Technological Advancement in Marketing: Co-creation of Value with Customers

Completed Research

Mina Tajvidi
Swansea University, UK
Mina.Tajvidi@swansea.ac.uk

YiChuan Wang
Newcastle University, UK
yi-chuan.wang@newcastle.ac.uk

Nick Hajli
Swansea University, UK
nick.hajli@swansea.ac.uk

Abstract
Social commerce is a new concept in consumer activity which has emerged through the phenomenon of social media. Social commerce platform tends to create an environment where consumers can interact with users and marketer. Also, it has been portrayed as a means of managing brands for businesses. This research explores the relationships among social interaction, social support, relationship quality, and consumers’ intention to co-create brand value with applying social support and relationship marketing theories. Empirical data were collected from a social networking website in China. The results demonstrate that social commerce interactions, specifically, user perspective and marketer perspective, positively affect social support and in turn, intention to co-create brand value. Social support positively affects relationship quality. This study provides new insights by proposing a model of co-create brand through social commerce interactions.

Keywords
Social commerce; co-create brand value; social interaction; social media.

1. Introduction
Social commerce is a relatively new concept in e-commerce research, emerging from the powerful combination of customer-oriented social computing technologies and the rising social networking effect in an online environment. Social commerce is defined as the use of Web 2.0 and social technologies to support consumers’ interactions in which they acquire the services and products in an online context (Liang and Turban 2011). According to Forbes Magazine’s news (Stein 2014), approximately 75% of Chinese social media users contribute to product reviews and recommendations at least once a month on brand pages in China’s Social Networking Sites (SNSs), such as Renren. Fans on Renren brand pages’ spend RMB$1,206 on average for a certain computer brand, and surprisingly about RMB 24,000 more for automobile brands according to Nielsen online investigation in 2012 (Liu et al. 2012). Social commerce platform tends to create an environment where consumers can interact with users and marketer. Through such interactions, consumers are most likely to turn into brand ambassadors by leveraging a series of collective, co-creational processes (Cayla and Arnould 2008; Goh et al. 2013; Holt 2003). However, Yadav et al. (2013) suggest that research is needed to carefully examine the path from social interaction to transaction, because frequent interactions on a brand page may not necessarily translate directly into companies’ sales growth and brand values. There are missing factors regarding users’ social influence in between. Therefore, the first we examine the impacts of these social commerce interactions on social influence factors, instead of testing the link between social commerce interactions and intention to co-create brand value. Thus, the second research objective of our study is to test the impacts of social commerce interaction on consumers’ social support and relationship quality in the context of China’s brand communities.

To address the above two objectives we set out to answer the following research questions: can consumers’ intention to co-create brand value be facilitated by increasing social support and relationship quality from intensive interactions with users and marketers in social commerce platforms.

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1 The renminbi is the official currency of the People's Republic of China


2. Theoretical Foundation and Conceptual Model

To answer the research question, it is important to understand the two major differences between China and the US online culture and purchasing behaviors. First, Chinese social media users are most likely to be content creators, while those in the US are primarily content consumers (Stein 2014). This is because Chinese live a more restricted social life due to its immensity and the one-child policy that may result in excessive reliance on social media for transforming how they interact with friends and family in a community they trust. Second, most China’s online users achieve massive purchasing power simultaneously with their social media use. On the other hand, online users in the US, there is still generational gap between purchasing power and social media consumption. Indeed, more than 300 million Chinese move forward with purchasing a product after obtaining consent from their trusted networks (Stein 2014). Based on this context and given the lack of research on social commerce in China, our study attempts to understand whether social interactions with users and marketers in social commerce platforms can increase social support and relationship quality, which in turn affects the intention to co-create value in brand. Therefore, our theoretical framework is grounded in social support theory, relationship marketing theory and the influences of social commerce interactions, as shown in Figure 1 appendix.

2.1 Social support

Social support is defined as “the social resources that persons perceive to be available or that are actually provided to them by non-professionals in the context of both formal support groups and informal helping relationships” (Gottlieb and Bergen 2010). The concept of social support is derived from social support theory. Social support theory has been proposed to explain how social relationships influence the cognitions, emotions, and behaviors (Lakey and Cohen 2000). Social support has been thoroughly investigated in psychology, sociology and health studies. Social support can be regarded as the measures of how an individual experiences the feeling of being cared for, responded to and facilitated by people in their social groups (House 1981). In fact, with the rise of social technologies, content delivery and communication have been made much easier and faster so as to allow users to share information and knowledge. The social support resources can be emotional or informational. From social commerce perspective, emotional support is defined as “providing messages that involve emotional concerns such as caring, understanding, or empathy” (Liang et al. 2011). Informational support refers to “providing messages, in the form of recommendations, advice, or knowledge that could be helpful for solving problems” (Liang et al. 2011). These two sources of social support are fundamental elements to form a social relationship network by interactions in social commerce communities.

2.2 Relationship quality

Relationship quality is defined as the intensity and tightness of a relationship, which plays a pivotal role in influencing customer loyalty (Hennig-Thurau et al. 2002; Palmatier et al. 2006). Relationship quality is a key concept derived from relationship marketing theory (Morgan and Hunt 1994) and it is reflected by three dimensions: trust, relationship satisfaction, and commitment (Garbarino and Johnson 1999; Palmatier et al. 2006). Trust is defined as “a willingness to rely on an exchange partner in whom one has confidence” (Moorman et al. 1993, p. 82). Commitment is defined as a desire to maintain a relationship (Moorman et al. 1993; Morgan and Hunt, 1994). Satisfaction refers to a customer’s overall emotional evaluation of the performance of a service/product provider (Gustafsson et al. 2005).

Prior research has considered relationship as a lens of understanding the consumers’ interactions with brands (e.g., Smit et al. 2007; Swaminathan et al. 2007). Recently, Liang et al. (2011) have applied the relationship perspective as a lens to elucidate the role of relationship quality in the social media context and studied its impact on online consumers’ purchasing intentions. Consequently, relationship quality can be a predictor of a social commerce community member’s intention to co-create brand value.

2.3 Social commerce interactions

Social commerce can be viewed as the delivery of e-commerce via social media (Liang et al. 2011). Social commerce is defined as “exchange-related activities that occur in, or are influenced by, an individual’s social network in computer-mediated social environment, where the activities correspond to the need recognition, pre-purchase, purchase, and post-purchase stages of a focal exchange” (Yadav et al. 2013, p. 312). Yadav et al. (2013) emphasize that the most important element to keep people engaging in social commerce is social interaction activities. Social interaction activities include that consumers engage in before, during, and after a transaction, along with corresponding firms’ initiatives to facilitate those activities. Consumers enabled by social media are distinct from e-commerce contexts, because they can have social interactions with other individuals by using social networking technologies (Park et al. 2007). In this study, we focus on the two types of interaction activities in social commerce platforms, namely...
interaction with users and interaction with marketers as the first layer antecedents. First, interaction with users allows to generate rich user-generated content (UGC) that includes any form of content such as video, blogs, discussion form posts, digital images, audio files, and other forms of media. UGC is created by consumers or end-users of an online system or service and is publicly available to other consumers and end-users.

### 2.4 Intention to Co-create Brand Value

The notion of intention to co-create brand value stems from the work of Vargo and Lusch (2004), which argued that value can be facilitated by a co-creation process where the customers are turned into an active player. Cayla and Arnould (2008) suggested that the constructing of brands is through reaching collective consensus on a brand’s meaning among the members of social brand communities. These members share their brand experiences collectively and deliver the sensory, emotional, cognitive, behavioral and relational value to others, which is a process of co-creating value (Schmitt, 2003). Based on these earlier works, we defined co-create brand value as the intention to co-create the value of the brand and co-construct unique branding experiences through the exchange of information and knowledge with other customers (Prahalad and Ramaswamy 2004; Vargo and Lusch 2004). Recently, Gensler et al. (2013) stress that once online consumers have intentions to co-brand, they are willing to devote their time and effort to providing the shopping experiences and information about brands as well as encouraging others to purchase.

### 3. Hypothesis Development

#### 3.1 The effect of social commerce interactions on social support

With the emergence of Web 2.0 and social relationships commanding a more prominent position in online technologies, social support has become of interest and relevance. Twitter is a good example in which members of communities regularly provide social support for others through members’ interactions (Gruzd et al. 2011). Such a social interaction on SNS shows that members have the ability to influence other members and to help each other (Gruzd et al. 2011). This is of special interest when it comes to customer recommendations, which are considered as a vital source of information for showing consumer supports toward online communities (Senecal and Nantel 2004). Through social interaction with users, they are more likely to receive online social support. The supports that people receive in online communities can be both informational and emotional (Hajli 2014; Ridings and Gefen 2004). Another way of social interaction for users in social commerce is to communicate with marketers. Marketers can trigger the discussion of products or services that enables users to engage in new conversations (Kim and Park 2013). This allows companies to provide specific products-related information to communicate with their customers and strengthen the ties with them, and ultimately promote their brands. Prior research has indicated that frequent interactions between user and marketer in social media brand community are significant to increase consumer trust and purchase intention (Kim and Park 2013). Therefore, this current study considered interaction with marketers as one kind of social commerce interactions that will strengthen the connections and supports among brand pages’ users. The following hypotheses were made accordingly:

**Hypothesis 1:** Interaction with users is positively associated with user’s perceived social support on China’s brand pages.

**Hypothesis 2:** Interaction with marketers is positively associated with user’s perceived social support on China’s brand pages.

#### 3.2 The effect of social support on relationship quality

Social support theory stresses that the effects of social support cannot be separated from relationship processes that often co-occur with support (Lakey and Cohen 2000, p. 29). The formation of social support mechanisms must be linked with interpersonal process and constructs (Lakey and Cohen 2000). Users in a social commerce platform may believe that relationship quality can be guaranteed if they feel that people in online communities provide substantial support to them (Liang et al. 2011). This implies that strong perceptions of social support in communities will influence users’ behavior so that they may be willing to have more connections with others, thereby enhancing the relationship quality. Following this logic, we theoretically tie two theories (i.e., social support and relationship marketing theories) together and examine the impact of social support on relationship quality. Thus, this leads to the following hypothesis.
Hypothesis 3: Social support is positively associated with the user’s perceived relationship quality on China’s brand pages.

3.3 The effect of social support on the intention to co-create brand value

Users in a social commerce platform may believe that relationship quality can be guaranteed if they feel that people in online communities would provide substantial support to them (Liang et al. 2011). Indeed, online users have indicated that social support is one of the main reasons for joining online communities (Ridings and Gefen 2004). This implies that strong perceptions of social support in communities will influence users’ behaviour, encouraging more connections with others, thereby enhancing the relationship quality. Thus, this leads to the following hypothesis:

Hypothesis 4: social support is positively associated with the user’s intention to co-create brand value on China’s brand pages.

3.4 The effect of relationship quality on the intention to co-create brand value

Research on relationship perspective has focused on the formation of actual partnerships between customers and service providers in the real world. It is also certain that an active relationship with high quality would raise the likelihood of positive customer interactions and foster the formation of brand loyalty (Fournier 1998). For example, Fournier (1998) developed a model of relationship quality in the context of consumer product, showing that relationship stability can be facilitated by a robust relationship quality with customers. He also empathized that consumers with high levels of commitment are most likely to dedicate to a brand that fosters relationship stability. However, with the technology advancement in social commerce, interactive relationships in online communities become anonymous, impersonal, and automated (Wang and Emurian 2005). People are more willing to participate in forums and communities, share their experiences and knowledge, and leave their advices and recommendations for other members as they perceive strongly the feelings of trust, satisfaction, and commitment in this community (Hajli 2014). Pentina et al. (2013) demonstrated the effect of brand relationship quality in the social media context based on brand-related marketing theories. It could be argued that, a successful business model based on social commerce should take serious consideration on how to boost relationship quality to encourage online consumers to co-create value for brand communities. This leads to the following hypothesis.

Hypothesis 5: Relationship quality is positively associated with the user’s intention to co-create brand value on China’s brand pages.

4 Research Method

4.1 Sample frame and data collection

This study employed a survey to collect primary data from Renren’s brand pages in China. Due to its Facebook-alike features and its popularity among students, Renren has been called “The Facebook of China.” Renren is one of the largest Chinese social networking sites focusing on users. Recent report from China Internet Watch shows that the number of activated accounts on Renren rose to 194 million from 164 million in 2013, and monthly independent login in accounts grew to 54 million from 45 million in June 2012 (China Internet Watch, 2013). Brands pages on Renren offer the same features and functions as Facebook. Brand page managers can modify the brand pages, identify their members on Renren, and effectively deliver the message to them through the advertising system.

The sample population for this study is Renren members who have been involved in at least one brand page. Data were collected by an online questionnaire in August, 2014 (one month period). We randomly distributed 1000 questionnaires to the IT product brand public pages on Renren. We received 192 useable responses from 1000 invitations, which results in a 19.2% response rate. Of the respondents to the e-survey, 50.52 % were male and 49.48% were female; 82.29% had a Bachelor degree, and 17.71% earned a graduate level degree. Most are under age 40 (85.94%), with fewer subjects over 40 (14.06%).

Non-response bias was assessed by comparing early (those who responded to the first mailing) with the late respondents (those who responded after the reminder) in terms of educational level and age by t-tests. The results showed no statistically significant difference among the groups. We thus determined that non-response bias did not present a problem for this study.

Common method bias. To reduce common method bias, First, we protected respondent-researcher anonymity, provided clear directions to the best of our ability, and proximally separated independent and
dependent variables (Podsakoff et al. 2003). Second, we then tested for bias statistically. The unrotated factor solution indicates that the maximum variance is 24.66%, no factor accounts for 50% or more of the variance, which suggests that common method bias may not be a significant threat to the validity of our study.

### 4.2 Measurement development

Most of the survey instrument items were adapted from prior literature and modified as needed for this study except the new scale of the intention to co-create brand value. A few changes were made to the existing scale to make those more appropriate in the context of social commerce. A pre-test with five doctoral students and five MIS researchers was conducted in the US to make sure the questions and wording were clearly understood by the respondents. Since the targets are the brand pages users in China’s SNSs, the questionnaire was translated into Chinese and a panel of academic experts who currently study Chinese social media examined the face validity of the items. Some modifications to the scales were made in order to match the Chinese context.

### 5. Data Analysis and Results

Given our research model and objectives, SEM has some advantages over other analysis techniques such as linear regression because SEM can examine proposed causal paths among constructs (Rigdon 1998). To this end, we had the option of employing covariance based structural equation modeling (CBSEM) or partial least squares (PLS) path modeling. We considered the extant methods literature, our data characteristics, and our study objectives to determine which technique to apply. For instance, scholars suggest that CBSEM is preferred when the study is confirmatory in nature (Gefen et al. 2011) and the parameter estimates obtained from CBSEM are purported to be less biased than the estimates obtained via PLS (Chin,1998). Considering the decision criteria presented in extant methods literature (Gefen et al. 2011; Hair et al. 2010), we determined that a CBSEM approach would be most appropriate for our study. Therefore, we analyzed the data using IBM Amos 20 (Arbuckle 2011).

#### 5.1 Descriptive statistics, reliability and validity

Table 1 presents the means, standard deviations, Cronbach’s alphas, average variance extracted (AVE), composite reliability (CR) and the construct correlations. The Cronbach’s alphas (ranging from .60 to .90) with all values but one met the recommended cutoff of .70 (Nunnally and Bernstein, 1994) indicate a satisfactory degree of internal consistency reliability of the measures (Bollen and Lennox 1991). Construct reliability was assessed based on the composite construct reliabilities (CR) computed with the formula: \( \rho = \frac{(\Sigma \lambda_i)^2}{(\Sigma \lambda_i)^2 + \Sigma \theta_i} \), where \( \lambda_i \) refers to the ith factor loading and \( \theta_i \) refers to the ith error variance (Hair Jr. et al., 2010, p. 687). As shown in Table 1, CRs range from 0.79 and 0.97, with greater than the commonly accept discriminant validity (Ping 2003). All factor correlations are below .7, which demonstrate the cutoff value of .70 (Gefen et al. 2000; Hair Jr., et al. 2010), which demonstrates adequate reliability of the measures.

Discriminant validity was first assessed by examining the factor correlations. Although there is no firm rule, inter-construct correlations below [.7] provide evidence of measure distinctness, and thus confirm discriminant validity (see appendix Table 1). Another way to examine discriminant validity is to compare the average variance extracted (AVE) to the squared inter-construct correlation. When the AVE is larger than the corresponding squared inter-construct correlation estimates, it suggests that the indicators have more in common with the construct they are associated with than they do with other constructs, which again provides evidence of discriminant validity (Kline 2011). The evidence provided in Table 1 suggests adequate divergent validity of the measures. An alternative approach to test both convergent validity and discriminant validity is the examination of factor loading. Appendix 1 shows that we eliminated three items that have cross loading issue among the constructs and low factor loadings.

#### 5.2 Measurement model

First, we analyzed a measurement model to assess the measurement quality of constructs by using a confirmatory factor analysis (CFA). The measurement model consists of five latent factors (i.e., user perspective, marketer perspective, social support, relationship quality and intention to co-create brand value) with 14 indicators. The model chi-square is statistically significant (\( \chi^2 (67) = 80.681, p < .05 \)), which indicates that the exact fit hypothesis is rejected. However, this test is highly sensitive (Jöreskog and Sörbom 1989). We therefore examined other measures of goodness-of-fit. The comparative fit index (CFI) is .986, which exceeds the cutoff value of .95 (Hu and Bentler 1999) and the standardized root mean square residual (SRMR) is .045 which is less than .08 (Hu and Bentler 1999). The root mean square error of approximation (RMSEA) is .033 which is less than .08 (Byrne, 1998). Thus, we conclude that our data adequately fit the measurement model.
5.3 Structural model

After confirming adequate fit for the measurement model, we assessed the fit of our structural model. The goodness-of-fit of the structural model was comparable to that of the previously described CFA model. The hypothesized model appears to fit the data well ($\chi^2(70) = 82.024$, $p > 0.000$, $CFI = 0.988$, $GFI = 0.945$; $AGFI = 0.919$; $IFI = 0.989$; $RMSEA (90\% CI) = 0.029$ ($0.000, 0.053$), $SRMR = 0.0475$). We did not conduct post-hoc modifications because of the good fit of the data to the model. With evidence of acceptable fit, we proceeded to test our hypotheses (see appendix Figure2).

5.4 Hypotheses testing

The five hypotheses presented earlier were tested collectively using the structural equation modeling (SEM) approach and IBM Amos 20 (Arbuckle 2011). Each indicator was modeled in a reflective manner (as in the CFA), the five constructs were linked as hypothesized. Model estimation was done using the maximum likelihood technique. We chose maximum likelihood parameter estimation over other estimation methods (e.g., weighted least squares, two-stage least squares) because the data were fairly normally distributed (Kline 2011). As shown in Figure 2, all paths are significant at least .05 level. The model predicts 35.8% of the variance in use. Hypotheses testing results are presented in Table 2 (see appendix).

6. Discussion

Our study is to illuminate how social commerce interactions regarding different types of social interactions enable brand page users to better co-create brand values through the presences of social support and relationship quality. The empirical evidence supports our hypotheses and provided three major findings. First, we empirically show that social commerce interactions with user and marketer positively affect social support. Second, data indicate that social support positively correlates with relationship quality. Third, evidence affirms the significant impacts of social support and relationship quality on brand page users’ intention to co-create brand value in social commerce environment. Based on these findings, we offer some insights regarding theoretical and managerial implications in the remainder of this section.

7. Theoretical contributions

This study contributes to the brand management and e-commerce literature in the following ways. First, user engagements and behaviors on brand development in social media has been emphasized on current brand management research (e.g., Habibi et al. 2014; Hollebeek et al. 2014; Hajli 2013). The findings of these prior studies highlight that interaction among users can facilitate social support and relationship quality that lead to co-create value in brand. However, now attention needs to shift from user side to marketer side, focusing on how the impact of interaction with marketers on promoting brand value.

Second, our findings show that quality of social relationships in brand pages is influenced by social support. From a theoretical point of view, we incorporated social support theory from social-psychology and relationship marketing from the marketing field into the social commerce context, and investigated their effects on a new concept of intention to co-create brand value. It is important for standing on the aspects of social support and relationship marketing to understand consumer behavior on brand pages, because robust supportive interactions and relationships are the catalysts of social commerce success (Liang et al. 2011).

Third, although it is not a main goal for this study, a new measurement for evaluating the intention to co-create brand value was built and tested. It converged well and factor loadings are high which implies an adequate measure. This scale could be used as an outcome or an intermediate construct that leads to actual action for future social commerce studies. Overall, we believe that the examination of relationships among social support, relationship quality and intention to co-create brand value contributes to theory and practice as it represents one important and under-studied aspect of social commerce.

8. Managerial Implications

This research also has some practical implications. Our findings reveal a window of opportunity to create brand values with customers. There are lesson to be learned from China’s unique ecommerce consumer base. First, China’s active social media users largely overlap with consumers that have spending power. Second, Chinese are avid content creators on social media. In China, social media has become a practical and useful tool to connect with friend on purchasing rather than a virtual place to hang out with their friends. The rapid e-commerce growth in China is the product of their unique combination of social media and commerce. Coupled with our findings, Business should communicate with consumers better not just put out advertisements. From our findings, interaction with markers has a positive effect on users’ social support. When consumers feel that the business is supportive (better service), they are more willing to comment or share information, and thus co-creating brand value. Using social media and social commerce interaction can be a practical tool for marketing management to develop a new brand. Co-
creation of value with consumers instead of co-creation of value for customers through social commerce interaction is a unique strategy of developing a new brand.

9. Future Research and Conclusion

Future research could extend this study in a number of different ways. First, there is a need to improve the collection of data to increase generalisation in the future. For example, an interesting follow-up study may involve collecting data from global markets in order to examine cultural differences. Likewise, future research could assess potential difference among age groups, with a more representative sample. Second, we incorporated social support and relationship marketing theories into co-create brand value through social commerce model. To the best of our knowledge, this is the first study to empirically examine the relationships among proposed constructs in specific brand pages in Chinese social commerce context. Larger and varied samples from different online communities such as professional-oriented brand community may offer more granular insights into how different communities and social media tools affect the consumers' intention to co-create brand value. Third, future research could consider applying qualitative methods (e.g., content analysis and focus groups), exploring questions such as how consumers' behaviours are affected and to complement the insufficiency of survey method to make stronger inferences.

Reference


Appendix A Constructs and Items with factor loading

<table>
<thead>
<tr>
<th>Codes</th>
<th>Items</th>
<th>Factor Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Social Interaction</strong></td>
<td></td>
</tr>
<tr>
<td>SCIUP1</td>
<td>I will ask my friends on forums and brand communities to provide me with their suggestions before I go shopping from a brand.</td>
<td>0.81</td>
</tr>
<tr>
<td>SCIUP2</td>
<td>I am willing to share my own shopping experience of a brand with my friends through ratings and reviews.</td>
<td>0.78</td>
</tr>
<tr>
<td>SCIUP3</td>
<td>I would like to use people online recommendations to buy a product from a brand.</td>
<td>0.78</td>
</tr>
<tr>
<td>SCIUP4</td>
<td>I am willing to recommend a product of a brand that is worth buying to my friends on the brand page.</td>
<td>Deleted</td>
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</tbody>
</table>

*Interaction with Users (Hajli 2013)*

<table>
<thead>
<tr>
<th>Codes</th>
<th>Items</th>
<th>Factor Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCIMP1</td>
<td>The brand page owner keeps me informed of new development.</td>
<td>0.71</td>
</tr>
<tr>
<td>SCIMP2</td>
<td>The brand page owner listens to my feedback on its service.</td>
<td>0.74</td>
</tr>
<tr>
<td>SCIMP3</td>
<td>The brand page owner provides me with meaningful information.</td>
<td>0.70</td>
</tr>
<tr>
<td>SCIMP4</td>
<td>The brand page owner provides me with timely information.</td>
<td>Deleted</td>
</tr>
</tbody>
</table>

*Interaction with Marketers (Kim and Park 2013)*

<table>
<thead>
<tr>
<th>Codes</th>
<th>Items</th>
<th>Factor Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td>SS1</td>
<td>When faced with difficulties, some people on the brand pages comforted and encouraged me.</td>
<td>0.73</td>
</tr>
<tr>
<td>SS2</td>
<td>When I encountered a problem, some people on the brand pages would give me information to help me overcome the problem.</td>
<td>0.87</td>
</tr>
<tr>
<td>SS3</td>
<td>When faced with difficulties, some people on the brand pages would help me discover the cause and provide me with suggestions.</td>
<td>Deleted</td>
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</tbody>
</table>

*Social Support (Liang et al. 2012)*

<table>
<thead>
<tr>
<th>Codes</th>
<th>Items</th>
<th>Factor Loading</th>
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</thead>
<tbody>
<tr>
<td>RQ1</td>
<td>I feel a sense of belonging to my favorite brand page.</td>
<td>0.70</td>
</tr>
<tr>
<td>RQ2</td>
<td>I am satisfied with using my favorite brand page.</td>
<td>0.88</td>
</tr>
<tr>
<td>RQ3</td>
<td>My favorite brand page is a reliable social networking site.</td>
<td>0.81</td>
</tr>
</tbody>
</table>

*Relationship Quality (Liang et al. 2012)*

<table>
<thead>
<tr>
<th>Codes</th>
<th>Items</th>
<th>Factor Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICB1</td>
<td>I am willing to provide my experiences and suggestions when my friends on my favorite social networking site want my advice on buying something from a brand.</td>
<td>0.87</td>
</tr>
<tr>
<td>ICB2</td>
<td>I am willing to buy the products of a brand recommended by my friends on my favorite social networking site.</td>
<td>0.91</td>
</tr>
<tr>
<td>ICB3</td>
<td>I will consider the shopping experiences of my friends on my favorite social networking site when I want to shop a brand.</td>
<td>0.86</td>
</tr>
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</table>

*Intention to Co-create Brand Value (Newly Development)*

<table>
<thead>
<tr>
<th>Codes</th>
<th>Items</th>
<th>Factor Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Social Support</strong></td>
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<td></td>
<td><strong>Intention to Co-create</strong></td>
<td></td>
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<tr>
<td></td>
<td><strong>Relationship Quality</strong></td>
<td></td>
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<td></td>
<td><strong>Social Commerce Interactions</strong></td>
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Figure 1. Research model
Figure 2. The result of structural model

Indices of Model Fit: ($\chi^2$ (71) = 82.024, p > 0.000, CFI = 0.988, GFI=0.945; AGFI=.919; IFI=.989; RMSEA (90CI) = 0.029 (0.000, 0.053), SRMR = 0.0475)

Table 1. Descriptive Statistics and Correlation

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>S.D.</th>
<th>Cronbach’s alpha</th>
<th>Composite Reliability</th>
<th>IWU</th>
<th>IWM</th>
<th>SS</th>
<th>RQ</th>
<th>ICB</th>
</tr>
</thead>
<tbody>
<tr>
<td>IWU</td>
<td>3.46</td>
<td>1.51</td>
<td>0.74</td>
<td>0.84</td>
<td>.64</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IWM</td>
<td>3.59</td>
<td>0.97</td>
<td>0.60</td>
<td>0.85</td>
<td>.02</td>
<td>.66</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SS</td>
<td>3.8</td>
<td>1.38</td>
<td>0.69</td>
<td>0.79</td>
<td>.17*</td>
<td>.22**</td>
<td>.66</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RQ</td>
<td>4.5</td>
<td>1.25</td>
<td>0.85</td>
<td>0.95</td>
<td>.07</td>
<td>.02</td>
<td>.23**</td>
<td>.86</td>
<td></td>
</tr>
<tr>
<td>ICB</td>
<td>3.97</td>
<td>1.34</td>
<td>0.90</td>
<td>0.97</td>
<td>.09</td>
<td>.07</td>
<td>.35**</td>
<td>.47**</td>
<td>.91</td>
</tr>
</tbody>
</table>

Note: N=192; AVEs on diagonal

Legend: IWU (interaction with users); IWM (Interaction with marketers); SS (Social support); RQ (Relationship quality); ICB (Intention to co-create brand value)  *p<0.05, **p<0.01

Table 2. Hypotheses Testing Result

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Path coefficient</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>H₁ Interaction with users $\rightarrow$ social support</td>
<td>2.59*</td>
<td>Supported</td>
</tr>
<tr>
<td>H₂ Interaction with marketer $\rightarrow$ social support</td>
<td>2.75**</td>
<td>Supported</td>
</tr>
<tr>
<td>H₃ Social support $\rightarrow$ relationship quality</td>
<td>2.93**</td>
<td>Supported</td>
</tr>
<tr>
<td>H₄ Social support $\rightarrow$ intention to co-create brand value</td>
<td>2.97**</td>
<td>Supported</td>
</tr>
<tr>
<td>H₅ Relationship quality $\rightarrow$ intention to co-create brand value</td>
<td>5.88***</td>
<td>Supported</td>
</tr>
</tbody>
</table>

*p<0.05, **p<0.01, ***p<0.001