customers' perceptions of connection (Wang, Head, & Archer, 2000). In addition, responsiveness refers to the extent to which customer feedback is taken into consideration (Gummerus, Liljander, Pura, & Van Riel, 2004). Just as sellers can ask and answer questions in real time through live streaming, so too can they obtain customer feedback quickly, which they can then use to improve their service to better respond to the trend and needs of customers.

Overall, we expect that live streaming will provide utilitarian value in terms of authenticity, visualization, and responsiveness.

2.2.2. Hedonic value

Customers are also motivated by “hedonic value,” which reflects recreational, emotional, and experiential benefits of the shopping activity (Babin et al., 1994). Hedonic value is often associated with the degree of playfulness that shoppers experience from the applicable website (Jarvenpaa & Todd, 1997). Embedding playful features within a site helps to differentiate it from other sites and enhances customer satisfaction (Eighmey, 1997). “Playfulness” or enjoyment can be defined as the degree to which an experience is fun, interesting, or pleasant (Moon & Kim, 2001) and incorporates pleasure, arousal, and escapism (Mathwick, Malhotra, & Rigdon, 2001; Menon & Kahn, 2002). According to Parsons (2002), most online shoppers think that online shopping offers an opportunity for diversion from the routine of daily life.

Fiore, Jin, and Kim (2005) also found an effect of image interactivity features (e.g., mix and match, virtual model) of online apparel retailers in e-commerce sites on emotional pleasure and arousal that, in turn, led to a willingness to patronize the online store. Similarly, online sellers can use live streaming to showcase their products in action. For clothing, merely viewing the seller showing or wearing clothes, or putting them on a mannequin, can be fun and enjoyable, almost like viewing a fashion show, which can reduce boredom. Sellers can also broadcast live events, such as behind-the-scenes content, when they shop for materials, or when employees are designing or sewing clothes.

Some online sellers run flash sales to give discounts to shoppers who watch their streams live in real time. Getting a bargain can make consumers feel like they have overcome a challenge (Arnold & Reynolds, 2003). Indeed, pleasure derived from such bargain hunting is one of the reasons why people shop online (Wolfinbarger & Gilly, 2001). Like activities on TV, many sellers and brands, such as ASOS, also create games/activities in which fans can participate during the live stream, or enable them to earn gifts. Shoppers may feel excited waiting to see if they are lucky enough to get this gift. Facebook Live also has several features, such as on-screen graphics and special effects (e.g., filters and masks), with which brands can create a fun, exciting experience for customers. The interactive, dynamic nature of live streaming makes these activities more engaging and interesting.

Overall, we posit that sellers can make use of live streaming to entertain customers, thereby enhancing the shopping experience and making it pleasant, enjoyable, and exciting.

2.2.3. Symbolic value

In addition to utilitarian and hedonic value, symbolic value can be derived from shopping. Shopping is a social act in which symbolic meanings, social codes, relationships, and the consumer's identity and self can be created (Firat & Venkatesh, 1993). Thus, shoppers tend to value a shopping experience that can reflect and enhance their personal identity (Erdem, Ben Oumlil, & Tuncalp, 1999; Sirgy, Grewal, & Mangleburg, 2000) and that helps them achieve social integration (Hewer & Campbell, 1997). Koo, Kim, and Lee (2008) demonstrated that the personal values of self-actualization (e.g., self-fulfillment) and social affiliation (e.g., friendly relationships) have a positive influence on consumers' assessments of online stores' attributes, and that this has a positive influence on re-patronage intention.

Shopping behaviors can change the way shoppers think about themselves and their capabilities in the marketplace (Crawford, 1992; Sandikci & Holt, 1998). Given that live streaming is still not prevalent or in general use, customers who participate in live streaming may perceive themselves as innovative. “Innovativeness,” or the degree to which an individual is receptive to new ideas and makes innovative decisions, is one of the factors that influence new product adoption (Midgley & Dowling, 1978). As consumers shop, they form perceptions not just about themselves but also about stores/sellers and other patrons (El-Hedhli, Chebat, & Sirgy, 2013; Sandikci & Holt, 1998). Consumers tend to shop at places where they encounter people of their own kind, with whom they can identify. The match between the stereotypical patron image and an individual's self-concept (i.e., self-congruence) plays a major role in store evaluations and patronage (Massicotte, Michon, Chebat, Sirgy, & Borges, 2011).

In SNSs with a live streaming function, individual sellers and other viewers coexist within the same platform. Therefore, “social identification”—a self-defining process used to depict a belongingness with respect to certain groups (Ashforth & Mael, 1989) and achieve self-consistency or self-esteem (Bhattacharya & Sen, 2003)—can take place in relation to the individual (seller) and group (other viewers) (Belén del Río, Vazquez, & Iglesias, 2001). Identification with a seller and other viewers enhances a customer's participation and interaction on SNSs (Badrinarayanan, Sierra, & Martin, 2015) as well as a long-term relationship with the seller (Hu et al., 2017; Tuškej, Golob, & Podnar, 2013).

At the individual level, live streaming allows shoppers to observe the appearance and personality of a seller, and, as a result, they may admire the seller for his/her appearance, attitudes, charisma, and talents (Hu et al., 2017). Shoppers can then evaluate the extent to which they can identify with the seller, whether their tastes and preferences match, and thus whether they can rely on the seller to provide a product assortment that satisfies their preferences.

At the group level, one of the characteristics that make s-commerce unique compared to e-commerce is that of social interaction and sharing. Shoppers rely on information created and shared by other online shoppers (e.g., reviews, feedback, number of likes) to make purchase decisions (Kim & Park, 2013). While shoppers interact with others via text-based dialogues to exchange their thoughts about products and services from the broadcaster (Hamilton, Garretson, & Kerne, 2014), they can evaluate other customers' identities and subtly share their identity-related information (Hu et al., 2017). Since live streaming provides real-time feedback, it can help shoppers to infer characteristics of other patrons, the popularity of products, and whether a product will be accepted by their social networks.

Overall, we expect that live streaming will provide social or symbolic value as customers can assign symbolic meanings about themselves, the seller and the seller's offerings, and other customers.

2.3. Customer trust

Live streaming with potential shopping value (hedonic, utilitarian, or symbolic) is likely to have a positive effect on a customer's attitudinal (e.g., trust) and behavioral (e.g., engagement) responses. “Trust” is defined as a general belief that the other party in the social exchange will behave in an ethical and socially appropriate manner, and will not act opportunistically (Gefen, Karahanna, & Straub, 2003; Hwang & Kim, 2007). Trust exists when one party has confidence in an exchange

partner's ability, integrity, and benevolence (Gefen & Straub, 2004; Morgan & Hunt, 1994). Online trust involves consumers' perceptions of a site's competence to provide truthful information and deliver on expectations, their perceptions of the firm's good intentions, and their impressions of the site's system (Bart, Shankar, Sultan, & Urban, 2005).

Komiak and Benbasat (2004) have suggested that consumer trust in offline/online commerce involves trust in several entities: the company, the agent (seller, salesperson, website, SNS admin), the product, and the market/channel (physical, Internet). As the focus of this paper is on small sellers who uses live streaming in facilitating selling on SNSs (with no shop/payment system as in the website), two relevant entities—seller and product—will be examined. In the online commerce context, the temporal and spatial separation of transaction partners leads to the lack of face-to-face interaction between a customer and a seller, and between a customer and a product, and this makes customer trust a crucial factor (Brynjolfsson & Smith, 2000; Komiak & Benbasat, 2004). This nature of e-commerce relative to the traditional commerce context gives rise to information asymmetry and transaction risks; namely, identity uncertainty of partners and fear of their opportunism, and product quality uncertainty (Ba & Pavlou, 2002; Gefen et al., 2003; Goode & Harris, 2007; Kaiser & Müller-Seitz, 2008). Therefore, unlike other related studies that consider one type of trust (Hajli, 2015; Kim & Park, 2013; Lu et al., 2016; Yahia, Al-Neama, & Kerbache, 2018; Yoon & Occeña, 2015), this paper considers both trust in the seller and trust in the product. “Trust in the seller” is the belief that the seller is trustworthy, provides good-quality services, and does not take advantages of customers (Lu, Zhao, & Wang, 2010). “Trust in the product” refers to the customer's belief that a product will meet their expectation, and that it will look and function as claimed (Lee & Lee, 2005; Pappas, 2016).

Previous studies have suggested various characteristics of customers, organizations, and platforms (Kim & Park, 2013; Kim & Peterson, 2017; Yahia et al., 2018) to be important in building online trust. Frequently examined antecedents of online trust include disposition to trust, reputation, perceived security, service quality, and usefulness (Kim & Peterson, 2017). Most of these can be regarded as utilitarian values in relation to online commerce, which seem to influence one dimension of trust. Trust is multidimensional, comprising cognitive and affective dimensions (Lewis & Weigert, 1985; McAllister, 1995). Except perhaps Yahia et al., 2018, the extant research on antecedents to trust in e-commerce/s-commerce have not included reference to all of the utilitarian, hedonic, and social values that can influence trusts in both dimensions.

“Cognitive trust” is a customer's belief in or willingness to depend on the other party's expertise and performance (Johnson & Grayson, 2005; Moorman, Deshpande, & Zaltman, 1993). In the s-commerce context, this could refer to a consumers' belief that the information they receive is true, that they can rely on the seller's recommendations, that they will get the product they have ordered from the seller, and that the product they receive will be as expected. Through live streaming, which can provide utilitarian value in terms of authenticity, responsiveness, and visualization, identity uncertainty and product uncertainty should be mitigated. That is, customers should feel more confidence and trust in the seller and his/her products. Therefore, we posit:

H1a. The utilitarian value of live streaming has a positive relationship with customers' trust in the seller.

H1b. The utilitarian value of live streaming has a positive relationship with customers' trust in the product.

“Affective trust” (also known as emotional, interpersonal, or relational trust) (Guenzi & Georges, 2010; Lewis & Weigert, 2012; Rousseau, Sitkin, Burt, & Camerer, 1998) involves a subjective evaluation, based on emotions, about the characteristics of the partner (Hansen, Morrow Jr., & Batista, 2002) and the associates. In the context of the current study, it is formed through emotional bonding between customers and sellers (Kim & Park, 2013). Observing and joining the seller's activities via live streaming can provide hedonic value as it enhances the consumer's shopping experience and makes it more pleasant and enjoyable. Such positive emotions and feelings can serve as a foundation for an emotional relationship with the seller and his/her products. Yahia et al. (2018) found that an s-commerce vendor's hedonic efforts were positively related to the consumer's trust in the vendor; however, they did not consider the effect on trust in products. Affective trust (in respect of a product) may be regarded as the emotion-based evaluation of product characteristics with less cognitive deliberation. Selling via live video enables sellers to present products in a novel way, which may enhance consumers' moods and feelings and thus trust in the product. Therefore:

H2a. The hedonic value of live streaming has a positive relationship with customers' trust in the seller.

H2b. The hedonic value of live streaming has a positive relationship with customers' trust in the product.

Affective trust is typically defined as a customer's belief, based on his or her emotions, about the other party's level of care and concern (Rempel, Holmes, & Zanna, 1985). Levels of trust can be increased by a seller's likeability (i.e. friendliness, pleasantness, and courteousness) (Nicholson, Compeau, & Sethi, 2001) and perceived similarity (i.e. common interests and demographic and personality traits) that the trustor perceives of the trustee (Crosby, Evans, & Cowles, 1990; Johnson & Grayson, 2005; Ziegler & Golbeck, 2007). Since live streaming allows customers to observe a seller's appearance and personality, and to assess the extent to which a seller can be identified with them and is empathetic to their needs, we predict that customers' perceived symbolic value can increase trust in the seller as well as the seller's products. Although Keller (1993) argued that symbolic value is less product related than utilitarian/hedonic value, there has to date been no empirical study investigating the relationship between symbolic value and trust in a product. Therefore, it is worth examining these hypotheses:

H3a. The symbolic value of live streaming has a positive relationship with customers' trust in the seller.

H3b. The symbolic value of live streaming has a positive relationship with customers' trust in the product.

While there are numerous studies investigating trust in the traditional and online environment, most have focused on trust in the seller or trust in the e-commerce/s-commerce system. A few recent works have distinguished trust in the product from trust in the seller (Hidayanto, Ovirza, Anggia, Budi, & Phusavat, 2017; Pappas, 2016), but the relationship between these two types of trust remains unexamined. Since a product is one element of the retail mix, it could be posited that trust in the product precedes and is a foundation for trust in the seller. Thus, we postulate:

H4. Customers' trust in a product has a positive relationship with customers' trust in the seller.

2.4. Customer engagement

Per Zhang and Benyoucef's (2016) comprehensive review, several studies on s-commerce have examined the effect of SNSs on customer purchase (e.g., purchase intention/behavior, information disclosure, s-commerce intention) and post-purchase activities (e.g., website usage, participation, information sharing, and brand loyalty), which can also influence other customers at pre-purchase stages (the “zero moment of truth”) such as the need recognition stage (e.g., attention attraction), search stage (e.g., information seeking and browsing), and evaluation stage (e.g., attitude toward brands or products).

In this paper, we are interested in examining customer engagement,

which is regarded as the most important benefit companies expect from being present on social media (Sashi, 2012). It can be defined as the level of the customer's (or potential customer's) interaction, and connection with the brand or firm's offerings and activities initiated by the organization or customer (Vivek, Beatty, Dalela, & Morgan, 2014; Vivek, Beatty, & Morgan, 2012). This definition moves beyond feelings of brand community engagement and represents customers' behavioral manifestation toward a brand or firm beyond purchase (Marketing Science Institute, 2006; Van Doorn et al., 2010). Thus, engagement involves engaging in activities not necessarily related to search, evaluation, and purchase (Vivek et al., 2012), or all consumer-to-firm interactions throughout the customer journey and consumer-to-consumer communications about the brand (Gummerus, Liljander, Weman, & Pihlström, 2012).

Previous research has suggested that perceived shopping value can influence consumers' selection, evaluation, purchase, and satisfaction with the shopping experience, which in turn can affect re-patronage intentions (Baker, Parasuraman, Grewal, & Voss, 2002; Fiore & Kim, 2007). Gummerus et al. (2012) found a relationship between customer engagement behaviors and perceived benefits from engagement, which in turn influence relationship outcomes (e.g., satisfaction and loyalty). Based on earlier discussions about the potential utilitarian, hedonic, and symbolic value of live streaming on SNSs, we expect to see a relationship between perceived shopping value and customer engagement with the seller:

H5. The utilitarian value of live streaming has a positive relationship with customer engagement.

H6. The hedonic value of live streaming has a positive relationship with customer engagement.

H7. The symbolic value of live streaming has a positive relationship with customer engagement.

Trust plays an important role in influencing consumers' purchase decisions related to online stores (Kim, Ferrin, & Rao, 2008), and can facilitate interactions between sellers and buyers in any type of e-commerce, including s-commerce (Chang & Chen, 2008). Trust can lead to positive feelings toward the online seller, and in turn increase intention to revisit and purchase from the site (Chiu, Chang, Cheng, & Fang, 2009). On the other hand, a lack of trust prevents shoppers from engaging in online shopping. Engaged people are generally those who visit the site frequently, spend substantial time on the site, and have many page views (Calder, Malthouse, & Schaedel, 2009). Customer engagement requires the establishment of trust and commitment in buyer–seller relationships. When customers trust sellers and their products, they can be expected to become advocates for the seller (Sashi, 2012). Thus:

H8a. Customers' trust in the seller has a positive relationship with customer engagement.

H8b. Customers' trust in the product has a positive relationship with customer engagement.

2.5. Research model and hypotheses

Fig. 2 draws on the above literature to present a theoretical framework of the impact of the live streaming on customer trust and engagement with online sellers. Live streaming is expected to create customers' perceived hedonic, symbolic, and utilitarian values, which can lead to an increase in customers' trust in the seller and the product (H1–H3) and customer behavioral engagement (H5–H7). Trust in respect of a product can contribute to trust regarding a seller (H4), and these two types of trust will have a positive effect on customer behavioral engagement (H8).

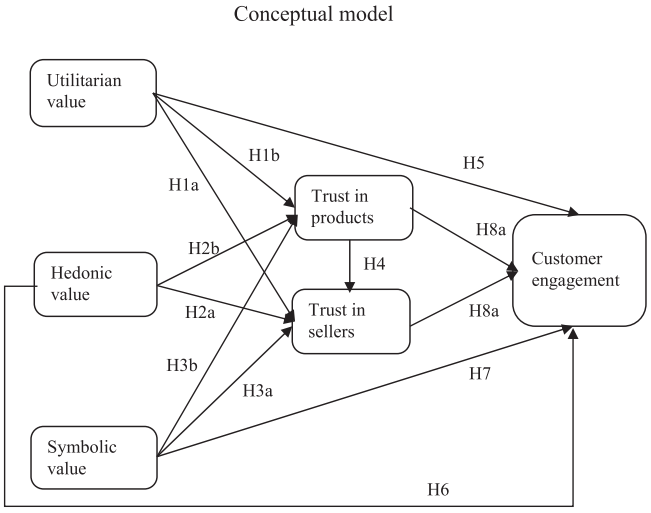


Fig. 2. Conceptual model.

3. Methodology

3.1. Sampling

Data were collected in Bangkok, Thailand, the city with the largest number of active Facebook users in the world (35 million; Hootsuite & We Are Social, 2017). According to Facebook Thailand's managing director, John Wagner (Pornwasin, 2018), Thai SMEs are leading the world in s-commerce. There are more than 2.5 million Thai SMEs that have Facebook pages, and Thailand is the top country in the Asia Pacific and in top five in the world in terms of the number of messages between customers and SMEs. Given the large number of potential shoppers and sellers, Thailand was the first country in which Facebook introduced Facebook Shop, experimented with Facebook Payment, and created marketing tools for SMEs such as coupons, location-based advertising, and stickers in Facebook Messenger.

Partial least squares structural equation modeling (PLS-SEM) was used as the method of analysis, as it is suitable for validation and predictive ability assessment (Fornell & Bookstein, 1982). Using PLS allows researchers to study samples smaller than 500 (Hair, Sarstedt, Hopkins, & Kuppelwieser, 2014), and so is well suited to study this new platform, since not many people currently use Facebook Live. To determine the sample size, we relied on previous reviews of papers that have used PLS and have suggested the average sample size to be between 211 (Hair, Ringle, & Sarstedt, 2011) and 246 (Shah & Goldstein, 2006). Additionally, Barclay, Higgins, and Thompson (1995) suggested the minimum size should be 10 times the maximum number of formative indicators of a construct or structural paths directed at a particular construct. Thus, the suggested sample size for this study ranged from 100 (i.e., 10 times the number of items in the utilitarian construct, which is the largest number of indicators) to 246 (average sample size). In total, we collected data from 261 Bangkok-based respondents who had experienced watching Facebook Live videos to sell fashion products. Of this number, 31% (n = 81) had bought products via Facebook Live. The majority of respondents were female (n = 187; 71.65%), aged between 20 and 29 (n = 137; 52.49%), and had a bachelor's degree (n = 190, 72.80%).

3.2. Questionnaire and measures

Respondents were presented with a self-administered questionnaire that was written in Thai. The original questionnaire was constructed in English, translated, and back-translated and pretested with respondents from the same population. Since Facebook Live is quite new, the

questionnaire started with a screening question to ensure that respondents had experience watching Facebook Live videos by online sellers. They were then asked to evaluate the perceived value of Facebook Live shopping, followed by customer trust and their engagement with fan pages, using a five-point Likert scale anchored with (1) "*strongly disagree*" to (5) "*strongly agree*."

All measurement items (shown in the Appendix) were pretested and adjusted to fit the context of shopping on Facebook Live. A 10-item measure of utilitarian value was adapted from Featherman, Valacich, and Wells (2006), Fiore, Kim, and Lee (2005), Liu (2003), and Song and Zinkhan (2008). A nine-item measure of hedonic value was derived and adapted from Arnold and Reynolds (2003), Babin et al. (1994), Chiu et al. (2014), and Hausman and Siekpe (2009). A nine-item measure of symbolic value was adapted from Escalas (2004), Lu et al. (2010), and Rintamäki et al. (2006). A four-item measure of trust in the seller and a three-item measure of trust in a product were adapted from Ba and Pavlou (2002), Gefen et al. (2003), and Kim and Park (2013). Finally, an eight-item measure of engagement was adapted from Calder et al. (2009), Gummerus et al. (2012), Hausman and Siekpe (2009), and Zeithaml, Berry, and Parasuraman (1996).

4. Results and analysis

SmartPLS software was used to run the PLS-SEM (Ringle, Wende, & Becker, 2015). A two-step procedure was employed, first estimating the measurement model and then the structural model. The former was used to assess the reliability and validity of the measures, and the latter to test the hypotheses.

4.1. Measurement model

The measurement model was estimated by calculating individual loadings, composite reliability scores, Cronbach's alpha, and average variance extracted (AVE) (see Table 1 for a summary). Individual item loadings were checked against the suggested threshold of 0.7 to assess the reliability of the individual items. Based on this threshold, three items were dropped from the analysis (see Appendix). Table 1 shows that individual item loadings for the final set of the measurement items are above 0.7, indicating adequate internal reliability (Chin, 1998). The internal consistency, measured by composite reliability and Cronbach's alpha values, is higher than 0.9 for all latent variables, indicating high internal consistency (Bagozzi & Yi, 1988; Nunnally & Bernstein, 1994).

The AVE was calculated to assess the convergent validity. AVEs for all the factors were greater than 0.6, indicating that more than 60% of the variance of the indicators could be accounted for by the latent variables. This is considered adequate validity, based on the suggested AVE value of higher than 0.5 (Fornell & Larcker, 1981).

The AVE is also used to assess the discriminant validity to test whether a construct is distinct from other constructs. To determine satisfactory discriminant validity based on Fornell and Larcker's (1981) criteria, each construct should be more highly correlated with its own construct than with other constructs. The results (see Table 2) show that the diagonal elements (the square root of the AVE extracted between the constructs and their measures) are greater than the off-diagonal elements (correlations among constructs), suggesting a reasonable degree of discriminant validity.

4.2. Structural model and hypothesis testing

Results of the structural model are presented in Fig. 3. The final model explains a substantial portion of the variance, with a coefficient of determination (R^2) of 0.582 for trust in products, 0.687 for trust in sellers, and 0.716 for customer engagement as a dependent variable, suggesting a satisfactory level of predictive power. For simplicity, we omitted the insignificant paths in the figure. All the path coefficients and hypotheses are summarized in Table 3.

Utilitarian value ($\beta = 0.497$; $p < .001$) and hedonic value ($\beta = 0.261$; $p < .001$) of live streaming can be seen to have a positive impact on consumer trust in products but not trust in sellers, in support of H1b and H2b but not H1a and H2a. Only symbolic value has a significant direct effect on trust in sellers ($\beta = 0.285$, $p < .001$), supporting H3a. Since symbolic value is less product related than hedonic/utilitarian value (Keller, 1993), we did not find its effect on trust in products, so H3b is not supported. As hypothesized, there is a relationship between trust in products and sellers. Specifically, trust in products is shown to lead to trust in sellers ($\beta = 0.500$; $p < .001$), supporting H4.

We predicted that trust could positively influence customer engagement, but we found only for the effect of trust in sellers ($\beta = 0.224$, $p < .001$), not trust in products ($t = 0.722$), supporting H8a not H8b. As for the effect of perceived value on customer engagement, of the three types of perceived value, only symbolic value is seen to significantly affect customer engagement ($\beta = 0.555$, $p < .001$), supporting H7. There is no direct effect of utilitarian value ($t = 0.608$) and hedonic value ($t = 1.639$) observable on customer engagement, thus H5 and H6 were not supported.

4.3. Indirect and mediating effects

Although there is not seen to be any direct effect of utilitarian and hedonic values, they may exert some effect on customer engagement (Hayes, 2009). Therefore, we further tested indirect effects to examine potentially important mechanisms whereby the three perceived values may influence customer engagement. We followed the process recommended by Nitzl, Roldan, and Cepeda (2016) and conducted multiple mediation analysis in order to examine the role of trust (in products and in sellers) in mediating the effect of perceived value on customer engagement. The bootstrapping procedure with 5000 samples was used to construct and test (percentile and bias-corrected) confidence intervals for indirect effects. Results of indirect/mediating effects are summarized in Table 4.

As Table 4 shows, when trust in products and trust in sellers are introduced into the model, there is no significant direct effect of utilitarian/hedonic value on customer engagement. However, there is a significant indirect effect of utilitarian/hedonic value on customer engagement through both trust in products and trust in sellers (utilitarian value, CI = 0.022 to 0.095; hedonic value, CI = 0.007 to 0.058). Specifically, utilitarian and hedonic values affect customer engagement indirectly through the path from utilitarian/hedonic value to trust in products, then trust in sellers, and finally customer engagement. Trust in products and sellers together fully mediate the effect of utilitarian/hedonic value on customer engagement.

As for symbolic value, which plays a greater, direct influence on customer engagement, there was found to be an indirect effect via only trust in sellers (CI = 0.020 to 0.119), which partially mediates the effect of symbolic value on customer engagement. Overall, there is a significant total effect of hedonic value ($\beta = 0.170$, $p < .01$) and symbolic value ($\beta = 0.632$, $p < .001$) but no total effect of utilitarian value on customer engagement.

5. Discussion

This study examined the role of live streaming, which is the latest selling tool for s-commerce sellers. Its real-time nature provides customers with useful, playful, and meaningful shopping experiences that overcome the drawbacks of conventional online shopping. This study analyzed the relationship between live streaming's value and customer trust and engagement with small sellers. Our findings demonstrated different mechanisms by which utilitarian, hedonic, and symbolic values of live streaming are associated with customer trust and engagement.

The symbolic value was found to be the only value that has a direct

Table 1
Assessment of measurement model.

	Indicator loadings	Standard deviation	*T* statistics	Composite reliability	Cronbach's alpha	AVE	rho_A
Utilitarian value							
UTV01	0.847	0.019	43.565***	0.938	0.923	0.686	0.928
UTV02	0.834	0.021	40.461***				
UTV03	0.834	0.020	41.790***				
UTV04	0.868	0.017	51.859***				
UTV05	0.862	0.015	55.753***				
UTV06	0.830	0.021	39.678***				
UTV07	0.711	0.034	20.773***				
Hedonic value							
HDV01	0.834	0.019	44.203***	0.951	0.942	0.685	0.943
HDV02	0.855	0.019	44.974***				
HDV03	0.854	0.018	47.186***				
HDV04	0.835	0.020	41.503***				
HDV05	0.845	0.022	38.738***				
HDV06	0.854	0.019	45.409***				
HDV07	0.872	0.015	57.404***				
HDV08	0.777	0.029	27.170***				
HDV09	0.709	0.036	19.826***				
Symbolic value							
SBV01	0.820	0.022	36.506***	0.941	0.929	0.639	0.930
SBV02	0.781	0.027	28.924***				
SBV03	0.774	0.034	23.101***				
SBV04	0.836	0.020	41.075***				
SBV05	0.832	0.023	35.902***				
SBV06	0.813	0.023	34.927***				
SBV07	0.767	0.026	30.024***				
SBV08	0.824	0.021	38.958***				
SBV09	0.744	0.033	22.533***				
Trust in seller							
Trust01	0.902	0.015	59.209***	0.961	0.946	0.861	0.946
Trust02	0.952	0.007	129.832***				
Trust03	0.945	0.009	102.061***				
Trust04	0.913	0.013	71.811***				
Trust in product							
Trust05	0.921	0.013	71.672***	0.951	0.923	0.867	0.924
Trust06	0.939	0.010	93.626***				
Trust07	0.934	0.010	89.398***				
Customer engagement							
Engage01	0.796	0.028	28.488***	0.960	0.952	0.750	0.953
Engage02	0.883	0.015	58.607***				
Engage03	0.879	0.018	49.860***				
Engage04	0.913	0.012	75.118***				
Engage05	0.871	0.019	46.279***				
Engage06	0.865	0.022	40.183***				
Engage07	0.883	0.017	51.486***				
Engage08	0.833	0.024	35.294***				

*** $p < .001$.

Table 2
Discriminant validity of the measurements.

		Mean	F1	F2	F3	F4	F5	F6
F1	Utilitarian value	3.549	**0.828**					
F2	Hedonic value	3.269	0.669	**0.828**				
F3	Symbolic value	3.206	0.691	0.790	**0.800**			
F4	Trust in seller	3.157	0.684	0.668	0.704	**0.928**		
F5	Trust in product	3.346	0.726	0.656	0.629	0.779	**0.931**	
F6	Customer engagement	3.123	0.627	0.721	0.819	0.716	0.633	**0.866**

Note: The square root of the AVE of every multi-item construct is shown in bold on the main diagonal.

positive impact on customer engagement—indeed, it actually has a stronger impact than trust in influencing customer engagement. This finding is consistent with prior studies in online engagement that have found that customers who feel connected with and perceive relevance of the stimulus (product/brand) to their interest, needs, value (i.e., customer involvement; Zaichkowsky, 1985) are more likely to exhibit a high level of engagement (Arıkan, 2017; Vivek et al., 2012; Wirtz et al., 2013).

However, our findings revealed that there is no direct effect of utilitarian and hedonic values on customer engagement. This might be because while utilitarian and hedonic values suggest the current value consumers could obtain from sellers, symbolic value also suggests future benefits based on the perceived similarity between the customer and seller/other customers. This finding is consistent with Bianchi and Andrews (2018), who found that perceptions of the usefulness of and enjoyment from social media are not related to consumers' intention to engage with retail brands through social media. Yet, we also found an indirect effect of these values.

Consistent with Jahn and Kunz (2012), who found that fan page engagement is driven by social/brand interaction value whereas functional/hedonic values lead to fan page intensity, which in turn influences fan page engagement, our paper found the indirect effect of utilitarian and hedonic values on customer engagement through customer trust in products and subsequently trust in sellers. Utilitarian value operationalized in terms of authenticity and visualization enables

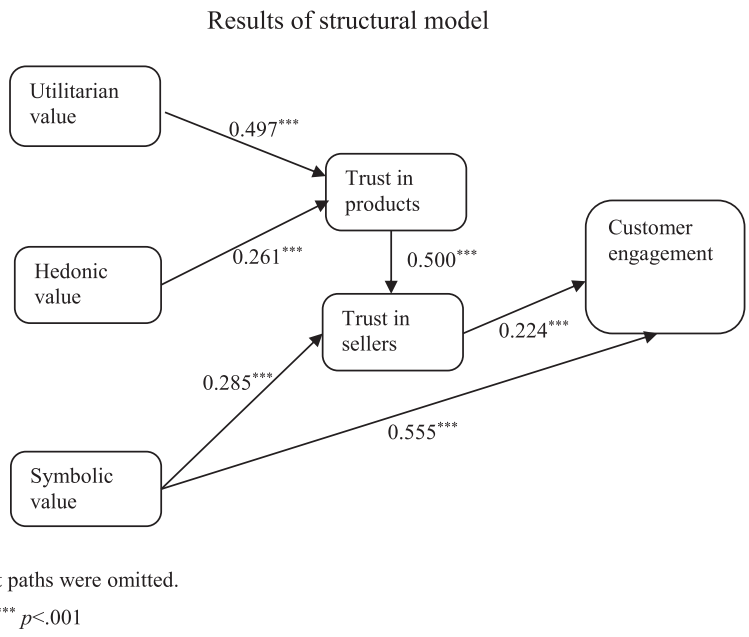


Fig. 3. Results of structural model.
Note: Insignificant paths were omitted.
*$p < .05$; **$p < .01$; ***$p < .001$.

customers to evaluate whether a product fits with their physiological/psychological needs and helps increase customer confidence in products, which further influences trust in sellers and customer engagement respectively. Responsiveness plays a relatively small role, as customers may have alternative channels that allow them to contact and interact with sellers without a time limit. Likewise, the hedonic value of live streaming manifested through pleasure and enjoyment with how products are presented and imagined gave rise to trust in products, and, later, trust in sellers. Without trust in products, hedonic/utilitarian value would not affect customer engagement, but trust in products only is not enough to influence customer engagement. In contrast, symbolic value affects customer engagement both directly and indirectly via trust in sellers, without going through trust in products. This highlights the role of social identification enabled by live video, which can influence customer interaction and participation with the s-commerce seller.

5.1. Theoretical contribution

This study makes several key theoretical contributions. First, it contributes to the online commerce research by being one of the first empirical studies on live streaming shopping, a facility that significantly changes the way online sellers sell their products and communicate with customers. We extend current live streaming studies (Cai et al., 2018; Lu et al., 2018) that describe characteristics of live streaming and consumer motivation to participate in live streaming by examining its perceived value in enhancing shopper's responses.

Second, since most live streamers are small individual sellers, we addressed a gap in the current research by focusing on small sellers, who dominate established brands on the s-commerce platform but are underexamined in the extant research (Hung, Yu, & Chiu, 2018). With regard to small sellers' characteristics in particular, trust becomes more critical for online shoppers, and getting customers to interact and engage with a small business is challenging.

Third, building on consumer value theory and research on consumer engagement, we contributed to research related to trust in online commerce (e.g., Kim & Park, 2013; Kim & Peterson, 2017, using a meta-analysis of 150 studies) by proposing multidimensional perceived value. Previous research has suggested that customer trust in online commerce is largely influenced by a firm's reputation/size,

Table 3
Results of path analysis.

	Coefficient	Standard deviation	T statistics	R^2	Hypothesis result
Utilitarian value → trust in product	0.497	0.062*	8.028***		H1b: supported
Hedonic value → trust in product	0.261	0.083**	3.141***	0.582	H2b: supported
Symbolic value → trust in product	0.079	0.086	0.922		H3b: not supported
Utilitarian value → trust in seller	0.085	0.058	1.455		H1a: not supported
Hedonic value → trust in seller	0.059	0.070	0.845	0.687	H2a: not supported
Symbolic value → trust in seller	0.285	0.075	3.797***		H3a: supported
Trust in product → trust in seller	0.500	0.059	8.492***		H4: supported
Trust in product → customer engagement	0.052	0.072	0.722		H8b: not supported
Trust in seller → customer engagement	0.224	0.065	3.431***		H8a: supported
Utilitarian value → customer engagement	−0.023	0.056	0.411	0.716	H5: not supported
Hedonic value → customer engagement	0.114	0.066	1.715		H6: not supported
Symbolic value → customer engagement	0.555	0.063	8.850***		H7: supported

* $p < .05$.
** $p < .01$.
*** $p < .001$.

Table 4
Indirect and mediating effects.

	Total effect of shopping value on customer engagement		Direct effect of shopping value on customer engagement		Indirect effects of shopping value on customer engagement			
	Coefficient	T statistics	Coefficient	T statistics		Coefficient	Bootstrap 95% CI	
							Percentile	Bias corrected
UV → CE	0.077	1.443*	−0.023	0.404	UV → CE	0.100	[0.033:0.171]	[0.032:0.172]
					UV → TP → CE	0.026	[−0.045:0.095]	[−0.046:0.098]
					UV → TS → CE	0.019	[−0.005:0.049]	[−0.005:0.049]
					UV → TP → TS → CE	0.056	[0.022:0.095]	[0.022:0.096]
HV → CE	0.170	2.566**	0.114	1.669	HV - > CE	0.056	[0.013:0.109]	[0.011:0.106]
					HV → TP → CE	0.014	[−0.025:0.053]	[−0.026:0.053]
					HV → TS → CE	0.013	[−0.017:0.054]	[−0.016:0.054]
					HV → TP → TS → CE	0.029	[0.007:0.058]	[0.008:0.059]
SV → CE	0.632	11.414***	0.555	8.896***	SV → CE	0.077	[0.029:0.140]	[0.030:0.140]
					SV → TP → CE	0.004	[−0.008:0.033]	[−0.009:0.033]
					SV → TS → CE	0.064	[0.020:0.119]	[0.020:0.120]
					SV → TP → TS → CE	0.009	[−0.009:0.033]	[−0.01:0.033]

Notes: UV = utilitarian value, HV = hedonic value, SV = symbolic value, CE = customer engagement, TP = trust in product, TS = trust in seller.
* $p < .05$.
** $p < .01$.
*** $p < .001$.

information/communication quality, system/service quality, design quality, safety and privacy of transactions, perceived usefulness, and word-of-mouth referrals. These antecedents reflect utilitarian values of online commerce that are related to only one dimension of trust (cognitive trust) and do not include reference to affective trust. By including not only utilitarian value but also hedonic and symbolic values, our model provides a more complete picture of trust.

Fourth, our framework extends prior research (e.g. Hajli, 2015; Lu et al., 2016; Yahia et al., 2018) on online trust that has examined a single dimension of trust (usually, trust in the platform or firm), which is rather limiting. In this paper, we distinguished trust in products from trust in sellers, and found that trust in sellers (but not trust in products) is directly associated with customer engagement. More importantly, the antecedents to the two kinds of trust are different. Utilitarian/hedonic value is associated with trust in products while symbolic value is associated with trust in sellers. By considering multiple dimensions of value and trust, our findings reveal multiple routes through which small online sellers can build customer engagement—from symbolic value to trust in sellers and engagement, or to engagement directly; or from utilitarian/hedonic value to trust in products and trust in sellers and then engagement.

Finally, as we focused on sellers that sell through Facebook Live, and many of them were small resellers that do not sell their own products, engaging consumers becomes challenging, as consumers may be less connected with resellers than they are with the brand/company (Bianchi & Andrews, 2018; Chang & Fan, 2017). Prior research on customer engagement is typically investigated in the contexts of brand community (Lin, Li, Yan, & Turel, 2018; Simon & Tossan, 2018; Wirtz et al., 2013), word of mouth/review (Herrando, Jiménez-Martínez, & Martín de Hoyos, 2017), or co-creation (Carlson, Rahman, Voola, & De Vries, 2018; Kao, Yang, Wu, & Cheng, 2016), with the locus of engagement set on brand/company (Dessart, Veloutsou, & Morgan-Thomas, 2015; Hollebeek, Glynn, & Brodie, 2014). This study therefore adds to the research on customer engagement by investigating factors that could drive consumers to engage with and purchase from small s-commerce sellers that are underexamined in the extant research (Bianchi & Andrews, 2018).

5.2. Managerial implication

From a managerial perspective, this study provides insights into how s-commerce sellers, especially small sellers with low brand awareness and reputation, can apply the live streaming technology to attract and retain customers. The real-time nature of live streaming allows the seller to reveal his/her identity. As a customer can view who a seller is and perceive his/her face and the background, the customer might expect that a seller who exposes him-/herself to the public will be less likely to commit fraud. In addition to such function of live streaming, sellers should carefully design atmospheric elements so that customers perceive utilitarian, hedonic, and symbolic values from shopping via live streaming, and in turn can influence customer responses.

The way in which a seller presents their product should help the customer be able to visualize and understand how the product will be used in a close-to-real store situation. Employing high-quality equipment can help in producing superior video that allows customers to see and visualize products more clearly. In addition, the seller should offer verbal explanations and provide immediate responses to customer questions about product information as well as non-verbally (e.g., acting and emotion expressed facially) expressing sensory information about product. However, sellers have yet to collect feedback and to use it to improve product range and service in response to trends and customer needs. Collecting and responding to customer feedback and concerns should further increase the utilitarian value of live streaming-based s-commerce and cultivate customer loyalty.

Watching live videos usually takes more time than browsing still pictures of products, so presenters need to keep customers engaged and reduce their boredom through the inclusion of enjoyable and entertaining activities relating to products (e.g., product-demonstration shows with a sense of adventure and fantasizing) or incentives (e.g., games, flash sales). These activities can create positive emotions that will induce affective trust in respect of the products and then in the sellers. The challenge lies in creating content to excite customers continuously.

The strongest and ongoing impact on customer engagement arises from symbolic value. Care must be taken in designing and presenting characteristics of the seller (expressed through verbal expression, appearance, and posture) and background that will signal social status and influence trust building and engagement. The seller should demonstrate characteristics that are likable and similar to that of the target customers, and fit with the brand positioning. They might emphasize their similarity with customers and reassure them that products offered will fit their personal needs and the group characteristics. In addition, customer identification with sellers and a sense of belonging

to the seller's page can be strengthened by providing rich experiences or interactions that can create an idea of friendship. For instance, by recording and analyzing customer comments, sellers can recognize customers and remember customer preferences. During the broadcast time, they may address individual customers by their name and suggest products that suit individual interests and requests. They may ask a live streaming broadcast's participants to comment on and vote for upcoming products or rewards. Such activities create symbolic value that directly impacts customer trust in the seller and engagement.

Our findings demonstrate the mechanism of how live streaming can create shopping value that increases customer trust, which in turn leads to consumer decisions to purchase and engage with sellers more. In addition to the main mechanism driven by symbolic value, sellers who may not have attractive personality traits or traits similar to their target customers can compensate by providing customers with confidence in products through ample details and creative and entertaining presentations about the product or productions. Live streaming can take place anywhere and at any time, so sellers can also broadcast in interesting places in order to better attract customers.

5.3. Limitations and future research

Since live streaming is a relatively new tool that is still in its infancy for both practitioners and academics, additional research is needed to fully understand and make use of it. The present study was limited to fashion products, which are hedonic items, and thus results might be different if utilitarian products were examined instead. In particular, it is possible that, in different product categories, such as automobile parts, furniture, or IT gadgets, the type and number of shopping values that have a significant impact on different types of trust and customer engagement could vary. Additionally, this study featured data collected offline from customers in shopping centers in Bangkok who had experienced watching Facebook Live for selling purposes, but future studies could extend the current research scope to include other platforms (e.g., Instagram, Line, Twitter, Taobao) and other countries, especially in Western contexts. Shobeiri, Mazaheri, and Laroche (2018) found that the experiential value on e-retailing websites influence North American versus Chinese customers differently. Therefore, components of live streaming value and the process of how live streaming value influences consumer trust and engagement can vary across culture. Around 30% of our study's respondents indicated that they had purchased through live streaming; future studies might collect more samples of customers with purchase experiences and compare their attitudes and responses with those of non-buyers. Also, this paper focuses on small sellers only, but it would be fruitful to understand the use of live streaming by sellers at different levels (small sellers versus large firms) and its effect on the firms' outcomes. Finally, our model could be extended by incorporating additional antecedents or moderators such as personality traits of customers or sellers.

Appendix A

	Measurement scales
Utilitarian value	
UTV01	1. Sellers that sell through Facebook Live seem like genuine merchants.
UTV02	2. Products sold through Facebook Live seem genuine to me.
UTV03	3. Products sold through Facebook Live appear to be authentic.
UTV04	4. The way a product is presented via Facebook Live (e.g., a seller's try-on) helps me to visualize the appearance of the product on a real figure.
UTV05	5. The way a product is presented online gives me as much sensory information about the product as I would experience in a store.
UTV06	6. I am able to easily see and visualize the product as it appears on Facebook Live.
UTV07	7. Via Facebook Live, the online seller answers my questions immediately.
UTV08*	8. The online seller asks and gathers customer feedback directly via Facebook Live.
UTV09*	9. I feel that I can ask the seller selling via Facebook Live to find products I want.
UTV10*	10. Products sold through Facebook Live tend to be up-to-date and on-trend.
Hedonic value	
HDV01	11. Shopping through Facebook Live is entertaining.
HDV02	12. I enjoy shopping via Facebook Live.
HDV03	13. While shopping via Facebook Live, I feel a sense of adventure.
HDV04	14. I am able to do a lot of fantasizing while watching Facebook Live.
HDV05	15. While shopping through Facebook Live, I am able to forget my problems.
HDV06	16. Shopping through Facebook Live is a way of relieving stress.
HDV07	17. Shopping via Facebook Live is a thrill for me.
HDV08	18. I enjoy getting a great deal when I shop via Facebook Live.
HDV09	19. Activities (e.g., flash sales, freebies) on Facebook Live get me excited.
Symbolic value	
SBV01	20. I feel like a smart shopper when I shop via Facebook Live.
SBV02	21. Shopping through Facebook Live makes me feel as though I'm trendy.
SBV03	22. I am eager to tell my friends/acquaintances about this live shopping.
SBV04	23. I feel that I can identify with the seller.
SBV05	24. I feel that the seller has the same taste as me.
SBV06	25. I feel that the seller recognizes me and remembers my preferences.
SBV07	26. I can find products that are consistent with my style when I shop via Facebook Live.
SBV08	27. I feel that I belong to the customer segment of the seller's Facebook page.
SBV09	28. I can infer social acceptance of products from other customers' comments during the live stream.
Trust in seller	

Trust01	29. I believe in the information that the seller provides through live streaming.
Trust02	30. I can trust Facebook sellers that use live streaming.
Trust03	31. I believe that Facebook sellers who use live streaming are trustworthy.
Trust04	32. I do not think that Facebook sellers who use live streaming would take advantage of me.
Trust in product	
Trust05	33. I think the products I order from Facebook Live will be as I imagined.
Trust06	34. I believe that I will be able to use products like those demonstrated on Facebook Live.
Trust07	35. I trust that the products I receive will be the same as those shown on Facebook Live.
Engagement	
Engage01	36. I spend more time on pages that have live video.
Engage02	37. I would become a fan and a follower of a page that uses Facebook Live.
Engage03	38. I would be likely to try and keep track of the activities of a seller that uses Facebook Live.
Engage04	39. I am likely to revisit the seller's page to watch their new live videos in the near future.
Engage05	40. I am likely to recommend sellers that use Facebook Live to my friends.
Engage06	41. I encourage friends and relatives to do business with a seller that uses Facebook Live.
Engage07	42. In the near future, I will definitely buy products from a seller that uses Facebook Live.
Engage08	43. I consider a seller that uses Facebook Live to be my first choice when buying this kind of product.

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