


How Social Commerce Characteristics Influence Consumers' Online Impulsive Buying Behavior in Emerging Markets

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ABSTRACT

With the rapid development of social commerce, consumers may easily purchase products they did not plan to purchase or do not really need when they surf social networking websites and browse posts. However, the literature on social commerce pays little attention to the extant knowledge of online impulse buying behavior (OIBB), especially in emerging markets. This study investigates the role of social commerce characteristics in shaping consumers' online impulsive buying behavior. Data was collected from 240 Vietnamese consumers with experience in online shopping. Using a Partial Least Square 3.0 analysis, the results indicated that socialization and availability of information significantly influence the urge to buy impulsively, but do not influence impulsive behavior. In contrast, personalization and product selection influence both the urge to buy impulsively and impulsive behavior. The findings also indicated that gender and age do not impact online impulsive buying behavior. Study outcomes offer useful insights to both academicians and practitioners.

KEYWORDS

Emerging Markets, Impulsive Buying Behavior, Information, Personalization, Product Selection, Social Commerce, Socialization, S-R Theory

INTRODUCTION

Consumers often act impulsively when making online decisions. Online shoppers have easy access to products, ease of purchasing, a lack of social pressures, and an absence of delivery efforts. Therefore, about 40% of all online expenditures occur as a result of impulsive buying (Verhagen & Van Dolen, 2011a). With the rapid development of social commerce, consumers, when surfing social networking websites and browsing posts, such as Facebook, Twitter, and Pinterest, may easily purchase products they had not planned on purchasing or that they do not really need. Consumers can find interesting links to shopping websites on these platforms. Under these circumstances, impulsive buying is unavoidable, especially with regard to social commerce (Huang, 2016). Surprisingly, the literature

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on social commerce pays little attention to the extant knowledge of online impulse buying behavior (OIBB), especially in emerging markets.

Social commerce (s-commerce) has changed the role of the customer as well. Consumers become the central focus for companies when they can interact, get trustworthy advice, search and purchase goods and services, and hence become the uniqueness of s-commerce (Kim & Park, 2013). However, many questions on how customers behave in social commerce environments remain practically unanswered (Hajli, Sims, Zadeh, & Richard, 2017; Li, 2017). To the authors' knowledge, there are several studies about online impulsive buying behavior in social commerce. For instance, Leong et al. (2018) investigated the effects of utilitarian-, hedonic-, and trust-motivations on participation that influences the urge to purchase and, ultimately, impulsive purchasing in social commerce environments. Chung et al. (2017) examined the impact of shopping value on the urge to buy restaurant products and services. However, this present study differs from the extent literature in a significant way: it is focused on how social commerce characteristics shape online impulsive buying behavior.

Additionally, considering the effect of other factors on consumer behavior, one should pay attention to the conditions of local market and diversity cultural forces, which could influence the way consumers behave when impulse buying (Yu & Bastin, 2010). However, impulsive buying has been much studied in the context of Western countries, while the Asian context has largely remained oblivious (Badgaiyan & Verma, 2015). Impulsive buying behavior is of specific interest in emerging economies, such as like India (Mittal, Sondhi, & Chawla, 2015). Several researchers have indicated that Asian consumers may engage in less impulsive purchasing than do consumers in Western countries (Hoyer et al., 2012). Yu and Bastin (2010) indicated that impulse buying in emerging markets would contribute to the literature because Southeast Asian countries are regions that have the most active social media users in the world. Vietnam represents an emerging country and is ranked seventh among the countries with the largest number of Facebook users and the highest e-commerce adoption rate in Southeast Asia (Tung, 2017). However, the behavior of Vietnam consumers is rarely understood. Therefore, another emerging research gap is to empirically investigate the influence of predictor variables on impulse buying within the Vietnam context, which can significantly contribute to the existing literature of social commerce.

The originality of the current study rests on answering the limitations by: (1) investigating the influences of unique characteristics on OIBB and, (2) analyzing the relationship between the urge to buy impulsively and impulsive buying behavior within emerging markets. Consequently, this study seeks answers to the research gaps.

Accordingly, this study is posed to examine the following research question: "How do social commerce characteristics influence consumers' online impulsive buying behavior in emerging markets?" To this end, the primary goal of this study is to provide a better understanding of factors of the social commerce environment, which determine online impulsive buying behavior (OIBB). Based on the Stimulus–Response (S-R) theory (Mehrabian & Russell, 1974), the authors' identified a set of characteristics of social commerce platforms (socialization, personalization, product selection, and information availability) and hypotheses on how they may shape OIBB. Additionally, this study attempts to empirically investigate the OIBB of Vietnamese consumers and to extend the existing research on online impulse buying, especially in the Vietnamese context.

The study's theoretical contributions are twofold. First, it confirms the role of social commerce characteristics for testing online impulsive buying behavior. This answers the call of Li (2017) for publications aimed at studying the process and uniqueness of how consumers behave impulsively in social commerce environments. Despite this call, there has not yet been a similar study published. Therefore, this research study explores how social commerce environments influence OIBB. Second, this study provides guidelines for marketing managers who use social media platforms as strategy tools when entering developing countries.

LITERATURE REVIEW

Definition of Constructs

In the S-R theory, the stimuli are the features of the online environment that customers interact with. Stimuli (S) are social commerce characteristics that affect consumers' response in this study. Previous studies identified various characteristics of social commerce environments based on the motivation theory and the unified gratification theory (UGT) (Mikalef et al., 2013; Lin & Lu, 2011). Similarly, consistent with the typology of Mikalef et al. (2017) and Zhang et al. (2014), the authors considered four social commerce characteristics, namely, information availability, personalization, product selection (utilitarian motivations), and socialization (hedonic motivation). These characteristics capture various aspects of social commerce platforms that facilitate user gratification (Mikalef et al., 2017).

Firstly, socialization is described as the ability to participate in interactions among consumers during the browsing of products on social commerce platforms. Consumers are enabled to replicate the experience of socializing in a synchronous manner (Mikalef et al., 2017). The activities of socializing on social commerce websites has been made much more comfortable and more user-friendly, so that users can communicate with friends and share experiences relating to pages/products, or message threads in products or on brand communities (Hajli, 2015; Osorio & Papagiannidis, 2019).

Another interesting characteristic of social commerce platforms is personalization. The authors defined personalization as the ability to provide consumers with customized advertisement based on their preferences. Online retailers present advertisements of new products or update the latest trends that are in line with the recommended content and user interests (Zhang et al., 2014).

Additionally, information availability is one of the key characteristics in online shopping. It is defined as the amount products and/or service information available on the social commerce platforms (Mikalef et al., 2013). Wang and Doong (2010) stated that the accuracy and amount of information available about products or services influences consumers' purchasing decisions. Information content is an important resource for online consumers because they recognize their need for particular goods or services based on need-related information provided on social commerce platforms, which influences their purchasing decision (Hajli, 2015; Aydin, 2019).

Last but not least, the wealth of information about a variety of products or services is a highlighted feature of online retailing environments. In this study, product selection is the degree to which users believe that there is a range of available products on social commerce platforms (Mikalef et al., 2017). With a wealth of information provided, consumers will spend considerable time looking at various products, which leads to positive feelings, and they tend to review the page content more intensively (Hsu & Tsou, 2011; Huang, 2016).

Online impulsive buying behavior, as an unplanned purchasing decision, consists of two dimensions, namely, the urge to buy impulsively and the actual impulsive buying behavior (Chan, Cheung, & Lee, 2017). The urge to buy impulsively is a state of desire that is experienced upon encountering an object in the shopping environment (Badgaiyan & Verma, 2015). Additionally, impulse buying is defined as "a sudden and immediate purchase with no pre-shopping intentions either to buy the specific category or to fulfill a specific buying task" (Beatty & Ferrell, 1998, p. 170). The relationship between the urge to buy impulsively and the actual impulsive buying behavior has been debated. Previous scholars indicated that impulsive buying behavior happens after experiencing an urge to buy (Rook, 1987; Beatty & Ferrell, 1998), whereas more recent scholars argued that the urge to buy did not always result in actual impulsive buying (Badgaiyan & Verma, 2015; Shen & Khalifa, 2012).

Consequences, the important question remains as to how various social commerce characteristics influence the constructs "urge to buy impulsively" and "impulsive buying behavior." Therefore, this study refers to the urge to buy impulsively, and actual impulsive buying behavior refers as response variables.

HYPOTHESIS DEVELOPMENT

Impulsive Buying Behavior and Urge to Buy Impulsively

Researchers Beatty and Ferrell (1998) explored an important distinction needs to be made relating to the construct of the “urge to buy impulsively” (desire) and “impulsive buying behavior” (behavior). They stated that the spontaneous urge to buy impulsively is a state of desire that is experienced before actually performing an impulse buying behavior. The more consumers experience the urge, the more they are more likely to make an impulse purchase. The relationship between the urge to buy impulsively and impulsive buying has been described as a chain effect at the response stage in studies done of both offline and online. Badgaiyan and Verma (2015) provided evidence regarding the relationship of the urge to buy impulsively and impulsive buying behavior. When consumers browse longer, they experience more and more urges and, in turn, increase their likelihood of engaging in an impulse purchase. Therefore, the following hypothesis is introduced:

Hypothesis One: Urge to buy impulsively positively affects impulsive buying behavior.

Effects of Social Commerce Characteristics (S) on Urge to Buy Impulsively and Impulsive Buying Behavior

Social commerce environments provide platforms on which consumers can socialize with peers. The foremost motives for people to go shopping are social interaction and enjoyment (Kim & Eastin, 2011). In a social commerce context, consumers are able to share information and the shopping experience with those who have the same interests (Wolfenbarger & Gilly, 2001). During socialization, consumers build their network to receive benefits from social activities while shopping (Zhang et al., 2014). They are more likely to interact with others who have in depth knowledge about brands and products. When the frequency of interaction increases, they may find social commerce to be more enjoyable and involving (Pagani et al., 2011). This will lead consumers to search for more information about a product they are interested in purchasing or to imitate other consumers’ styles, and then may ultimately impulsively buy (Mikalef et al., 2017; Xiang et al., 2016). Previous studies suggested that impulsive buying behavior is influenced by a consumer’s positive emotions (Weinberg & Gottwald, 1982). Therefore, consumers who prefer online shopping as a mean of social interaction and a way to relax, have a higher tendency to make an impulse purchase from the Internet (Ozen & Engizek, 2014). Thus, the following hypothesis is proposed:

Hypothesis Two: Socialization positively affects (a) urge to buy impulsively, and (b) impulsive buying behavior.

Personalization is a unique medium for offering advertisements that fit consumers’ interests (Park, Shin, & Ju, 2014). Based on consumers’ personal information when they join social media websites or consumers’ navigation history exchanged between sites, online retailers can directly advertise to target customers on a one-to-one basis. Consumers can easily find out about products and services based on their location or their historical information (e.g. profiles, prior interaction), which is suggested by social media platforms.

Saad and Metawie (2015) indicated that impulsive buying is associated with feelings and psychological motivations instead of thinking and functional benefits. Consumers with positive moods have reduced decision complexity and shorter decisions times, which lead to facilitating a greater desire to reward themselves and, thus, stimulates impulse buying. According to the literature on impulsive behavior, one of the main reasons that consumers tend to buy impulsively and impulse buy is the retailers’ up and cross-selling strategies (Chang et al., 2011). In a social commerce context, online vendors apply this strategy through product recommendations, suggested coordinated items,

sale items, and new products based on consumers' preferences. Product recommendations impact consumers' sense of vision and if they are easily stimulated by product attributes, they will buy products impulsively (Xiang et al., 2016). The following hypothesis is developed based on the literature:

Hypothesis Three: Personalization positively affects (a) the urge to buy impulsively, and (b) impulsive buying behavior.

Consumers are not able to touch products on the Internet; consumers often want to acquire full information (e.g. size, color, design, and fabric) before purchasing specific products to substitute for a more sensory experience, which can lead to consumer impulse purchases (Park et al., 2012). In order to collect information, consumers may actively web browse to determine a product's desirability. If social commerce platforms do not provide enough information about a consumer's needs, it can break the consumer's mood, and then the consumer will tend to find an alternative way. In contrast, the availability of information that meets a consumer's needs makes the consumer more likely to enjoy the shopping experience. Thus, the consumer will actively engage in more exploratory browsing on the web, which results in more unplanned purchases (Xiang et al., 2016). If the information provided is more detailed and specific, then consumers tend to focus their attention. Thus, the following hypothesis is proposed:

Hypothesis Four: Information availability positively affects (a) the urge to buy impulsively, and (b) impulsive buying behavior.

Consumers tend to shop online when their product expectations are met or exceeded (Fram & Grady, 1995). Social commerce sites allow marketers to display their full range of products without having to stock them in their inventory (Mikalef et al., 2017). With a wealth of information, consumers will spend considerable time looking at products, which leads to positive feelings involving an urge to buy (Huang, 2016). Additionally, a wide range of product categories enhances shopping efficiency because of the increased access to comparable items and it enables better product choices. Park et al. (2014) indicated that variety of selection in shopping malls encourages consumers to browse. When consumers spend more time browsing for products or service, it leads to encountering more stimuli, which increases the likelihood of impulsive buying (Verhagen & Van Dolen, 2011b). The hypothesis follows:

Hypothesis Five: Product selection positively affects (a) the urge to buy impulsively, and (b) impulsive buying behavior.

The Control Variables: Age, Gender and Income

Age, gender, and income have been considered as control variables regarding to both the "urge to buy impulsively" and "impulsive buying behavior." First of all, studies have revealed that consumers' impulsive behaviors are related to gender. Male and female consumers have different social roles and personality factors that affect the act of consuming. Studies indicated that women are more emotionally and psychologically rooted than men, suggesting that they are more susceptible to impulse buying (Coley & Burgess, 2003). In this regard, Ghani et al. (2011) found that there was no significant difference between males and females when it came to impulse buying, and that men and women had the same level of susceptibility to impulse purchases. In contrast, Mai et al. (2003) stated that men were more impulsive in purchasing as compared to women. Thus, it can be safely hypothesized that:

Hypothesis Six: Gender is moderated significantly related to (a) the urge to buy impulsively, and (b) impulsive buying behavior.

Interestingly, the factors that have been linked to impulse buying are also likely to be influenced by age. Santini et al., (2017) believed that young consumers look for products that satisfy their needs, increasing their desire to purchase. In addition, young consumers can be affected by their peers much of time, which leads them to increase their impulse buying. Badgaiyan and Verma (2015) explained that young consumers have less control over their emotions; therefore, they have higher impulsive buying tendencies than older consumers. It is thus, hypothesized that:

Hypothesis Seven: Age is significantly related to (a) the urge to buy impulsively, and (b) impulsive buying behavior.

RESEARCH METHOD

Data Collection

This study employed an online survey questionnaire for data collection. The target social networking website was Facebook. Furthermore, the online survey excluded respondents who did not have previous experience with Facebook commerce. The previous studies identified Generations Y as the target users of social media (Nadeem, Juntunen, & Juntunen, 2017). Therefore, the ages of the target respondents were 18 to 35. The link to the questionnaire was posted on Facebook. Initially, a pretest was conducted for the scale. Two academic experts carefully examined the translation, wording, structure, and content. Their useful feedback was used to improve the scale to ensure that initial reliability and validity were at acceptable levels.

After the questionnaire was finalized, a pilot test was conducted with 80 respondents. The final questionnaire was distributed in 2019 over a period of one month. A total of 268 respondents answered the questionnaire. There were 28 responses discarded because they had no experience purchasing on Facebook or they failed to answer a question, resulting in a final sample consisting of 240 valid responses. Most respondents were female (70.4%). In total, 30.4% of the respondents were between 18 and 24 years old. A second group included respondents between 25 and 29 years of age (45%), followed by a group of respondents between 30 and 35 years of age (24.6%) (see Table 1).

Measures

The measurement for the construct was adapted from the extant literature and revised to suit the context of social commerce. Four constructs of social commerce characteristics (e.g. socialization, personalization, information availability, product selection) were adapted from To et al. (2007) and Mikalef et al. (2013, 2017). The scale for “urge to buy impulsively” was adapted from Verhagen and Van Dolen (2011). The last scale, which is “impulsive buying behavior,” was adapted by Badgaiyan and Verma (2015). All items were measured using a seven-point Likert scale ranging from (1) “strongly disagree” to (7) “strongly agree.”

Common Bias Method

To determine the presence of a common method variance bias among the proposed variables, the authors tested for common-method variance, employing Harman’s single factor test. By loading all items onto one factor, the exploratory factor analysis indicated that items do not belong to one single factor, excluding the possibility of common-method bias.

DATA ANALYSIS AND RESULTS

In order to test the hypothesis, Smart PLS 3.0 M3 software was used. There were two main steps: the evaluation of measurement, and the evaluation of the structural model.

Table 1. Sample characteristics

| | Characteristics | Frequency (n=240) | Percent (%) |
|---|-----------------------|-------------------|-------------|
| Gender | Male | 71 | 29.6 |
| | Female | 169 | 70.4 |
| Age | 18-24 | 73 | 30.4 |
| | 25-29 | 108 | 45 |
| | 30-35 | 59 | 24.6 |
| Education level | High school and lower | 3 | 1.3 |
| | College | 19 | 7.9 |
| | Bachelor | 146 | 60.8 |
| | Graduate | 72 | 30 |
| Occupation | Worker | 83 | 34.6 |
| | Business | 25 | 10.4 |
| | Household | 4 | 1.7 |
| | Employee | 52 | 21.7 |
| | Student | 66 | 27.5 |
| | Others | 10 | 4.2 |
| Frequency purchasing on Facebook | <= 1 time a week | 18 | 7.5 |
| | Several times a week | 22 | 9.2 |
| | <= 1 time a month | 87 | 36.3 |
| | Several times a month | 113 | 47.1 |
| Facebook usage frequency | <=1 time a day | 14 | 5.8 |
| | Many times a day | 218 | 90.8 |
| | <= 1 time a week | 7 | 2.9 |
| | Several times a week | 1 | 0.4 |
| Which products you often purchase on Facebook | Fashion | 209 | 87.08 |
| | Cosmetic | 144 | 60 |
| | Electronic | 76 | 31.67 |
| | Travel | 32 | 13.33 |
| | Food | 140 | 33.6 |
| | Others | 16 | 6.67 |

Measurement Model

To test the reliability and validity of the latent variables, a two-step approach was employed. In the first step, an exploratory factor analysis (EFA) was conducted for initial evaluation of the following measurement scales: socialization, personalization, product selection, and information availability. A principal component analysis and VARIMAX rotation were employed for factor structure identification because the authors assumed some correlation between the factors in the model. The Kaiser-Meyer-Olkin (KMO) statistics were 0.881, indicating that the data was satisfied for factor analysis. As shown in Appendices 1, all indicator loaded on the intended factors and were higher than 0.6.

In the second step, the authors examined the reliability and validity of the instrument. Table 2 lists the Cronbach's alpha values, the average variance extracted (AVE), composite reliability (CR), and factor loading. As shown in the table, all the constructs have composite reliability and Cronbach's alpha is higher than 0.7, suggesting the constructs' reliability (Hair et al., 2013). For construct validity, both convergent validity and discriminant validity were examined. Convergent validity was evaluated by testing both the average variance extracted (AVE) and indicator loadings. All AVE values were higher than the recommended level of 0.5. The standard loadings of all items were above the desired of threshold of 0.7 (Fornell & Larcker, 1981), as seen in Table 2.

Table 2. Items and scales sources

| Items | Factors Loading | Cronbach Alpha | Composite Reliability | AVE |
|----------------------------------|-----------------|----------------|-----------------------|-------|
| Socialization | | | | |
| SC1 | 0.885 | 0.836 | 0.902 | 0.755 |
| SC2 | 0.925 | | | |
| SC3 | 0.792 | | | |
| Personalization | | | | |
| PER1 | 0.866 | 0.831 | 0.899 | 0.748 |
| PER2 | 0.893 | | | |
| PER3 | 0.834 | | | |
| Product Selection | | | | |
| PS1 | 0.863 | 0.849 | 0.909 | 0.768 |
| PS2 | 0.873 | | | |
| PS3 | 0.893 | | | |
| Information Availability | | | | |
| INF1 | 0.895 | 0.821 | 0.893 | 0.736 |
| INF2 | 0.907 | | | |
| INF3 | 0.765 | | | |
| Urge to buy impulsive | | | | |
| UPL1 | 0.853 | 0.772 | 0.87 | 0.785 |
| UPL2 | 0.865 | | | |
| UPL3 | 0.923 | | | |
| UPL4 | 0.901 | | | |
| Impulsive buying behavior | | | | |
| IPL1 | 0.901 | 0.908 | 0.936 | 0.697 |
| IPL2 | 0.932 | | | |
| IPL3 | 0.639 | | | |

Discriminant validity was assessed using (1) Fornell-Larcker and (2) cross-loading criteria. Table 3 presents the square root of the AVE in bold along the diagonal, verifying the condition of being higher than the correlation between constructs (Fornell & Larcker, 1981). The heterotrait–monotrait

Table 3. Assessment of discriminant validity

| Constructs | INF | PER | PL | PS | SC | UPL |
|--------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Information Availability (INF) | 0.859 | 0.683 | 0.578 | 0.636 | 0.624 | 0.578 |
| Personalization (PER) | 0.534 | 0.865 | 0.679 | 0.616 | 0.661 | 0.619 |
| Impulsive Behavior (PL) | 0.467 | 0.539 | 0.840 | 0.676 | 0.621 | 0.800 |
| Product Selection (PS) | 0.536 | 0.518 | 0.555 | 0.876 | 0.641 | 0.591 |
| Socialization (SC) | 0.526 | 0.552 | 0.510 | 0.544 | 0.869 | 0.579 |
| Urge to buy impulsive (UPL) | 0.504 | 0.539 | 0.699 | 0.521 | 0.506 | 0.891 |

ratio (HTMT) was evaluated to determine the discriminant validity. The critical threshold for the HTMT was 0.85. The HTMT should be less than 0.85 in order to establish discriminant validity (Henseler et al., 2015).

HYPOTHESIS TESTING: STRUCTURAL EQUATION MODELING

After testing the measurement validity and reliability, the authors tested the proposed hypotheses using a bootstrap resampling method with 5000 sub-samples (Hair et al., 2014). The findings are shown in Table 4. The model explains a 45.8% of variation in the “urge to buy impulsively” and 57.3% in “impulsive buying behavior.” First, “urge to buy impulsively” was found to be statistically significant in explaining impulsive buying behavior, with $p > 0.001$, thus supporting hypothesis H1.

Table 4. Summary of results related to hypotheses testing

| | Hypothesis | t-Value | β-Value | Decision |
|-----|--|---------|----------|---------------|
| H1 | Urge to buy impulsive → Impulsive behavior | 7.516 | 0.000*** | Supported |
| H2a | Socialization → Urge to buy impulsively | 2.242 | 0.025** | Supported |
| H2b | Socialization → Impulsive behavior | 1.512 | 0.131 | Not supported |
| H3a | Personalization → Urge to buy impulsively | 3.520 | 0.000*** | Supported |
| H3b | Personalization → Impulsive behavior | 2.357 | 0.018** | Supported |
| H4a | Product Selection → Urge to buy impulsively | 3.114 | 0.002** | Supported |
| H4b | Product Selection → Impulsive behavior | 3.237 | 0.001*** | Supported |
| H5a | Information availability → Urge to buy impulsively | 2.516 | 0.012** | Supported |
| H5b | Information availability → Impulsive behavior | 0.139 | 0.889 | Not supported |
| H6a | Gender → Urge to buy impulsively | 0.680 | 0.05 | Not supported |
| H6b | Gender → Impulsive behavior | 0.167 | 0.013 | Not supported |
| H7a | Age → Urge to buy impulsively | 1.071 | 0.076 | Not supported |
| H7b | Age → Impulsive behavior | 0.781 | 0.059 | Not supported |

Second, the effect of socialization and information availability on urge to buy impulsively were found to be statistically significant, supporting hypotheses H2a and H5a; however, both effects of socialization and information availability on impulsive buying behavior were found to be not statistically significant, and did not support hypotheses H2b and H5b.

Thirdly, personalization and product selection were found to influence both the “urge to buy impulsively” and “impulsive buying behavior,” supporting hypotheses H3a, H3b, H4a and H4b. (See Table 4).

Additionally, with regard to the control variables, the results indicated that the construct “urge to buy impulsively” and “impulsive buying behavior” were found insignificantly related to both age and gender; therefore, hypotheses H6ab and H7ab were not supported.

Discussion of Findings

The positive relationship between the urge to buy impulsively and actual impulsive buying behavior was demonstrated in prior studies (Beatty & Ferrell, 1998; Badgaiyan & Verma, 2015). This present study shows a consistent result confirming this positive relationship. That is to say, the former is a desire for impulse buying and the latter fulfills this desire. More interestingly, it must be noted that even if the felt urge to buy impulsively turns out to be necessarily preceding the stage of impulsive buying, the actual impulsive buying behavior may not happen. The urge to buy impulsively is an emotional state for having impulsive buying behavior (Verhagen & Van Dolen, 2011).

Socialization was found to impact the urge to buy impulsively. Socialization reflects interactions among consumers using technology. In the social commerce setting, consumers are able to replicate the experience of socializing in a synchronous manner (Mikalef et al., 2017). The activities of socializing over social commerce websites has been made much easier and more user-friendly because users can communicate with friends, share experiences relating to pages and products, or message threads in products or on brand communities (Hajli, 2014). This finding is consistent with Huang’s (2016) study that stated that friends’ comments have a considerable influence on consumers’ desires to buy something. In contrast, socialization was found to be an insignificant influence on consumers’ impulsive buying behavior. This result is consistent with the study of Wang and Xiao (2009, p. 4), which stated that impulse purchasing is “an immediate experience, often concurrent with a feeling of excitement and urgency.”

Similarly, information availability has a significant effect on the urge to buy impulsively, but has an insignificant effect on impulsive buying behavior. The results of this present study revealed that consumers who had more product-related information available to them were more likely to have the desire purchase. This is consistent with Chen et al.’s (2016) study, which indicated that textual information quality influences the “urge to purchase impulsively.” Information availability reflects service quality and time savings, which have a positive influence on the urge to purchase (Leong et al., 2018). However, this characteristic of social commerce environments does not affect impulse purchasing. Thus, overwhelming users with unnecessary information will not influence their impulsive buying behavior. Mikalef et al. (2017) confirmed that the amount of available information did not affect consumer purchase intentions or electronic word of mouth (eWOM) intention.

Secondly, personalization and product selection positively and significantly influences both the urge to buy impulsively and impulsive buying behavior. The essence of personalization is confirmed in social commerce environments because the environment provides only and exactly what each customer wants at the right time. In social commerce environments, this function becomes more efficient when e-retailers have the very best understanding of the consumers’ needs based on those consumers’ historical searching, or the information consumers have provided on a specific platform. Consumers not only feel the urge to purchase impulsively, but also to engage in impulsively behavior.

Meanwhile, product selection would influence consumers’ desires because e-retailers have enhanced shopping efficiency, which has provided changes and variety, resulting and in a relief from boredom. Offering a variety of products has a direct and positive effect on impulsive buying behavior. A similar idea was suggested by Park et al.’s (2011) study wherein results revealed a direct and negative effect of product selection on impulsive buying behavior. While consumers were less likely to purchase on impulsive according to the study by Park et al. (2011), this present study suggests that product selection encourages consumers’ impulse purchases. Also, a previous study by Mikalef

et al. (2017) showed that product selection did not impact behavioral intention. This result may be due to the differences in context of the study when compared to the present study's context, wherein product selection has been validated to have a direct and positive effect on impulsive buying behavior. It is an interesting and, perhaps, distinctive finding in emerging markets.

Vietnamese consumers appear most interested in a greater variety of products. They tend to shop online when their product expectations are met or exceeded. This is especially true when social commerce platforms promote a wide variety of products that align with the consumers' needs enabling consumers to make the best possible selection.

CONCLUSION

Theoretical Implications

This study contributed new insights to understanding the determinants of online impulse purchasing both Information System (IS) and marketing perspectives. First, this study applied the S-R model to investigate the characteristics of the social commerce environments that influence consumers' urge to buy impulsively and impulsive buying behavior. The authors expanded on Mikalef et al.'s (2017) study by showing that social commerce constructs influence not only planned behavior, but also unplanned behavior. Therefore, the findings of this study can enrich the understanding of academics and researchers regarding the impact of social commerce environments.

Second, this study confirms the appropriateness of using the S-R theory for testing online impulsive-buying behavior and the urge to buy impulsively and, thus, offers a valid theoretical perspective for the facet of online consumer behavior. By introducing social commerce constructs as stimulus, this study provides a deeper understanding of what takes place in consumers' minds unconsciously before an impulse purchase is made.

Third, several new relationships have also been empirically validated in the emergency market. The findings have stressed that the impact of socialization and information availability on impulsive buying behavior appeared to be different when compared to the impacts of these factors on the urge to buy impulsively. While all of the characteristics of social commerce environments were found to be supported for the urge to buy impulsively, only personalization and product selection were found to significantly influence actual impulsive buying behavior. The results show that that "urge to buy impulsively" is a prior stage of impulsive buying behavior (Beatty & Ferrell, 1998; Badgaiyan & Verma, 2015). Socialization and information availability were found to be unrelated to "actual impulsive buying behavior" while still being found to significantly affect the "urge to buy impulsively." This implies that the impact of socialization and information availability has not lead to actual impulsive buying behavior, thus, consumers may feel temporarily out of control, but then, they pay more attention to behavioral consequences.

Fourth, the mediating role of the "urge to buy impulsively" reveals that consumers have to process stimuli and have a desire before engaging in impulsive buying behavior. Additionally, the internal process can lead to consumers' impulsive purchasing behavior or may only stop their desire. Finally, the theoretical model was validated in the newly emerged F-commerce context of developing countries.

Practical Implications

Besides the theoretical implications, this study also contributed significant practical implications. First, consumers with high socializing are the desire to buy a product at sudden. Facebook retailers may create a fan club where consumers can interact with one another and share information. In addition, personalization is crucial to the urge to buy impulsively and impulsive buying behavior. So, to stimulate impulsive buying behavior, online retailers should create personalized content that is meaningful and targeted to a specific kind of consumer. More specifically, online retailers can communicate with consumers in a human way and create meaningful conversations that are based on the core interests

of their target consumers. This allows them to build engagement and consumers' trust. Moreover, personal recommendation agents will increase a good shopping experience by reducing the overlap, or redundancy of information, which creates an encouraging environment for customers.

Furthermore, offering a variety of product selections to specific consumers allows them to easily find items that match their needs and interests. Although previous studies found that a range of products may distract consumers from making the best selection (Mikalef et al., 2017). However, this study showed that a variety of products stimulate consumers' desires as well as their decisions to purchase impulsively. In order to direct sell products via Facebook to the right consumers with the right offer, online retailers should build carousels featuring a range of products in one post to avoid too much information. In addition, consumers are likely to visit a store if the retailers provide product availability information online. Online retailers need to provide accurate information and show consumers the benefits of products and services, which will create the feelings that consumers will get when they own the products, which will then increase the consumer's desire to buy.

LIMITATIONS AND FUTURE RESEARCH

The present study exhibited some important insights. Still, it is not without limitations, which need to be considered for future research. First, the data were collected for the study from various types of products (e.g. clothing, cosmetics, food, etc.) and is limited geographically to Vietnam consumers who shop online. Future studies should attempt to define the extent to which impulsive behaviors are triggered by different products and services, which will help researchers and managers to develop strategy for different products and services. Additional research should test the moderating effect on the relationship between social commerce features and impulse buying behavior, such as demographic variables or situational factors, which would help deepen an understanding about consumers' impulsive buying behavior. In addition, it would be interesting to compare two models, such as the differences between developing and developed countries.

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