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# Service co-creation in social media: An extension of the theory of planned behavior

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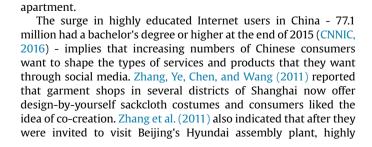[b] School of Business, Macao Polytechnic Institute, Macao

## ARTICLE INFO

## ABSTRACT

Social media have become a major channel through which consumers interact with firms and other consumers. This paper examines the factors that drive consumers to co-create in social media and proposes a theoretical model that extends the theory of planned behavior to include perceived usefulness as a key antecedent of consumer attitudes toward co-creation in social media. The model was tested using responses from 743 Chinese consumers. Results of structural equation modeling confirmed that perceived usefulness was an antecedent of consumer attitudes toward co-creation in social media. The relationship between perceived usefulness and customer attitudes toward co-creation was moderated by the level of consumer involvement, and that relationship was found to be more salient for a high rather than a low level of consumer involvement. Practical and theoretical implications are given.

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## 1. Introduction

Social media are dramatically changing the relationships between individuals, firms, and societies (Leung, 2013; Oakley & Salam, 2014). They enable consumers and firms to interact and exchange all kinds of information, including comments, reviews, invitations, images, photos, and videos. As the proliferation of social media applications continues, firms have a tremendous opportunity to determine consumers' wants and needs and to invite consumers to co-create new services with them. In doing so, firms can adopt customer-dominant logic and become involved in consumers' lives and businesses (Cheung & To, 2015; Heinonen & Strandvik, 2015; Heinonen et al., 2010). Customer-dominant logic is an innovative way of thinking about the relationship between consumers and firms (Heinonen & Strandvik, 2015; Heinonen et al., 2010). This kind of management perspective is dominated by consumer-related aspects rather than a focus on services, products, systems, profits, and costs. Customer-dominant logic is grounded in an understanding of consumers' lives and the manner in which firms' service or product offerings can be embedded in their lives (Heinonen & Strandvik, 2015).

In the Western world, popular social media sites include Facebook, LinkedIn, Google+ (social networking sites), Twitter (a microblogging site), Youtube (a video site), Instagram and Flickr (photo sharing sites), Wordpress (a blog), Microsoft MSDN (a forum), and WhatsApp (a messaging app) (Kaplan & Haenlein, 2010; Piller, Vossen, & Ihl, 2012). In China, two domestic Internet giants, Tencent and Baidu, dominate China's social media environment. The top three social media platforms are owned by Tencent: QQ with 843 million active users, Qzone with 659 million active users, and WeChat with 600 million active users (CIW, 2015). Baidu's Tieba has more than 300 million active users and is ranked fourth, followed by Sina's Weibo with 236 million active users. Similar to their Western counterparts, Chinese social media users can share their views, comments, photos, and videos with fellow users regarding their experiences with different kinds of services and products, ranging from a bus ride to the purchase of an apartment.

The surge in highly educated Internet users in China - 77.1 million had a bachelor's degree or higher at the end of 2015 (CNNIC, 2016) - implies that increasing numbers of Chinese consumers want to shape the types of services and products that they want through social media. Zhang, Ye, Chen, and Wang (2011) reported that garment shops in several districts of Shanghai now offer design-by-yourself sackcloth costumes and consumers liked the idea of co-creation. Zhang et al. (2011) also indicated that after they were invited to visit Beijing's Hyundai assembly plant, highly

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satisfied consumers posted their photos and experiences on blogs. Thus, value co-creation has become a strategic choice for firms, no matter their size or location (Prahalad & Ramaswamy, 2004; Zhang et al., 2011). As noted by Rod, Lindsay, and Ellis (2014), consumer effort in co-creation is helpful in building value within the marketer-consumer dyad.

Given the importance of co-creation, researchers have focused on co-creation experiences and outcomes (e.g., Harrison & Waite, 2015; Kasnakoglu, 2016; Verleye, 2015). However, relatively few studies have examined the antecedents of service co-creation (Morosan & DeFranco, 2016; Verleye, 2015), and no empirical studies have analyzed the conditions of facilitating customer co-creation in computer-mediated environment. To address these research gaps, we have applied and extended the theory of planned behavior (TPB; Ajzen, 1991; Fishbein & Ajzen, 1975) to identify the underlying factors and conditions that drive consumers to co-create in social media. The TPB (Ajzen, 1991; Fishbein & Ajzen, 1975) posits that an individual's intention to engage in a behavior is shaped by his or her attitudes toward the behavior, subjective norms, and perceived behavioral control, whereas his or her intentions and perceived behavioral control influence actual behavior.

When consumers perceive social media to have a high rather than a low level of usefulness in terms of obtaining updated information and suggestions on products and services, they may tend to spend more time and effort learning about products and services and rely more heavily on social media. Increased participation in this channel provides a viable means for consumers to develop a favorable attitude toward co-creating with service firms to improve the features and perceived benefits of products and services. However, we propose that the positive link of perceived usefulness with attitudes toward co-creating through social media may be moderated by the level of customer involvement in social media. In the context of high rather than low customer involvement in social media, consumers who believe that social media are important and interesting will be more reliant on social media as a key channel for obtaining good suggestions and sharing information with others on products and services of interest in a timely manner. These benefits give consumers a greater tendency to develop a favorable attitude toward co-creation in social media.

As indicated, in the TPB, when consumers develop a favorable attitude toward co-creation in social media, they are happier about and more attracted to the use of social media for co-creation activities. In addition, consumers who perceive themselves to be heavily influenced by their peers (including their spouse, friends, and relatives) to co-create are more prone to follow the behavior of these peers and develop a stronger co-creation belief. Finally, when consumers perceive co-creation to be easy, they may encounter fewer obstacles and thus develop a stronger intention to co-create, resulting in actual co-creation behavior.

Thus, this paper aims to answer the research question of "What and when are consumers motivated to co-create in social media?" Accordingly, the objectives of the paper are threefold. First, we examine the link between perceived usefulness and attitudes toward co-creation in social media. Second, we test the moderating role of consumer involvement in the relationship between perceived usefulness and attitudes toward co-creation in social media. Finally, we investigate the effects of attitudes toward co-creation in social media, subjective norms, and perceived behavioral control on the intention to co-create and on actual co-creation behavior in social media. Hence, the study tests whether the lens of the TPB can be applied to the context of co-creation in social media. In practical terms, firms will gain insight from our findings about the importance of developing a high level of consumer involvement in social media and the perceived usefulness of social media when advertising products/services.

The rest of the paper is structured as follows. A literature review on social media and the TPB, the theoretical model, and the five hypotheses of the study are presented in the next section. The method, which includes the sample and questionnaire design, is then presented, followed by the results and discussion. The paper concludes with practical implications and the limitations of the study.

## 2. Literature review and hypothesis development

With the proliferation of mobile technologies, people are able to share their activities, experiences, feelings, and opinions with relatives, friends, and even the general public whenever and wherever they want (Vorderer, Krömer, & Schneider, 2016); this has triggered the phenomenal growth of social media. In emerging markets such as China and India, most people access social media sites using their smartphones or other small mobile devices (Muralidharan, La Ferle, & Sung, 2015; To & Lai, 2015). In contrast, about two-thirds of Americans primarily use notebook or desktop computers to access the Internet (Raine & Cohn, 2014). The use of social media is ubiquitous and has become an intrinsic part of many people's day-to-day lives across the globe. Thus, firms must embrace social media because they have become the main source of information for many consumers (Kaplan & Haenlein, 2010). In a qualitative analysis, Kosonen and Ellonen (2012) found that consumer-driven co-creation in social media added value to the consumer experience and generated brand loyalty.

### 2.1. Antecedents of consumer attitudes toward co-creation in social media

Studies of the acceptance of computer or information and communication (ICT) technologies suggest that attitudes toward the use of a computer/ICT technology are determined by its perceived usefulness and ease of use (Davis, Bagozzi, & Warshaw, 1989; Porter & Donthu, 2006; Taylor & Todd, 1995). Perceived usefulness has a much stronger effect on attitudes toward the use of a new technology than perceived ease of use (Davis et al., 1989; Porter & Donthu, 2006; Taylor & Todd, 1995). In this study, we focus on consumer attitudes toward co-creation in social media. Because social media are ubiquitous in people's daily lives (Midyette, Youngkin, & Snow-Croft, 2014; Yan, He, Shen, & Tang, 2014), we drop the perceived ease of use construct and retain perceived usefulness as an antecedent of the attitude construct. Perceived usefulness is defined as the degree to which an individual believes that the use of a particular system may increase his or her performance (Davis et al., 1989). When consumers trust that using social media will broaden their understanding of the products and services of interest, they have a more favorable attitude toward co-creation in social media. In addition, consumers may recognize social media as an efficient channel for sharing their views with friends and relatives on products and services and helpful for making decisions regarding the purchase of products and services of interest. Thus, a high level of perceived usefulness will lead consumers to develop a favorable attitude toward co-creation in social media. Indeed, perceived usefulness has been found to be a key determinant of consumer attitudes and behavioral intention toward online shopping (Childers, Carr, Peck, & Carson, 2002; O'Cass & Fenech, 2003). Thus, we posit:

**H1.** Perceived usefulness will be positively related to attitude toward co-creation in social media.