SOCIAL COMMERCE USERS' OPTIMAL EXPERIENCE: STIMULI, RESPONSE AND CULTURE

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ABSTRACT

Social commerce users' experience is generated during socio-commercial interactions. Therein, users receive utilitarian and hedonic stimuli that form their experience and influence their responses. However, research is needed to understand how this experience is generated. Based on the stimulus–organism–response framework and flow theory, this study analyzes how hedonic *stimulus* (here called sPassion) and utilitarian *stimulus* (usability) affect users' flow experience (*organism*) to positively impact emotional and behavioral loyalty (users' *responses*). Furthermore, as social commerce users are culturally diverse, the moderating effect of cultural background is studied, drawing on Hofstede's cultural dimensions. Findings show that hedonic stimulus more strongly impacts social commerce users' flow experience versus utilitarian stimulus. Once users reach the state of optimal experience, their positive responses are reflected in their increased intention to spread social word of mouth, to return to the website and to repurchase on it. Additionally, optimal user experience in social commerce is generated mainly through hedonic stimuli and, while social commerce environments can be culturally diverse, cultural background does not imply changes in users' behavioral patterns. This study theoretically advances research on social commerce users' experience. Likewise, the findings guide online retailers in optimizing user experience via hedonic stimuli to enhance loyalty.

Keywords: Cross-cultural; Social commerce flow state; User experience

1. Introduction

Digital platforms have dramatically impacted the economy. In 2019, worldwide revenue in the online commerce market amounted to US$2,012,096 million as of March, and is expected to show an annual growth rate (2019–2023) of 8.9% [Statista 2019]. Furthermore, online commerce had 56.2% user penetration as of March 2019 and is expected to hit 61.8% by 2023 [Statista 2019]. In the same vein, in recent years the digital context has seen a proliferation of social commerce websites, which allow individuals to interact and socialize, and to buy anytime and anywhere [Turban et al. 2018]. Consequently, online users' experience has been also altered; proof of this can be seen in the fact that one in two millennials post online reviews and 62% of US users have stated that they read online reviews before making a purchase decision [Statista 2018]. This new socio-interactive online scenario is characterized by generating customer purchasing experiences from the sharing and exchange of information, advice and opinions. To summarize, the social commerce purchasing experience encompasses interaction, socialization and commercial activities.

It is not only with regard to revenues that social commerce websites have revolutionized online business practice [Lin et al. 2017]. Social commerce has forced companies to adapt their websites to consumers who demand interaction and socialization when they buy [Bleier et al. 2019], since this kind of trade is characterized by user participation and exchange of information. Furthermore, social commerce websites help companies to create bonds and to strengthen relationships with their customers [Huang & Benyoucef 2017; Lin et al. 2017; Zhang et al. 2018; Zhang et al. 2019]. Meanwhile, users have acquired a more active role with the possibility of accessing a huge amount of information and

of generating their own information, known as social word of mouth (sWOM), which is a specific form of eWOM in social commerce contexts [Chen et al. 2017; Lin et al. 2017].

In this way, sWOM benefits from social tools on social commerce websites – such as recommendations and referrals, ratings and reviews, and forums and virtual communities [Chen et al. 2017; Li 2017; Zhang et al. 2019]; it enables users to obtain information and opinions from other users and to interact with them without space or temporal constraints – and, thus, irrespective of cultural background [Liang et al. 2011; Ng 2013; Zhang et al. 2014]. Thus, online consumer behavior in social commerce has been categorized as transactional, informational and social [Shen 2012]. Hence, social commerce is seen as a phenomenon of the age of internationalization and interconnectivity that is forcing business practice to evolve toward interactive environments that are rich in social interactions and information exchange that empower online customers [Lin et al. 2017].

Undoubtedly, now more than ever, customer experience matters [Lemon & Verhoef 2016]. Social commerce has changed the customer purchase decision-making process by making room for social knowledge and personal experiences of other users [Chen et al. 2017]. Users of social commerce have utilitarian and hedonic needs [Farivar et al. 2018; Osatuyi & Qin 2018]; they want to know not only the utilitarian characteristics of a product but also people's experiences with it, and all this influences their decision-making process and consequently their responses. To offer a good user experience, several authors have highlighted the importance of a quality and useful website design [Bleier et al. 2019; Curty & Zhang 2013]. However, within the new social-interactive environments of social commerce, in addition to providing utilitarian websites, it is advisable to optimize the customer experience through affective stimuli, in ways that address the emotional side of users [McKinsey 2016].

Customer experience has drawn the attention of marketing research in recent years [MSI 2016–2018], and it continues to be under the spotlight [MSI 2018–2020]. Specifically, the importance of utilitarian and hedonic components of social commerce has been identified as a promising and interesting research theme to understand users' experience and behavior [see the systematic literature review by Baethge *et al.* 2016]. Therefore, it seems interesting to bridge this research gap so as to gain a better understanding of customer experience in social commerce with the intention of advising companies on how to offer an optimal experience on their social commerce websites, which results in positive responses.

It has been said that social commerce users can have an optimal experience (also called flow state) during navigation when they are concentrating so hard, and enjoying themselves so much, that they lose track of time [Gao & Bai 2014; Herrando et al. 2018; Zhang et al. 2014]. The concept of flow, drawn from positive psychology [Csikszentmihalyi 1975], contributes to the generation of optimal experiences that result in positive behaviors and responses [Gao & Bai 2014; Liu et al. 2016; Shim et al. 2015; Zhang et al. 2014]. Thus, it is particularly relevant to understand how the online consumer experience in social commerce can be improved by the state of flow. Moreover, the state of flow is undeniably connected to emotions, especially in the case of social commerce experiences, which are fundamentally characterized by socialization. Based on flow theory, once users reach a state of optimal experience, they are likely to show positive responses [Gao & Bai 2014; Herrando et al. 2018; Zhang et al. 2014]. The importance of a user reaching flow state when using a social commerce site pertains to the fact that it positively influences not only the user's intention to comment about the experience to others, but also their intention to return and to repurchase using that website [Han, 2014; Kim & Han 2014; O'Cass & Carlson 2010; Richard & Chebat 2016]. That is, reaching a flow state can result in positive loyalty responses, framed on emotional loyalty (sWOM intention) and behavioral loyalty (return and repurchase intention) [Ball et al. 2006; Dick & Basu 1994; Kassim & Asiah Abdullah 2010; Kim & Lee 2010; Zeithaml 2000].

With the purpose of contributing to the understanding of how social commerce users' optimal experience is generated, and drawing on the stimulus–organism–response (SOR) framework [Mehrabian & Russell 1974] and on flow theory [Csikszentmihalyi 1975], the main objective of this study is to analyze how hedonic and utilitarian *stimuli* impact flow state (*organism*), resulting in a positive effect on emotional loyalty and behavioral loyalty (users *responses*). Moreover, due to the highlighted relevance of cultural diversity in social commerce, based on Hofstede's [1980, 2011] cultural dimensions, this study tests the moderating effect of cultural background. The findings lead to practical and theoretical implications in the field of research on users' experience that will help marketers and academics to understand how optimal user experience is generated and what its outcomes are. Users are exposed to so many influences during the online purchasing process that offering such an optimal experience that they want to repeat it, and not abandon it, can be crucial for online retailers – hence the important of boosting loyalty.

The remainder of the paper is organized as follows. In the next section, we offer a brief explanation of the evolution from e-commerce to social commerce, and frame our theoretical background on the SOR framework and flow theory. Next, based on the SOR framework we hypothesize the variables as *stimuli, organism* and *response* factors and, finally, we introduced the moderating effect of cultural background. After this, we explain the methodology employed and test the model. We conclude with a discussion on the challenges and opportunities of the

moderating role of culture in consumer behavior in social commerce, outlining a theoretical contribution and business implications. Finally, we explain the limitations of this research and propose future research directions.

2. Theoretical Background and Development of Hypotheses
2.1. From Electronic Commerce to Social Commerce

Social commerce has been defined as "*any commercial activities facilitated by or conducted through the broad social media and Web 2.0 tools in consumers' online shopping process or business' interactions with their customers*" [Lin et al. 2017, p. 191]. Social commerce integrates tools that enable interaction and socialization with commercial features [Huang & Benyoucef 2013]. Social commerce is understood as an evolution of e-commerce combined with social media and Web 2.0 [Huang & Benyoucef 2017; Liang & Turban 2011; Lu et al. 2016; Turban et al. 2018; Wang & Herrando 2019]. In social commerce contexts, apart from buying products, users can interact and socialize with others and with the company [Lin et al. 2017; Turban et al. 2018; Zhang et al. 2015]. The difference between traditional e-commerce sites (e.g. Zara) and social commerce websites (e.g. Amazon) lies mainly in three factors: business goals, customer connection and system interaction [Baghdadi 2016; Huang & Benyoucef 2013, 2015, 2017]. Regarding business goals, social commerce is notable for its focus on social activities, while e-commerce aims to maximize shopping efficiency [Li & Ku 2018]. While traditional e-commerce emphasizes the efficiency of transactions and bidirectional communications with customers, social commerce goes deeper into relationship marketing to drive the social-commercial perspective, thus facilitating interactions among customers [Huang & Benyoucef 2017; Li & Ku 2018]. E-commerce deals with customers as individuals, whereas social commerce considers a community of customers [Baghdadi 2016]. Thus, the focus of online commerce has changed from being product-centered, with information provided by the company, to being social-centered [Li & Ku 2018], with a clear orientation toward consumer and social connections [Huang & Benyoucef, 2017]. In terms of website design, e-commerce focuses on sales, while social commerce concentrates on information exchange [Huang & Benyoucef 2017]. Thus, social commerce is focused not only on offering utilitarian websites, but also on taking care of users' hedonic needs. That is, social commerce takes into account the fact that emotions are part of users' experiences. The evolution from e-commerce to social commerce is depicted in Figure 1.
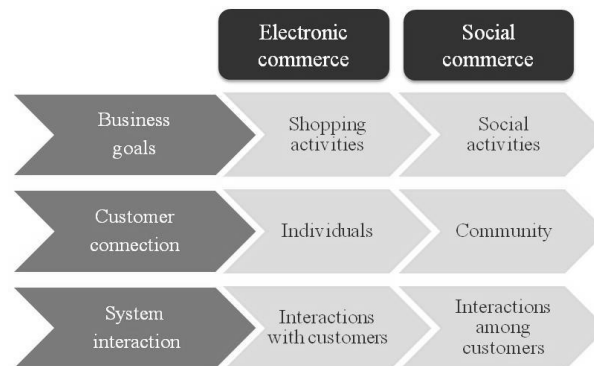

Figure 1. Evolution from e-commerce to social commerce (authors' own elaboration).

2.2. The SOR Framework and Flow Theory

Stemming from positive psychology, the SOR framework holds that an organism responds to certain stimuli in a particular way [Donovan & Rossiter 1982; Mehrabian & Russell 1974]. In online commerce, the SOR framework entails that certain environmental stimuli affect users' states, resulting in positive behavioral responses [Eroglu et al. 2001, 2003]. Research on e-commerce has mainly focused on design and ambient stimuli [i.e. Huang & Huang 2013; Jiang et al. 2010; Mollen & Wilson 2010]; however, with the inclusion of social commerce, social stimuli have started to be considered due to the socio-interactive characteristics of this new environment [Chang 2013; Herrando et al. 2018; Lin et al. 2017; Liu et al. 2016; Zhang et al. 2014]. The SOR framework has been considered to represent a parsimonious and structured underpinning for research on social commerce, which have studied responses as repurchase intention [Lin et al. 2017]. In combination with the SOR framework, flow theory has been used in social commerce research, wherein flow state is considered as the organism to understand user experience and behavior [Gao & Bai 2014; Herrando et al. 2018; Liu et al. 2016; Zhang et al. 2014].

Following the idea that social commerce users have both utilitarian and hedonic needs [Farivar et al. 2018; Osatuyi & Qin 2018], this study considers these needs as stimuli and analyzes their effects on flow experience, wherein the user has such an optimal experience that it results in their positive responses to the social commerce website [Gao

& Bai 2014; Herrando et al. 2018; Zhang et al. 2014]. Flow has the potential to positively impact users' loyalty because this experience drives positive responses.

2.3. Stimuli: Utilitarian and Hedonic Online Rating Behavior

Utilitarian stimulus refers to "*how useful or beneficial the object is*" [Batra & Ahtola 1991, p. 161]. One utilitarian aspect to take into account when designing a website is its usability [Casaló et al. 2008; Lee & Koubek 2010]. Casaló et al. [2008] define usability as the ease of understanding the structure of a website; its functions, interface and the contents that can be observed by the user; the simplicity of use; the speed with which users can find what they are looking for; the perceived ease of site navigation; and the ability of the users to control what they are doing, and where they are, at any given moment. The inclusion of utilitarian features on websites gives users a better experience and, thus, contributes to experiencing the state of flow [Bilgihan et al. 2015; Bilgihan 2016; Luna et al., 2002]. Customer experience research has been grounded in flow theory to understand the antecedents of flow state, considering utilitarian stimuli as boosters to generate this optimal experience [Novak et al. 2000; Hausman & Siekpe, 2009]. In social commerce, utilitarian-related stimuli – such as interactivity, effectiveness or informativeness – encourage flow state [Zhang et al. 2014, Gao & Bai 2014]. Thus, we hypothesize that usability, as a utilitarian stimulus, has a positive impact on the organism – that is, on flow state.

Apart from utilitarian stimulus, it is believed that hedonic aspects on the website are needed to optimize flow experience [Mahnke et al. 2015]. Hedonic stimulus refers to the "*experiential affect associated with the object*" in terms of how pleasant and agreeable these feelings are [Batra & Ahtola 1991, p. 161]. Regarding the hedonic stimulus on social commerce websites, thanks to the interactivity, socialization and enjoyable atmosphere of this kind of website, users can experience a feeling of passion (referred to here as sPassion in reference to social commerce websites) that positively contributes to experiencing the state of flow, resulting in an increase of word of mouth (WOM) behavior [Herrando et al. 2018]. It has been argued that sPassion is a social and affective stimulus resulting from the interactivity and socialization tools inherent in social commerce [Herrando et al. 2017]. According to Thomson et al. [2005], "*consumers can become emotionally attached to consumption objects, including brands*". Therefore, it is to be expected that users can also be emotionally attached to a social commerce website. In the same way that individuals can be passionate toward a person, website or brand [MacInnis & Folkes 2017], they can experience passion specifically through a social commerce website [Herrando et al. 2017]. Passion has been considered an emotion or hedonic stimulus that encourages flow state [Vallerand et al. 2003; Lavigne et al. 2012; Carpentier et al. 2012]. Through social commerce interactions users not only offer more information about a product, but also share their emotions [Chen et al. 2017; Herrando et al. 2017; Zhang et al. 2018]. Therefore, we consider sPassion to represent the hedonic stimulus in social commerce. Moreover, hedonic website stimuli have been confirmed to positively affect flow state [Bilgihan et al. 2015; Bilgihan 2016]. Based on the work of Herrando et al. [2018], which supports the positive relationship between sPassion and flow experience, we hypothesize that sPassion, as a hedonic stimulus, has a positive impact on the organism – that is, on flow state:

H1a. *sPassion (hedonic stimulus) will have a positive effect on the user experiencing flow state.*

H1b. *Usability (utilitarian stimulus) will have a positive effect on the user experiencing flow state.*

2.4. Organism: Flow State

At the center of the SOR framework, the organism is represented by the optimal experience, or flow state [Gao & Bai 2014; Herrando et al. 2018; Liu et al. 2016; Zhang et al. 2014]. According to Eroglu et al. [2001], whose study was the first to apply the SOR framework in retailing, consideration of the organism contributes to understanding internal states of individuals, as it is in the middle between the stimulus and the individual's responses. In social commerce research, the organism represents customer experience and helps to determine customer behavior [Zhang et al. 2014]. Thus, the organism symbolizes social commerce users' experience. The state of flow is an enjoyable optimal experience in which individuals are concentrating so hard on the activity they are performing that they lose track of time and space [Csikszentmihalyi 1975]. In consumer behavior research, the state of flow stands out for its power to involve consumers and to drive them to seek repetition of this optimal experience, which translates into online returns and repurchases [Hausman & Siekpe 2009; Kim & Han 2014; Richard & Chebat 2016]. People who experience such a rewarding experience are eager to feel it again, which unconsciously contributes to creating loyalty. Likewise, those who reach flow state value the experience positively and tend to be engaged [Csikszentmihalyi 1997]. Thus, flow can be seen as a loyalty booster, which is why it is important for online sellers [Mahnke et al. 2015]. Because of this, flow state has recently been used to understand users' behavior in social commerce contexts [Gao & Bai 2014; Herrando et al. 2018; Liu et al. 2016; Zhang et al. 2014]. In addition to being related to behavioral loyalty (such as intentions to return and repurchase), the state of flow affects WOM intention [Herrando et al. 2018; O'Cass & Carlson 2010] and so-called emotional loyalty [Ball et al. 2006; Kim & Lee 2010]. In fact, positive emotions, which can be derived from experiencing flow, are directly related to sWOM intention [Wang et al. 2018].

2.5. Responses: Emotional and Behavioral Loyalty

This study considers that reaching the state of flow will positively influence the user's emotional and behavioral loyalty responses [Han 2014; Herrando et al. 2018; Kim & Han 2014; Richard & Chebat 2016] (a description of all variables used in the research model are provided in Table 1). Several authors define online loyalty as the intention to return to the website or to consider repurchasing from it [Cyr et al. 2005; Lam et al. 2009; Peña-García et al. 2018]. Loyalty in online settings is also defined as the intention to buy on a specific website and not to change to another one [Flavián et al., 2006], and as the intention to revisit and repurchase [Cyr et al. 2007; Cyr et al. 2008]. Other authors consider that, in addition to this kind of loyalty, which they term behavioral loyalty, it is important to take into account another form of loyalty that is linked more to users' emotional side – this is termed emotional loyalty [Ball et al. 2006; Dick & Basu 1994; Kassim & Asiah Abdullah 2010; Kim & Lee 2010; Zeithaml 2000]. In this study, we consider both types of loyalty: emotional loyalty, which refers to users' intentions to spread WOM; and behavioral loyalty, which refers to users' willingness to return to the website and to repurchase from it. Users who experience flow are prone to become immersed in the experience [Mahnke et al. 2015] and show loyalty toward the website [Shim et al. 2015; Su et al. 2016]. Specifically, Gupta and Kadabayi [2010] confirm that flow can be considered a driver of loyalty; however, consumers with experiential motives (i.e. browsing for recreation) are more likely to reach flow state than are those who are goal-directed (i.e. searching for information). With the proliferation of social commerce, retention and loyalty concerns have been addressed using flow theory to understand how emotional loyalty can be generated through sWOM participation [Gao et al. 2017]. Likewise, some studies focus on analyzing flow as an antecedent of behavioral loyalty because of its power to encourage purchases and to awaken something in users that makes them to look to repeat this experience [Hausman & Siekpe 2009; Kim & Han 2014; Koufaris 2002]. Thus, it seems practical to differentiate between behavioral and emotional loyalty in order to identify how flow generates each type of loyalty. In addition, it has been confirmed that flow can positively influence the intention to return to a website and to repurchase from it [Luna et al. 2002], and that flow also has a positive effect on WOM [Herrando et al. 2018; O'Cass & Carlson 2010]. Hence, we hypothesize that the response of having reached the state of flow has a positive impact on emotional and behavioral loyalty:

H2. *The state of flow will have a positive effect on* **(H2a)** *sWOM intention (emotional loyalty),* **(H2b)** *return intention and* **(H2c)** *repurchase intention (behavioral loyalty).*

Table 1. Definitions of the Variables of the Conceptual Model

Variables	Definitions
Usability	The extent to which the website is seen by users as useful, easy to navigate and well structured.
sPassion	The positive affective feeling toward a social commerce website that users experience as a result of interaction, socializing and enjoyment during navigation.
Flow	Optimal experience that users reach when they are fully concentrated, enjoying the navigation, and feeling a temporal distortion.
sWOM Intention	The intention to share a positive thought [make a recommendation, rate a product positively, give an opinion on the discussion forum, etc.] on a social commerce website.
Return Intention	The intention to revisit the same website.
Repurchase Intention	The intention to repurchase from the same website.

Source: Author's elaboration.

2.6.   Moderating Effect of Culture

Several studies confirm that culture influences consumer behavior [Forbes 2017; Luna & Gupta 2001; McCort & Malhotra 1993; Richard & Habibi 2016; Schumann et al. 2010; Triandis 1972]. In fact, cultural studies on website design have tried to offer localized interfaces [Taylor 1992] with adapted Web content [see review by Moura et al. 2015], and have even tried to find the perfect algorithm to adapt interfaces to users' cultural background [Reinecke & Bernstein 2013]. Nevertheless, social commerce does not look to target users based on their localization, religion or culture; conversely, social commerce aims to enable social interactions during commercial activities anytime and anywhere [Herrando et al. 2017]. Social commerce websites can be accessed from all around the world; that is, a user from Sweden can buy something online from Japan, and an Australian can share information about a French product on a Canadian discussion forum. Thus, users' social interactions can be culturally diverse, which calls for further cross-cultural research on social commerce [Baethge et al. 2016].

Culture has been defined as "*the collective programming of the mind that distinguishes the members of one group or category of people from others*" [Hofstede 1980, p. 25]. Cross-cultural research has evolved from the introduction of Hofstede's [1980] four cultural dimensions (power distance, individualism/collectivism, uncertainty avoidance, and

masculinity/femininity), to six cultural dimensions with the addition of high/low *long-term* orientation and indulgence/restraint [Hofstede 2011]. According to Hofstede, a nation's score in each of the dimensions is inherent to each culture and the representation of this culture in individuals' behavior.

Cross-cultural research in marketing has been undertaken in relation to mobile commerce [Harris et al. 2005], website navigation [Luna et al. 2002], information systems [Leidner & Kayworth 2006], electronic commerce [Chen et al. 2015; Pavlov & Chai 2002], online payments [Deufel et al. 2019], website design [Moura et al. 2016], flow experience [Asakawa & Yana 2010; Moneta 2004a; Richard & Habibi 2016], passion [Albert et al. 2013; Burke et al. 2015], website interactivity [Cho & Cheon 2005], WOM [Fong & Burton 2008; Lam et al. 2009; Money et al. 1998], online consumer reviews [Wang et al. 2019], and customer loyalty [Peña-García et al. 2018], but scarcely in social commerce [Ng 2013; Noh et al., 2013; Sheikh et al. 2017]. Thus, further cross-cultural studies contextualized in relation to social commerce are necessary [see review by Baethge et al. 2016]. In social commerce, it has been confirmed that culture moderates trust transferred from social interactions to purchase intention depending on the degree of uncertainty avoidance and collectivism/individualism of the studied societies [Ng 2013]. Testing the same two cultural dimensions, Sheikh et al. [2017] affirms that culture moderates the relationship between behavioral intentions and use behavior in social commerce. Noh et al. [2013] state that the more collectivist a society is, the more use intention is shown toward social commerce.

Likewise, some studies have tested the state of flow in relation to different cultural backgrounds [Asakawa & Yana 2010; Moneta 2004b; Richard & Habibi 2016]; however, to the best of our knowledge, there is no contextualized research on social commerce websites. Regarding the hypothesized antecedents of flow, it is believed that utilitarian stimuli effects on a website vary among cultures [Cyr et al. 2008; Cyr et al. 2010]; in the same way, culture affects how people define passionate love [Kim & Hatfield 2004], so the way users experience sPassion can also vary across cultures. Regarding the hypothesized consequences of flow, some researchers have studied e-commerce loyalty behaviors across cultures [Chen et al. 2015; Cyr et al. 2008], and have tested whether culture affects behaviors such as purchase intention or WOM [Fong & Burton 2008; Frank et al. 2015; Hernandez-Ortega et al. 2017; Lam et al. 2009; Money et al. 1998; Schumann et al. 2010]. Therefore, it seems reasonable to analyze the moderating effect of culture in the proposed research model.

Regarding the stimuli antecedents of flow, the moderating effect of culture will be tested from a *feminine* versus *masculine* perspective – that is, by checking whether the society is oriented more toward emotions (*feminine*) or to materialism (*masculine*). These *feminine/masculine* dimensions are not rooted in sexism, being related to neither feminism nor machismo, but rather correspond to the extent to which individuals care about others. According to Hofstede [Hofstede 2018], a high score on this dimension (indicating greater *masculinity*) indicates that the society is driven by competition, achievement and success, with success being defined by the winner/best in field – a value system that starts in school and continues throughout organizational life. A low score (indicating greater *femininity*) on the dimension means that the dominant values in society are caring for others and quality of life. A *feminine* society is one in which quality of life is the sign of success and standing out from the crowd is not admirable. In *feminine* cultures, tender values prevail and there is a stronger relationship orientation compared with *masculine* cultures [Schumann et al. 2010], so passion can be linked to *feminine* scores. *Feminine* cultures are people oriented, whereas *masculine* cultures are oriented toward money and things [Hofstede 1983]. In societies that attach great importance to emotions, it is also expected that sPassion, as a hedonic stimulus, has a stronger effect on users' experiences than does usability, as a utilitarian stimulus. Moreover, following the argument that *masculine* societies are oriented toward money and things [Hofstede 1983], it is expected that in these societies utilitarian stimuli, such as usability, will have a greater impact on flow compared to in *feminine* societies. Therefore, we hypothesize:

H1'. (**H1'a**) *In more feminine societies, the hedonic stimulus (sPassion) will have a stronger effect on users experiencing flow state compared to in more masculine societies, while (**H1'b**) in more masculine societies, the utilitarian stimulus (usability) will have a stronger effect on users experiencing flow state compared to in more feminine societies.*

Regarding flow responses or consequences, the moderating effect of culture will be tackled by analyzing *high*-versus *low-long-term orientation*, because in the research model flow consequences are measured as user intentions. *Long-term* societies are oriented toward the future, and people in these societies try to learn from others [Hofstede 2011]. Thus, the level of *long-term* orientation might influence responses to experiencing flow, such as sWOM, return and repurchase intentions. In high *long-term* societies, past experiences affect present and future intentions [Hofstede InSights 2018]. Therefore, it is expected that *long-term* societies are more likely to show future intentions related to the purchasing process compared to societies that score low in this dimension. Ng [2013] states that culture can moderate the relationship between social interactions and purchase intentions in social commerce; however, her study focuses only on the influence of uncertainty avoidance and individualism, disregarding *long-term* orientation. Moreover, it is assumed that these intentions will also retain intention to spread sWOM; that is, users' intentions to

give and receive user-generated content, make recommendations, share opinions, rate products, etc. Social commerce contexts are propitious for sharing WOM, since users can share common interests and concerns, such as on discussion boards [Fong & Burton 2008]. Culture influences the way individuals communicate, and guides their behavior and communication process [Kim & Bonk 2002]. Therefore, we hypothesize the following:

*H2'. In high long-term-oriented societies, users' flow experience will have a greater effect on (**H2'a**) intention to spread sWOM (emotional loyalty), (**H2'b**) intention to return (behavioral loyalty) and (**H2'c**) intention to repurchase (behavioral loyalty) compared to in low long-term-oriented societies.*

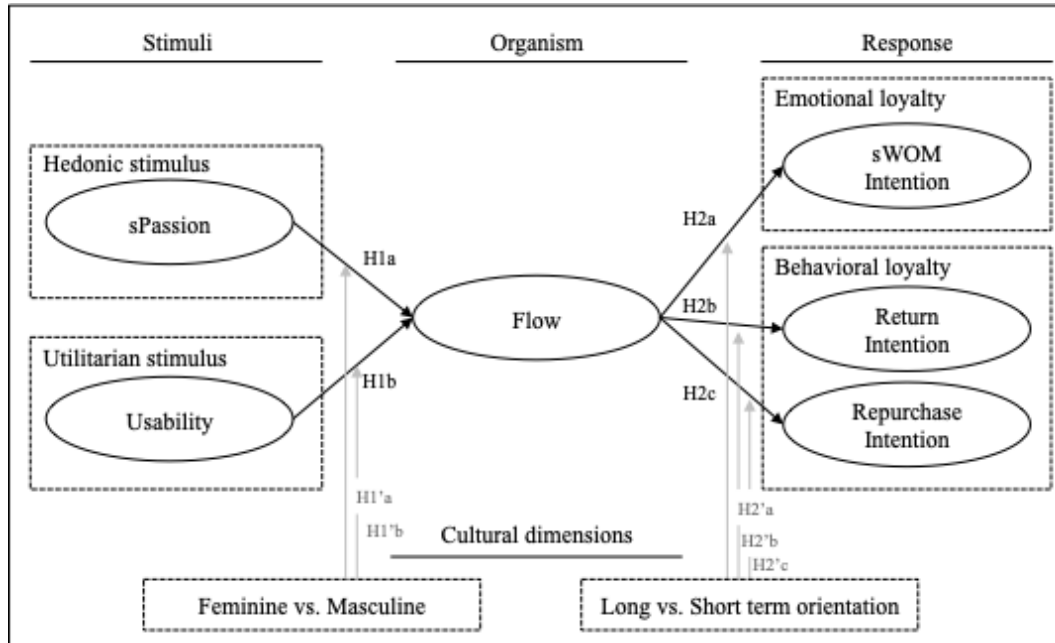Figure 2 shows the research model, with all proposed hypotheses.

Figure 2. Research model

3. Methodology
3.1. Methodology Design

We selected Spain and Japan for this investigation, for two main reasons: first, because, according to Hofstede's [2018] classification (see Table 2), Japan and Spain show significant differences in the two studied dimensions (Japan scores high in *masculinity* and high in *long-term orientation*; Spain scores low in *masculinity*, which means that it is a *feminine* country, and low in *long-term* orientation); and, second, because both countries have similar scores in the rest of the dimensions, which enables us to avoid other dimensions' possible impacts on the model, and thus bias that could arise if scores differed in the remaining dimensions.

According to Hofstede InSights [2018], with a score of 88, Japan is one of the most *long-term-oriented* societies, and the Japanese are characterized as taking their time to make decisions (see Table 2). Moreover, although Japan is the most *masculine* society in the world, with a score of 95, Japanese people do not show competitive individual behavior due to its mild, collectivist culture. According to the national value manifestations proposed by Hofstede [2018], Spain is more linked to passion. Spanish people like to live in the moment, without great concern for the future, and have a low *long-term orientation* [Hofstede InSights 2018]. Bearing these specific characteristics of each country in mind, our cross-cultural study analyzes the dimensions of *masculinity/femininity* and *high/low long-term orientation*. Japan and Spain score high and low as *long-term-oriented* cultures, respectively, which is why we used these countries as the cultural background for our study. Hence, we considered that these two countries would help us to understand how users' optimal experience in social commerce, based on website design stimulus and affective stimulus, can positively affect their loyalty intentions.

Table 2. A Comparison between Japan and Spain in Relation to Hofstede's Dimensions

	Power Distance	Individualism vs Collectivism	**Masculinity vs Femininity**	Uncertainty Avoidance	**High vs Low Long Term Orientation**	Indulgence vs Restraint
Japan	54	46	**95**	92	**88**	42
Spain	57	51	**42**	86	**48**	44

Source: www.Geert-Hofstede.com

3.2. Data Collection and Procedure

The data used for this study were collected through an online survey. The total number of responses was 590, distributed into two subsamples: Japanese (n = 194) and Spanish (n = 396) (see Table 3). Ages ranged from 18 to 34 years, representing generations Y (1981–1990) and Z (1991–2000) – that is, generations that grew up with technology and are savvy users [AMA 2016; Bilgihan 2016; Kantar Millward Brown 2016]. All respondents were online consumers who had recently bought from social commerce websites.

At the beginning of the questionnaire, after being given an explanation of the concept of social commerce, participants were selected from those who had recently purchased using a website with the characteristics of a social commerce platform. They were then asked to name the social commerce website from which they had bought. Among their answers were Amazon, AliExpress, and Booking, and many other websites defined as social commerce platforms. Throughout the questionnaire, the respondents were continuously asked to recall their experience on the website they had chosen.

In recent years, several authors have come to the conclusion that two types of social commerce can be clearly identified in terms of the main focus of the website [Chen et al. 2017; Ko 2018; Lin et al. 2017; Ng 2013; Wang & Herrando 2019; Zhang & Benyoucef 2016; Zhang et al. 2019]. First, social commerce websites can be considered as commercial websites with added social interaction tools (e.g., Amazon and Booking), and second, they can be considered as social networks with added commercial functions that facilitate purchases (e.g., Facebook, Instagram and Fancy) [Grange et al. 2019; Kim & Park 2013; Yadav et al. 2013]. In other words, the focus may be on commercial activity or on social interactions [Ko 2018]. Although the vast majority of studies on social commerce have concentrated on the social interaction aspect of social commerce platforms [see reviews of the literature on social commerce by Lin et al. 2017; Zhang & Benyoucef 2016; Zhou et al. 2013], this study takes as its context the first kind of social commerce websites – that is, those that add social interaction tools to the site – because these are more closely linked to the business field. The main aim of these websites is to generate commercial activity, whereas social network-based social commerce websites tend to prioritize social connections and to put commercial purposes in second place [Grange et al. 2019].

Table 3. Detailed Demographics of the Participants

	Japan	Spain
Age: 18-34	194	396
Genre		
Women	85 (44%)	198 (50%)
Men	109 (56%)	198 (50%)

3.3. Common Method Bias

Common method bias was assessed using procedural and then statistical approaches [Podsakoff et al. 2003]. First, all respondents were informed about the anonymity of the questionnaire and the lack of right or wrong responses. Second, Harman's single-factor test shows that the variance of a single factor explained 41.588% of the total variance. Since it explained less than 50% of the total variance, it is confirmed that the data do not suffer from common method bias.

3.4. Instrument Development and Validation

Before starting data collection, the survey instrument was checked by various experts in the different countries (Spain and Japan) to ensure that all the items and text were understandable, and to assess face and content validity. This pretest resulted in some minor changes, most of which were intended to improve the survey's length and ease of completion. To ensure content validity, literature about the variables included in the model was thoroughly reviewed, and the variables were adapted to the social commerce context. The revised survey was again checked by several experts. As adapted to the social commerce context by Herrando et al. [2017], and based on the scale of Baldus et al. [2015], sPassion comprised six items. Usability consisted of three items based on the scale of Flavián et al. [2006]. Flow conceptualization, as a reflective construct [Siekpe 2005], was based on the work of Herrando et al. [2018], where the multidimensionality and structure of flow were tested in the social commerce context. Based on this

previous work, flow was measured as a second-order reflective construct consisting of three subdimensions – concentration, enjoyment and temporal distortion – with three, three and six items, respectively, from the scales of Jackson and Marsh [1996], Koufaris [2002], Agarwal and Karahanna [2000] and Novak et al. [2000], used in social commerce contexts by Herrando et al. [2018]. sWOM consisted of three items based on Kim and Park [2013]. Finally, return and repurchase intention were measured with two and three items, respectively, based on the scales of Hausman and Siekpe [2009] and Kim and Park [2013] (see Table A in the Appendix). All survey variables were measured on a seven-point Likert scale, with the lowest score being 1 (strongly disagree), and the highest 7 (strongly agree).

4. Results

4.1. Validation of the Measurement Models

The focus of this study is on analyzing the effect of culture on social commerce users' experience. To do so, first, we ran the measurement and the structural model in order to test the relationship between sPassion (hedonic stimulus) and usability (utilitarian stimulus) on the state of flow, and consequently its effect on intention to spread sWOM (emotional loyalty) and to return and repurchase (behavioral loyalty). Second, we analyzed the moderating effect of culture.

To ensure the validity and reliability of the measurement scale, an exploratory factor analysis was conducted using SPSS version 22 and construct validity was analyzed using partial least squares (PLS) with the statistical software Smart PLS 3 [Ringle *et al.* 2015]. Exploratory factor analysis assessed the degree of dimensionality of the proposed scales using the principal axis factoring method and varimax rotation [Kaiser 1970, 1974]. Construct validity determines whether there are high correlations between measures of the same construct – i.e., convergent validity – or low correlations between measures of constructs that are expected to differ – i.e., discriminant validity [Campbell & Fiske 1959; Straub 1989].

Based on Fornell and Larcker [1981], to assess convergent validity the reliability of each item was examined, and was deemed to show internal consistency when the Cronbach's alpha values were higher than 0.70 [Nunnally 1978; Nunnally & Bernstein 1994). The composite reliability of each construct was also considered, with values greater than 0.60 deemed acceptable [Bagozzi & Yi 1988; Fornell & Larcker 1981], along with the average variance extracted (AVE), which had to exceed the value of 0.50 [Fornell & Larcker 1981] and, preferably, be greater than 0.70 [Hair et al. 2014].

The discriminant validity was tested to confirm that the constructs differed from each other. To do so, first, the cross-loadings were analyzed [Hair et al. 1999]. Second, a symmetric matrix was used to corroborate that the AVE on the diagonal was larger than its corresponding squared correlation coefficients in its rows and columns [Fornell & Larcker 1981; Hair et al. 1999]. Finally, the HT/MT (Heterotrait/Monotrait) ratio between correlations [Henseler et al., 2015] was determined; this showed discriminant validity when the correlations between the construct items were higher than the correlations that measured other constructs. The measurement model results of the three subsamples and the full sample are shown in Tables 4 and 5.

Table 4. Reliability and Convergent Validity of the Measurement Model

Variable	Sample	CA	CR	AVE
sPassion	Total	0.916	0.934	0.704
	Japan	0.854	0.890	0.575
	Spain	0.926	0.941	0.728
Usability	Total	0.888	0.930	0.817
	Japan	0.859	0.914	0.779
	Spain	0.895	0.934	0.826
Flow	Total	0.923	0.943	0.543
	Japan	0.907	0.921	0.500
	Spain	0.927	0.938	0.557
IsWOM	Total	0.925	0.953	0.870
	Japan	0.929	0.955	0.875
	Spain	0.914	0.946	0.854
Return Intention	Total	0.922	0.962	0.927
	Japan	0.898	0.951	0.907
	Spain	0.925	0.963	0.929
Repurchase Intention	Total	0.915	0.949	0.855
	Japan	0.901	0.938	0.834
	Spain	0.913	0.945	0.851

Note: CA = Cronbach Alpha; CR = Composite Reliability; AVE = Average variance explained.

Table 5. Discriminant Validity of the Full Sample and the Two Subsamples

	sPASS	USA	Flow	IsWOM	RET	REP
sPassion (Total)	**0.839**	0.211	0.665	0.493	0.421	0.351
Japan	**0.759**	0.130	0.582	0.281	0.180	0.250
Spain	**0.853**	0.262	0.696	0.487	0.332	0.443
Usability (Total)	0.246	**0.904**	0.274	0.479	0.593	0.535
Japan	0.068	**0.883**	0.384	0.574	0.679	0.573
Spain	0.238	**0.909**	0.282	0.521	0.603	0.537
Flow (Total)	0.628	0.309	**0.737**	0.490	0.520	0.442
Japan	0.509	0.322	**0.707**	0.540	0.558	0.619
Spain	0.657	0.269	**0.747**	0.457	0.337	0.475
IsWOM (Total)	0.456	0.516	0.488	**0.933**	0.801	0.685
Japan	0.277	0.508	0.533	**0.936**	0.727	0.720
Spain	0.449	0.470	0.439	**0.924**	0.729	0.757
Return Intention (Total)	0.324	0.591	0.407	0.695	**0.963**	0.891
Japan	0.115	0.590	0.531	0.664	**0.953**	0.833
Spain	0.314	0.547	0.317	0.672	**0.964**	0.829
Repurchase Intention (Total)	0.424	0.521	0.517	0.705	0.775	**0.925**
Japan	0.242	0.497	0.606	0.662	0.747	**0.913**
Spain	0.417	0.480	0.457	0.689	0.758	**0.923**

Note: Diagonal values are AVE squared roots. Below the diagonal: correlations among factors. Note: sPASS = sPASSION; USA = Usability; Second-order model of flow is composed of: CON = Concentration, ENJ = Enjoyment and TD = Temporal Distortion; IsWOM = sWOM Intention; RET = Return Intention; REP = Repurchase Intention. Above the diagonal: the HT/MT ratio.

4.2. Testing of Hypothesis of the Single Models

The validity of the model was assessed by analyzing the structural path coefficients and the percentage of variance explained. Bootstrapping was performed with 5,000 subsamples to test the statistical significance. The empirical results (shown in Table 7) confirm that the relationships in the model are supported. A blindfolding analysis, through cross-validated redundancy [Hair et al. 2014], confirmed that the model has predictive relevance. The findings underline, on the one side, that the hedonic stimulus (sPassion) has a stronger effect on generating users' flow experience than does the utilitarian stimulus (usability); and, on the other side, that flow experience drives positive responses. As can be seen in Table 6, results from the two samples show similar user experience patterns, not only regarding the main effect of hedonic stimulus on flow, but also regarding the effect of flow on repurchase intention, sWOM intention and return intention, in this order. In the following section, the moderating role of culture will be considered to test whether there are significant differences among countries.

Table 6. Structural Model of the Full Sample and the Two Subsamples

	Total		Japan		Spain	
Studied relationships	beta	t-value	beta	t-value	beta	t-value
H1a: sPASS → Flow	0.587	(19.355***)	0.489	(8.534***)	0.628	(18.814***)
H1b: USA → Flow	0.165	(4.759***)	0.288	(4.734***)	0.120	(2.812***)
H2a: Flow → IsWOM	0.488	(13.798***)	0.533	(8.754***)	0.439	(9.220***)
H2b: Flow → RET	0.407	(11.145***)	0.531	(8.868***)	0.317	(6.619***)
H2c: Flow → REP	0.517	(15.183***)	.606	(10.870***)	0.457	(10.384***)
R^2 Adjusted / Q^2	R^2	Q^2	R^2	Q^2	R^2	Q^2
Flow	41.7%	0.222	33.5%	0.163	44.2%	0.239
IsWOM	23.7%	0.205	28.1%	0.245	19.1%	0.162
RET	16.4%	0.149	27.9%	0.247	9.8%	0.089
REP	26.6%	0.227	36.4%	0.301	20.7%	0.175

Note: *** $p<0.01$ (t=2.6012). When the t value obtained using the bootstrap method is greater than Student's t value, the hypothesis is confirmed with a significance of 99%. ** $p<0.05$ (t=1.9722). sPASS = sPassion; USA = Usability; IsWOM = sWOM Intention; RET = Return Intention; REP = Repurchase Intention.

4.3. Measurement Invariance

Measurement invariance refers to "*whether or not, under different conditions of observing and studying phenomena, measurement operations yield measures of the same attribute*" [Horn & McArdle 1992, p. 117]. Hence, before conducting any multigroup analysis, it is necessary to test measurement invariance [Hair et al. 2014]. Steenkamp and Baumgartner [1998] proposed four levels for assessing measurement invariance: configural

invariance, metric invariance, scalar invariance, and error variance invariance. First, configural invariance requires that the number of constructs and items in each group have the same structure, which is confirmed by the researchers; second, metric invariance requires that items' loadings are invariant in all the groups; third, scalar invariance requires the equality of measurement intercepts; and, fourth, error variance invariance requires that items' measurement errors are invariant in all the groups. However, although Steenkamp and Baumgartner's [1998] proposal has been widely used, it is adequate for common factor models in structural equation modeling, but not for partial least squares structural equation modeling because it works with composite models. Hence, Henseler et al. [2016] suggested testing measurement invariance of composites models (MICOM) because they are conceptually different from common factor models. In line with prior research [Steenkamp & Baumgartner 1998], the MICOM procedure is also based on three steps, or levels, that have to be assessed one after the other: (1) configural invariance; (2) compositional invariance; and (3a) equal means and (3b) equal variances assessment [Henseler et al. 2016]. Results of the MICOM analyses are shown in Table 7.

Table 7. Results of Measurement Invariance of Composite Models (MICOM) Procedure

Constructs		sPASS	USA	FLOW	IsWOM	RET	REP
1. Configural Invariance		Yes	Yes	Yes	Yes	Yes	Yes
2. Compositional Invariance	Original correlation	0.998	1.000	0.998	1.000	1.000	0.998
	5%	0.999	0.997	0.999	0.999	0.999	0.999
	Partial measurement invariance established	Yes	Yes	Yes	Yes	Yes	Yes
3a. Equal Mean Assessment	Mean-Original Difference	0.750	0. 490	0.379	0.615	0.601	0.600
	95% Confidence Interval	(-0.173, 0.173)	(-0.167, 0.173)	(-0.170, 0.171)	(-0.169, 0.170)	(-0.170, 0.173)	(-0.178, 0.169)
3b. Equal Variance Assessment	Variance-Original Difference	-0.372	0.142	0.211	-0.002	-0.105	0.058
	95% Confidence Interval	(-0.169, 0.182)	(-0.257, 0.267)	(-0.201, 0.219)	(-0.229, 0.238)	(-0.233, 0.240)	(-0.234, 0.255)
Measurement Invariance Established		Partial	Partial	Partial	Partial	Partial	Partial

Note: MICOM running with 5000 permutations. sPASS = sPASSION; USA = Usability; FLOW = State of Flow; IsWOM = sWOM Intention; RET = Return Intention; REP = Repurchase Intention.

4.4.   Multigroup Analysis: Moderating Effects of Culture

A moderator variable is defined as one that systematically modifies the direction or strength of the relationship between an exogenous and an endogenous variable [Baron & Kenny 1986; Sharma et al. 1981]. To analyze the following moderating effects, multigroup analyses were conducted to test the difference between means using t-tests. Furthermore, through the parametric approach the significance of the parametric test was observed [Chin 2000; Sánchez-Franco & Roldán 2005]. Table 8 shows the variations in the path coefficients for each culture and for each of the studied relationships. The model is validated for both samples; all beta coefficients are significant and they have the same positive sign. However, the results indicate potential differences between the two subsamples, and most of them are significant (only H2'a is not supported). This supports the moderating effect of culture.

Table 8. Multigroup Analyses

			Parametric Test Difference
	beta t-value	beta t-value	beta t-value
Japan vs Spain	**Japan**	**Spain**	
H1'a: sPASS → Flow	0.489 (8.841***)	0.628 (18.759***)	0.139 (2.261***)
H1'b: USA → Flow	0.288 (4.746***)	0.120 (2.816***)	0.169 (2.280**)
H2'a: Flow → IsWOM	0.533 (8.590***)	0.439 (9.282***)	0.094 (1.172)
H2'b: Flow → RET	0.531 (8.861***)	0.317 (6.692***)	0.214 (2.692***)
H2'c: Flow → REP	0.606 (10.987***)	0.457 (10.311***)	0.148 (2.001**)

Note: *** p<0.01 (t=2.6012). When the t value obtained using the bootstrap method is greater than Student's t value, the hypothesis is confirmed with a significance of 99%. ** p<0.05 (t=1.9722). Note: sPASS = sPASSION; USA = Usability; FLOW = State of Flow; IsWOM = sWOM Intention; RET = Return Intention; REP = Repurchase Intention.

5. Discussion

The purpose of this study is to understand how social commerce users' optimal experience is generated. Based on the assumption that social commerce users have hedonic and utilitarian needs [Farivar et al. 2018; Osatuyi & Qin 2018], and drawing on the SOR framework [Mehrabian & Russell 1974] and flow theory [Csiskzentmihalyi 1975],

this study analyzed how hedonic and utilitarian *stimuli* impact flow state (*organism*), resulting in a positive effect on emotional loyalty and behavioral loyalty (users' *responses*). Furthermore, based on Hofstede's [1980, 2011] cultural dimensions, this study tests the moderating effect of cultural background.

In line with previous studies [Herrando et al. 2018; Luna et al. 2002; Zhang et al. 2018], our results demonstrate that both utilitarian and hedonic stimuli affect flow experience. The findings highlight that social commerce users' optimal experience is generated mainly through hedonic stimuli and drives users' positive responses. In addition, the findings show that usability is assumed nowadays, making way for emotions. Moreover, this study reinforces Eroglu et al.'s [2001] suggestion of using the SOR framework to understand internal states of individuals, and their responses.

The empirical results allow us to reach the following conclusions. First, regarding the stimuli of flow, we conclude that both aspects, hedonic and utilitarian, drive users to reach an optimal experience. Indeed, in both cultures the hedonic stimulus (sPassion) has a bigger impact on users experiencing flow than does the utilitarian stimulus (usability) Thus, in a comparison between hedonic and utilitarian stimuli, flow state is more influenced by the hedonic stimulus (sPassion). Moreover, according to the empirical results, sPassion in Spain has a stronger effect on flow state than in Japan, which could be due to the cultural values of Spanish society, which characterize Spain as a more passionate country (more *feminine*, in Hofstede's terminology; see Table 2) compared to Japan. Therefore, in line with McKinsey [2016], focusing on the hedonic stimulus seems to be an important marketing strategy when it comes to enhancing social commerce users' experience, although to a lesser extent for less passionate countries (like Japan).

Second, regarding the responses arising from the user experiencing flow, this study supports the idea that flow experience results in positive responses [Han 2014; Herrando et al. 2018; Kim & Han 2014; Richard & Chebat 2016] such as sWOM intention (emotional loyalty), repurchase intention and return intention (behavioral loyalty). Overall, the findings indicate that the effect of experiencing flow has a greater influence on users' intentions in Japan (high *long-term-oriented* society) than in Spain (low *long-term-oriented* society). However, while this finding is significant for the relation between flow and intentions to return and repurchase, we find no significant difference between the samples in the relationship between flow and sWOM intention. Bearing in mind that social commerce users' experience is mainly based on socio-commercial interactions, which are the foundations of these kinds of websites, it is significant that sWOM response after experiencing flow does not vary among cultures. Considering that it is precisely through sWOM that users from different cultures can interact, this finding has important implications for business. For decades, e-commerce research has looked for the key to adapting website design to different cultural backgrounds [Moura et al. 2015; Reinecke & Bernstein 2013; Taylor 1992]. Nevertheless, social commerce users' experience benefits from the richness of socio-commercial interactions and, thus, users must coexist on the same website without time or space constraints [Ng 2013; Zhang et al. 2014].

Third, the findings of this study show a common pattern regarding social commerce users' flow experience within the two samples. Although there are significant differences among samples, beta coefficients load in the same direction, which indicates that the model remains steady. That is, testing the model within two different cultures, Japanese and Spanish, allowed us to extend the results and show the validity of the model to explain social commerce users' optimal experience. Nevertheless, as will be expanded upon in section 8, using only two developed countries restrict the results of our cross-cultural study. As a general conclusion, we can state that users' optimal experience is generated mainly from hedonic stimulus, rather than utilitarian, and reaching the state of flow brings positive customer intentions in social commerce contexts regardless of cultural background.

The following sections discuss the study's theoretical and business implications regarding social commerce users' experience.

6. Theoretical Contribution

With the purpose of extending research on social commerce users' experience, this study's main theoretical contributions can be summarized in four ways. First, assuming that users have utilitarian and hedonic needs during social interactions in social commerce – that is, that they look not only for usability when they are online, but also to amuse themselves [Farivar et al. 2018; Osatuyi & Qin 2018] – this study analyzed how utilitarian and hedonic stimuli generate optimal experiences. The results reveal that the hedonic stimulus has a stronger effect on generating flow experience, reiterating the importance of positive emotions for social commerce websites [Herrando et al. 2017; MacInnis & Folkes 2017; McKinsey 2016]. In particular, this research highlights the importance of igniting passion in users by ensuring they have such an optimal experience, which in turn affects their loyalty. This study follows Eroglu et al.'s [2001] suggestion that the SOR framework provides a useful basis on which to understand how certain stimuli elicit the positive responses of the organism. Nevertheless, further research on the study of negative emotions as stimuli could shed more light on the generation of individuals' state of mind during the online experience.

Second, in line with previous studies [Gao & Bai 2014; Herrando et al, 2018; Zhang et al. 2014], reaching an optimal experience drives positive responses; specifically, it enhances emotional and behavioral loyalty. In this vein,

one of the implications of this research comes from studying loyalty in depth, as we distinguish between emotional and behavioral loyalty. In this way, the results can provide academics and marketers with more valuable guidelines on how to generate loyalty through optimizing users' experience. Indeed, users' optimal experience in social commerce is beneficial for both users, since they reach flow state, and companies, because they can enhance users' intention to repurchase, to spread sWOM and to return to the website.

Third, following the call for further cross-cultural research on the social commerce customer experience [Baethge et al. 2016], this study tested the moderating effect of culture on the generation of optimal user experience in social commerce. Although significant differences exist between cultures, users' experiences regarding social commerce follows a similar pattern, regardless of their cultural background, in terms of both its antecedents (stimuli) and its consequences (responses). During years cross-cultural studies in website design have been pursued the perfect paradigm for offering tailored websites depending on localization, culture, language, etc. [Moura et al. 2015; Reinecke & Bernstein 2013; Taylor 1992]. Nevertheless, due to the characteristics of social commerce, it is not reasonable to apply these approaches. Social commerce literature highlights that commercial social interaction is precisely characterized by not having time or space constraints and, therefore, being able to be culturally diverse. Therefore, this study contributes to reinforcing Hofstede's [2011, p. 22] prediction that "*new technologies will make societies more and more similar.*"

Finally, in line with previous studies based on the SOR framework and flow theory [Gao & Bai 2014; Herrando et al. 2018; Liu et al. 2016; Zhang et al. 2014], this theoretical background offers the possibility for understanding how users' state of mind develops and evolves in a parsimonious way, which can in turn be used to study in depth users' experience (this is detailed further in section 8). The SOR framework provides a simple way to understand users' optimal experience at a glance, along with its antecedents and consequences.

7. Business Implications

This study also raises some notable business implications in relation to social commerce users' experience. This study helps companies to understand how to offer an optimal social commerce user experience that results in positive responses regardless of cultural background. The empirical findings highlight the importance of hedonic stimulus on websites, because, in comparison with utilitarian aspects (such as usability) of a website, it is strongly shown that appealing to users' emotions, such as their sPassion, is more effective in generating an optimal navigation experience, regardless of users' cultural background. It should also be borne in mind that users in the digital era may feel that all websites should offer an adequate, useful and informative experience. Therefore, companies that are looking to enhance users' experience must not only carefully design the website in terms of its usability, but also move users' emotions, such as via sPassion. According to the empirical findings, companies can design social commerce websites for a global audience by focusing on stimulating sPassion and offering a useful design in order to improve the customer experience. Once companies have generated an optimal consumer experience through their social commerce websites, users' intention patterns will always show positive responses. Specifically, in high *long-term-oriented* societies such as Japan, intentions will be stronger compared to in low *long-term-oriented* societies such as Spain, although loads will be always positive in both samples.

Having outlined the business implications, we can conclude that although there are differences among cultures, which may exist indefinitely, it seems that social commerce users' optimal experience follows a common pattern, being mainly affected by hedonic stimulus and resulting in positive responses. The most important business implication of this study is that when it comes to generating an optimal customer experience, the societies studied show a strong effect of sPassion on the state of flow. Once in flow, users will show loyalty intentions. In short, based on this study, we can say that different cultures may be more "cut from the same cloth" than previously thought, since, although there are significant differences between the studied countries, both follow similar behavioral patterns.

8. Limitations and Future Lines of Research

This study is subject to certain limitations. First, although the model remained steady and revealed a common pattern, it is not fully generalizable because it only considered two samples. Additional samples representing some other cultures, such as Latin American, North American, African, Oceanian, and Middle Eastern, should be considered in future. Specifically, it would be worth comparing the studied societies with cultures low in uncertainty avoidance and in individualism. In particular, cross-cultural comparisons would be more representative by including a third country, which would allow for controlling the effects of the studied dimensions. Moreover, it has to be stressed that both studied societies are developed countries, so these findings cannot be generalized to developing countries. Second, the sample consists of people between the ages of 18 and 34 years. Although several studies have confirmed that people in this age range constitute an important percentage of global online users, it would be beneficial to collect data from other generational cohorts, not only to widen the samples, but also because cultural values may differ across

societies depending on the generational cohort. Third, due to the advent of artificial intelligence in social commerce [Chattaraman et al. 2019], future research lines in this field should seek to verify the effect of hedonic versus utilitarian stimuli during conversations with digital assistants, and the ways in which loyalty responses can be influenced by this interaction style. Finally, drawing further on the SOR framework, it would be interesting to study negative stimuli and their effects on the organism – for instance on the state of anxiety and boredom, following investigations by Csikszentmihalyi [1975]. This would help to identify what discourages users from showing loyal responses.

Acknowledgement

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Appendix

Table A. Scale

	sPassion – Based on Herrando et al. [2017]:
sPASS1	I am motivated to participate on this social commerce website because I am passionate about it.
sPASS2	I participate on this social commerce website because I care about it.
sPASS3	My passion for this social commerce website's products makes me want to participate in its community.
sPASS4	I like participating on this social commerce website because I can use my experience to help other people.
sPASS5	I really like helping other users with their questions.
sPASS6	I feel good when I can help answer other users' questions.
	Usability – Based on Flavián et al. [2006]:
USA1	The content of this social commerce website is easy to understand.
USA2	On this social commerce website, it is easy to find the information I need.
USA3	The structure of this social commerce website is easy to understand.
	State of flow – Based on Herrando et al. [2018]:
	Concentration – Based on Jackson & Marsh [1996]:
CON1	My attention was focused entirely on what I was doing.
CON2	I was totally absorbed in what I was doing.
CON3	I had total concentration.
	Enjoyment – Based on Koufaris [2002]:
ENJ1	I found my visit interesting.
ENJ2	I found my visit enjoyable.
ENJ3	I found my visit fun.
	Temporal distortion - Based on Agarwal & Karahanna [2000]; Novak et al. [2000]:
TD1	Time seemed to go by very quickly when I used this social commerce website.
TD2	When I used this social commerce website, I tended to lose track of time.
TD3	I often spend more time on this social commerce website than I had intended.
TD4	I feel I am in a world created by the social commerce website I visit.
TD5	Using this social commerce website often makes me forget where I am.
TD6	The world generated by the social commerce website I visit is more real for me than the "real world".
	sWOM Intention – Adapted from Kim & Park [2013]:
IsWOM1	I am likely to provide others with positive information on this social commerce website.
IsWOM2	I am likely to make recommendations on this social commerce website.
IsWOM3	I am likely to encourage others to consider this social commerce website.
	Return Intention – Based on Hausman & Siekpe [2009]:
RET1	I am likely to revisit this social commerce website in the near future.
RET2	I am encouraged to revisit this social commerce website in the near future.
	Repurchase Intention - Based on Kim & Park [2013]; Hausman & Siekpe [2009]:
REP1	I am likely to purchase on this social commerce website.
REP2	Given the opportunity, I intend to purchase on this social commerce website.
REP3	I intend to purchase through this social commerce website in the near future.