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Customer engagement with brands in social media platforms:

Configurations, equifinality and sharing

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Abstract

Purpose – Social media brand platforms have become a popular means for engaged customers to share information and experiences with brands and other customers. However, empirical research on how customer engagement (CE) relates to customers' sharing intentions with the brand is limited. This study investigates causal patterns of four CE dimensions—focused attention, absorption, enthusiasm and interaction—together with two cognitive structure properties in stimulating sharing intentions with the brand.

Design/methodology/approach – Using data from 782 Chinese customers of brand pages on the social media platform Weibo, this paper is the first to use both finite mixture partial least squares (FIMIX-PLS) analysis and fuzzy-set qualitative comparative analysis (fsQCA) to empirically assess the impact of CE configurations on sharing intentions.

Findings – The findings imply that not all of the CE dimensions co-occur necessarily and that different configurations of them can produce superior sharing intentions, conditional on the cognitive structure of customers, including their level of brand knowledge and avant-gardism.

Research limitations/implications – Although restricted to customers on Weibo, the results inform practice about how social media technology can facilitate different CE configurations and customer sharing intentions.

Practical implications - The results inform brand managers' segmentation efforts and customer engagement content marketing initiatives that can induce different CE configurations and customer sharing intentions with customers that possess high avant-gard and brand knowledge characteristics.

Originality/value – This study is the first to substantiate how different CE configurations (as gestalts) affect sharing intentions in social media, and to challenge conventional net-effects thinking about CE dimensions. Understanding how such conditional configurations foster sharing via a social media platform is advantageous because it can improve segmentation efforts to strengthen brand relationships.

Keywords: customer engagement, social media, sharing, FIMIX-PLS, fsQCA

Paper type: Research paper

Customer engagement with brands in social media platforms: Configurations, equifinality and sharing

Introduction

Global brands are dedicating significant resources towards managing a presence on one or more social media platforms-including Facebook and Instagram in the U.S. and Weibo and WeChat in China—to better engage customers with branded content and strengthen customer-brand relationships (Kumar et al., 2016; Zhang et al., 2014). For instance, reflecting the growth in the volume of social media users in China, it is anticipated that by 2020, total revenue on social media marketing will exceed \$USD1.42 billion, increasing from \$USD1.08 billion in 2016 and faster than that for any other channel (Statista, 2016). Delivering efficient engagement initiatives on social media now represents the next frontier in how brands involve their customers to foster co-creation and innovation opportunities (Carlson *et al.*, 2018; Harmeling *et al.*, 2017). In these technology platforms, customers now actively participate in value co-creation practices such as sharing their knowledge, ideas, and preference information to support and collaborate with the brand (Alexander and Jaakkola, 2016; Hollebeek et al., 2017; Skalen et al., 2015). Central to successful management of such interactions is an understanding about what stimulates customers' sharing behavior in social media with the brand. Notwithstanding the recognized role of sharing (Hollebeek et al., 2016), little is known regarding how customer engagement leads to sharing behaviours within dynamic, interactive social media platforms.

In recent years, a significant amount of attention has been directed towards understanding the concept of customer engagement (CE). However, this work has varied in conceptual approach. For instance, CE can concern psychological processes that reflect customers' interactive and co-creative experiences and their connections with a focal brand and its activities such as websites and other computer-mediated entities (Brodie *et al.*, 2011; Mollen and Wilson, 2010). In this area of research, the nature of CE contains cognitive, emotional and behavioral processes (Hollebeek *et al.*, 2016; 2014; So *et al.*, 2014). On the other hand, Van Doorn *et al.* (2010) view CE as denoting the specific types of customer behavior that have a brand focus, which they term customer engagement behavior (CEB).

In this study, we follow the Service Dominant (SD) logic-informed CE framework advanced by Hollebeek *et al.*, (2016) which refers to CE as "a customer's motivationally driven, volitional investment of focal operant resources (i.e. cognitive, emotional, behavioral, and social knowledge and skills), and operand resources (e.g. equipment) into brand interactions in service systems" (p.6). In doing so, we draw on Hollebeek (2011) and apply the tripartite conceptualization of CE as capturing cognitive, affective and behavioural elements (see also Brodie *et al.*, 2011). Associated CE dimensions are distinct from CE consequences (Hollebeek *et al.*, 2014) that include actual or intended CEBs such as intentions to share information with the brand on social media (i.e. sharing intentions in our framework). This implies that sharing intentions arise from heightened psychological processes of CE induced by the social media brand presence (i.e. brand-related stimuli).

Although the benefits of CE and associated CEBs for brands are apparent, theoretical and empirical research that explains how CE dimensions translate into various forms of CEB intentions within social media contexts is at the emergent stage of development. For instance, many prior CE studies that address social media settings are conceptual in nature (e.g. Bowden *et al.*, 2017; Brodie *et al.*, 2011; Harmeling *et al.*, 2017) with the available empirical work narrow in its conceptualization of CE (e.g. Blasco-Arcas *et al.*, 2016; de Vries and Carlson, 2014; Jahn

and Kunz, 2012), with the exception of the works of Brodie *et al.* (2013) and Hollebeek *et al.* (2014) which take a multidimensional perspective on CE. Furthermore, there is little focus on examining the influence of CE dimensions on sharing intentions toward the brand.

Moreover, although CE is considered multidimensional, less is known about the possible interdependencies of CE dimensions and how ensuing configurations of CE may relate to various forms of CEBs. That is, while prior works consider the net-effects of individual CE dimensions, their effects in consideration of patterns that are characterized by their interdependencies remain unclear. For instance, the popular press refers to subgroups of social media customers as 'Internet subcultures' that reflect specific patterns of psychological responses and behaviors (e.g. Ganesan 2017), and previous social media studies suggest that consumption of branded content on social media varies across different customer groups conditional on their needs for convenient access to the brand, latest brand information to learn about latest developments and entertainment (Campbell et al., 2014; Claffey and Brady, 2017; Tsai and Men, 2013). Furthermore, other previous social media studies suggest that customer cognitions such as strong brand knowledge are critical, as they act as a precondition and starting point for CE and associated behavioral intentions to arise (de Vries and Carlson, 2014; Dijkmans et al., 2015). Thus, configurations that capture both the customer's cognitive structure and CE responses within branded social media websites may affect sharing intentions. Existing research is, however, silent on such interdependencies and configurational logics.

Accordingly, this paper is guided by the following research question: are there configurations of CE dimensions, conditional on a customer's cognitive structure, which have an impact on CEB intentions and, in particular, sharing intentions? Understanding such conditional CE configurations is advantageous, because sharing with the brand via social media by customers is vital to strengthening brand relationships, as well as boosting the success of innovation efforts and new product/brand developments and, thereby, can assist in growing brand value and profitability (Carlson *et al.*, 2018; Hollebeek and Andreassen 2018).

In addressing this research question, the present paper advances existing CE research as follows: The tripartite conceptualization of CE (i.e. Hollebeeek, 2011), in combination with linking CE dimensions with CE consequences (i.e. Hollebeek *et al.*, 2014), provides a basis to study the impact of CE attitudes (that capture four CE dimensions) on sharing intentions (that as an intended CEB capture an important CE consequence). This reasoning draws on the classical understanding about attitudes encapsulating cognitive, affective and behavioural aspects, and the attitude-intention link (Bagozzi *et al.*, 1979; Breckler 1984). Then, drawing on the works that suggest that individuals process attitudinal information configurally rather than construing the impact of each attitude separately (e.g. Wyer and Carlston, 1979), we apply the argument concerning evaluative-cognitive consistency (Prislin, 1996) and outline that different gestalts of CE dimensions, in consideration of certain customer cognitive structures, exist that distinguish between customer groups and that produce similar CE consequences measured in terms of sharing intentions.

In turn, the paper provides one chief contribution and a secondary one. First, it clarifies current assumptions that concern the conceptualization of CE dimensions within the context of social media platforms. In the present study, focused attention, absorption, enthusiasm and interaction represent CE's constituent dimensions. While other CE dimensions are plausible, these four are not only specifically applicable to computer-mediated social media platforms but also have received recent scholarly attention (see Harrigan *et al.*, 2017; Hollebeek *et al.*, 2014; So *et al.*, 2014; Vivek *et al.*, 2014).

Moreover, this paper offers theoretical substantiation and empirical support for the notion that a consideration of the individual net-effects of these CE dimensions is insufficient and that not all of them matter alike. Different CE configurations exist that are characterized by differences in CE dimensions. Notwithstanding such differences in CE configurations, they may, however, yield the same levels of sharing intentions. That is, there are several possible pathways (configurations of CE dimensions in consideration of customer's cognitive structures) that lead to high sharing intentions, a phenomenon called equifinality (Katz and Kahn, 1978). Accordingly, the impact of CE dimensions is interdependent and conditional on there being, in a customer's cognitive structure, certain required levels of brand knowledge and avant-gardism; representing the conditional impact of a customer's cognitive structure on how CE dimensions relate to sharing intentions. Thus, this paper makes an important contribution to our understanding of CE in social media platforms by demonstrating that conditional configurations of CE dimensions exist that have an equifinal impact on sharing intentions. This means that the same level of sharing intentions is explained equally well by alternate configurations of CE dimensions, and that considering net-effects only of individual CE dimensions is erroneous.

Second, this study introduces an innovative approach to CE research that combines finite mixture partial least squares (FIMIX-PLS) analysis (Sarstedt *et al.*, 2016) to assess potential heterogeneity with fuzzy-set qualitative comparative analysis (fsQCA) (Fiss, 2011, Gelhard *et al.*, 2016). This approach goes beyond an analysis of individual net-effects of single CE dimensions and enables empirically assessing the impact of possibly interdependent CE dimensions as configurations that are conditional on certain levels of a customer's brand knowledge and avant gardism in an equifinality context within social media. We incorporate the principle of equifinality, which implies that the outcome of interest (sharing intentions) can

equally be explained by alternative sets of causal conditions that combine in sufficient configurations for the outcome (Agic *et al.*, 2016; Fiss, 2011; Woodside, 2013). As such, the value of this approach lies in the ability to capture combinatorial complexities assuming asymmetrical relationships between variables, rather than symmetrical net effects that structural equation modeling (SEM) approaches consider (Jiang *et al.*, 2016). Because configurations can describe CE dimensions in social media contexts, the use of fsQCA for this study is not only appropriate but also may serve as a path for future use in CE research.

The remainder of the paper is structured in four sections. The first section takes an interdisciplinary approach to synthesize the related literature across marketing and information systems domains with specific attention given to CE dimensions and its interrelationship with sharing intentions within a branded social media platform. The second section develops the conceptual arguments for empirical assessment. In the third, the methodology, analysis and results are outlined. Finally, the implications of the results for theory and practice are discussed. These include marketing approaches that allow leveraging the understanding produced in this paper about the conditional and configurational impact of CE dimensions on sharing intentions. This, in turn, may assist in capturing co-creation and innovation opportunities from customers. The paper concludes with limitations and directions for future research.

Conceptual Framework

The logic that underpins the theorizing put forward in this paper draws on two key arguments. First, CE dimensions affect sharing intentions. Second, the effects of CE dimensions on sharing intentions are not independent but configurational, and conditional in nature. In the following section we elaborate on these two arguments.

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In classical attitude theory, attitudes refer to associations between an attitude object and an evaluative category. Attitudes encapsulate positive and negative affect, cognition, and behavioural information about all ranges of attitude objects. Attitudes form from beliefs about objects, feelings toward objects, and behaviours directed at the objects (for a review, see Eagly and Chaiken, 1993). This tripartite model provides a "theoretical umbrella" to organize and conceptualize attitudes as responses comprising cognitive, affective and behavioural processes (Bagozzi et al., 1979; Breckler 1984). Drawing on this theorising, our conceptualization considers four critical CE dimensions that represent attitudes capturing focused attention, absorption, enthusiasm and interaction which, when heightened, act as drivers of customer sharing intentions (Bagozzi *et al.*, 1979; Ostrom *et al.*, 1969).

This link between CE dimensions and sharing intentions with the brand is further founded on social exchange theory (Blau, 1964) and resource exchange theory (Foa, 1971), whereby customers reciprocate when they derive benefits from the experiences relating to their CE responses such that they develop favourable sharing intentions. While negative CE experiences (Bowden *et al.*, 2017) can yield intentions of an undesirable nature (Lee and Youn, 2009), this study focuses on sharing intentions that are positive in nature. The four CE dimensions (e.g. perceptions of focused attention, absorption etc.) are attitudes that represent evaluations reflecting some degree of favor (c.f. Eagly and Chaiken, 1993) towards reciprocating which, in turn, translate into sharing intentions (c.f. Fishbein and Ajzen, 1975).

In addition, the extent to which the four CE dimensions relate to sharing intentions is conditioned by a customer's cognitive structure (c.f. Krosnick *et al.*, 1993; Prislin, 1996) including (1) the customer's brand knowledge, and (2) avant-gardism motive which refers to the customer keeping up to date with brand developments and the creation of a new image by using the brand (Ganesh *et al.*, 2010). This conditioned impact of CE dimensions on sharing intentions reflects a certain evaluative-cognitive consistency (Prislin, 1996): A fundamental principle in the attitude strength literature is that strongly held attitudes are the result of relatively effortful cognitive elaboration about beliefs of an object (Petty and Cacioppo, 1986) and that these strong attitudes yield meaningful consequences (Kwon and Nayakankuppam, 2015). Moreover, the stronger the consistency between the evaluation of the attitude object (i.e. favorable CE derived from visiting and using the brand page) and cognitions concerning the instrumentality of the attitude object for valued goals (i.e. gratifying avant gardism needs on the brand page), the stronger the influence on actual, or in our framework intended, behavior (Prislin, 1996). As such, customers demonstrating greater knowledge about and avant gardism motivation towards a brand devote more attention and exert greater cognitive effort toward the processing of relevant information, which, in turn, affects attitude strength (c.f. Celsi and Olson, 1988).

Therefore, highly knowledgeable and avant-gardism driven customers will increase their information processing and elaboration with the kind of social media brand page that together serve to intensify or elongate CE dimensions. On this basis, we focus our examination of cognitive structure properties on those relating to brand knowledge and avant-gardism given their importance and relevance to attitude formation of brands in social media.

Since the four CE dimensions are attitudes that represent evaluations reflecting some degree of favor (c.f. Eagly and Chaiken, 1993) towards sharing intentions, the strength with which they are held should further explain the extent to which CE dimensions translate into sharing intentions (c.f. Fazio and Zanna, 1981). That is knowledge about the brand (c.f. Wood, 1982) and evaluative-cognitive consistency affect the strength of these attitudes and thus influence the extent to which certain CE dimensions are consequential (c.f. Armitage and

Conner, 2000). These two properties—knowledge and evaluative-cognitive consistency describe those customer cognitive structures (Krosnick *et al.*, 1993) that we suggest help better understand the conditional and configurational impacts of CE dimensions. Thus, while the acceptance of CE dimensions as causal conditions is necessary to the understanding of customers' sharing intentions in social media environments, so is appreciation of the causal significance of customers' cognitive structure consisting of brand knowledge and avant gardism. As such, configurations that encapsulate both CE dimensions and customers' cognitive structures are important to the understanding of sharing intentions.

To this end, in order to explain and better understand sharing intentions in social media, a configurational conceptualization of causal factors is more appropriate than an examination of individual factors and their net-effects which basically neglects their conditional and interdependent impacts. The following illustration outlines our conceptual framework (Figure 1). The sets of constructs in our framework reflect the outcome of interest (dependent variable) and two sets of causal conditions to explain this outcome (independent variables). Specifically, the outcome of interest is sharing intentions in social media (i.e. a form of CEB), and the two sets of causal conditions are the customers' CE dimensions (i.e. focused attention, absorption, enthusiasm and interaction) contingent on two customer cognitive structure properties (i.e. brand knowledge and avant-gardism). Our conceptualization assumes the possibility of interactions amongst different CE dimensions (e.g., Wyer and Carlston, 1979) and also the two cognitive structure properties (e.g., Prislin, 1996). The intersections in Figure 1 represent illustrative configurations, which resemble conceivable higher-level interactions.

Insert Figure 1 here

Propositions

In line with recent studies that examine configurational arguments (e.g. Leischnig and Woodside, 2017; Saridakis and Angelidou, 2018), in this paper, two propositions are developed to encapsulate the conceptual arguments outlined in the previous section. Their development draws on further elaboration of the concept of CE and how CE dimensions relate to sharing intentions with the brand.

Customer engagement

Whilst the study of CE has attracted growing attention in the marketing literature (c.f. Harmeling *et al.*, 2017; Hollebeek *et al.*, 2016; Pansari and Kumar, 2016), there is no uniformly accepted conceptualization of CE and its dimensionality. For example, some authors conceive a unidimensional nature of CE which reflects behavioral elements (e.g. Blasco-Arcas *et al.*, 2016; de Vries and Carlson, 2014; Jahn and Kunz, 2012;), whilst other studies offer a broader perspective and include cognitive, affective, and behavioral elements. For instance, Hollebeek *et al.* (2014) suggest that CE dimensions in the social media context includes elements of cognitive processing, affection, and activation. In a similar fashion, So *et al.* (2014) conceptualize CE as including enthusiasm, attention, absorption, interaction and identification in the context of tourism brands. Likewise, Vivek *et al.* (2014), in the context of consumer and retail brands, conceptualize CE as conscious attention, enthused participation, and social connection. Other research in the information systems field, involving human-computer interactions which resemble CE-like qualities, has centered on the concept of flow. Flow referring to the individuals' evaluation when they act with total cognitive involvement so that they become absorbed in their activity, lose a sense of self-consciousness, experience a distortion of time, and feel in control of their environment (Csikszentmihalyi, 1990). Past Internet-based studies have shown that flow is partially based on the interpretation of stimuli within a computer-mediated environment by the individual (Carlson *et al.*, 2017; Carlson and O'Cass, 2011; Pelet, Ettis and Covart 2017) where a website enables its customers to experience flow by providing: (1) a seamless sequence of responses facilitated by machine interactivity, (2) intrinsic enjoyment, (3) a loss of self-consciousness and (4) self-reinforcement (Huang, 2006; Novak *et al.*, 2000). Hoffman and Novak's (2009) comprehensive examination of the literature suggests that a flow experience offers a number of benefits to customers including exploratory and positive behaviors which directly benefit the brand (cf. Carlson *et al.*, 2017; Landers *et al.*, 2015; O'Cass and Carlson, 2010; Pelet et al., 2017).

When synthesizing the aforementioned works in the literature examining customers' interactions with brand-related stimuli on a website, four psychological processes can be singled out that constitute CE specifically within branded social media platforms: namely, focused attention and absorption (representing cognitive components of CE), enthusiasm (representing a affective component of CE) and interaction (representing a behavioural component of CE). *Focused attention* reflects the degree of attentiveness, focus and connection that a customer has on branded social media activities (Harrigan *et al.*, 2017; So *et al.*, 2014). *Absorption* emerges when an individual becomes fully concentrated and deeply engrossed in a branded social media activity that time passes quickly and one has difficulty detaching from his/her role (Carlson *et*

al., 2017; So *et al.*, 2014). Then, the third CE dimension, *enthusiasm*, represents an individual's heightened level of excitement and affection regarding the focus of engagement (Harrigan *et al.*, 2017; So *et al.*, 2014), such as a brand's social media platform. Finally, *interaction*, the fourth CE dimension, refers to a customer's intensity of their interactive and integrative participation in a brand's social media platform (de Vries and Carlson, 2014; Harrigan *et al.*, 2017; Jahn and Kunz, 2012). Interaction is also conceptually similar to the CE dimension of activation offered by Hollebeek *et al.* (2014). While, plausibly, other psychological processes could matter, in this study the focus is on the present four CE dimensions, due to their having greater relevance in an interactive, computer-mediated environment, such as social media, and their past empirical examination in scholarly CE and online customer behavior research.

However, subgroups of social media customers may differ in how specific configurations of these CE dimensions relate to sharing intentions toward online services. As indicated, cognitive structure properties concerning social media consumption of branded content are likely to vary across such groups, according to differences in their desire for entertainment, convenience and information seeking (Campbell *et al.*, 2014; Tsai and Men, 2013). Thus, while the CE dimensions that characterize customers may share some commonalities, the ways they matter to customers in certain contexts are likely to differ because of variations in their cognitive structure. Thus, the extent to which particular CE dimensions have a bearing on and affect sharing intentions may be heterogeneous rather than homogeneous across customers, subject to their cognitive structure. That is, the impact of CE dimensions may differ conditional on the customers' brand knowledge and avant gardism.

Customer engagement and sharing intentions

In the emerging CE literature, scholars in a variety of consumption contexts contend and empirically show that CE exerts a direct influence on a customer's evaluations of a brand. For example, in extending the behaviorally oriented, uni-dimensional perspective of CE, Hollebeek *et al.* (2014) show that CE includes cognitive processing, affection and activation elements which influence continued usage behavior of social media platforms. So *et al.* (2014) also find that CE captures multiple dimensions that affect commitment and behavioral loyalty toward hotel and airline brands. Then, Vivek *et al.* (2014) find support for various CE dimensions' influence on future patronage intention in regard to consumer and retail brands.

Because the psychological processes relating to CE influence a variety of behaviors, including those beyond purchasing, the nature of these relationships in the branded social media context may be transferable to sharing intentions. Specifically, as we have argued conceptually, we suggest that the CE dimensions relate to the experiences and judgments involving cognitive, emotional and behavioral responses evoked by brand-related stimuli (e.g. Brakus *et al.*, 2009; Brodie *et al.*, 2011; So *et al.*, 2014). Customers reciprocate when they derive benefits from the experiences (cf. Blau, 1964; Foa, 1971) relating to their CE evaluations, such that they develop sharing intentions (Carlson *et al.*, 2018). Accordingly, these CE dimensions represent attitudes (cf. Eagly and Chaiken, 1993) towards sharing intentions. Hence, and acknowledging the arguments in the literature that CE dimensions influence loyalty behavior to a brand entity (cf. Brodie *et al.*, 2011; Hollebeek *et al.*, 2016), individuals who strongly engage in the consumption experience of a branded social media platform across focused attention, absorption, enthusiasm and interaction are more likely to participate in sharing behaviors in the future. In doing so, they

and brand experiences, as well as more willing to reveal information about their preferences for the brand. Thus, our first proposition is as follows:

Proposition 1: CE dimensions (focused attention, enthusiasm, absorption and interaction) positively relate to sharing intentions.

Conditional impact of customer engagement dimensions on sharing intentions

Although extant literature shows that customers who engage with a social media platform through focused attention, absorption, enthusiasm and interaction are likely to form sharing intentions, these CE dimensions, and potentially related unique gestalts of them, are possibly sufficient but not necessary predictors of sharing intentions. According to the earlier argument concerning the configural impact of CE dimensions (e.g., Wyer and Carlston, 1979) and the likely existence of subgroups of social media customers with certain patterns of CE dimensions, customers possibly demonstrate the same levels of sharing intentions (de Vries and Carlson, 2014), both despite their heterogeneous combinations of levels of different CE dimensions and because of their similar cognitive structure.

A customer's cognitive structure—that is, in this context, brand knowledge and avantgardism—affects the evaluative-cognitive consistency pertaining to the impact of CE dimensions. As such, these two cognitive structure attributes play a critical role in our theorizing and should affect customers' participation in the brand's social media presence via activated information processing which intensifies CE evaluations (i.e. each CE dimension) and, ultimately, sharing intentions. Early online community research by Bagozzi and Dholakia (2002) showed that desire, or motivation, was considered as a transformative function in online communities, which greatly influenced customers to engage with them. Brand community research by Algesheimer *et al.* (2005) has also established that brand knowledge is important as it captures the aspects of both interest in the brand and the customer's previous experience level with it, suggesting that knowledgeable customers derive greater personal benefit.

Despite limited research on the role of cognitive structure in social media, drawing on prior online retailing literature indicates that avant-gardism motivation of customers may explain the impact of the nature of social media consumption experiences and the associated attitudes towards the brand. For instance, studying online shopping motivations and behavior, Ganesh *et al.* (2010) identify that customers with high avant-gardism motives aim to satisfy utilitarian needs since these customers seek brand-related information about new trends and develop a new self concept—that is, they harbor task-oriented, in addition to purely escapist, motives. Recent social media work in brand communities also empirically confirms that customers derive brand learning and hedonic benefits from brand interactions (Carlson *et al.*, 2017; Tsai and Men 2013).

Drawing from these combined insights, we argue that under conditions of high brand knowledge, social media usage should then be shorter since customer familiarity is high and quick access to information suffices. This being the case, the CE dimension of absorption may not be a central condition given the need of time for it to be experienced (Novak *et al.*, 2000). On the other hand, customers with high avant-gardism in the absence of brand knowledge are novice customers who seek to use a brand's social media primarily for keeping up to date with new trends, browsing for new products, and creating a new image for themselves or their possessions. However, hedonic needs may, in fact, also motivate these customers to further their hithertolacking learning about the brand and to display enthusiasm for it, which assists the development of their self-concept as an early adopter (Ganseh *et al.*, 2010). Under these conditions, we theorize for the social media context that this group of customers is likely to activate all CE dimensions including absorption, given that greater time spent on consumption of brand-related stimuli in a computer-mediated environment enables an absorptive experience to arise (Carlson *et al.*, 2017). As a consequence, we expect highly engaged customers more likely develop sharing intentions in an effort to learn more about new trends, to acquire new brand-related information which satisfies avant-gardism needs, and to share insights with the brand.

Based on the above discussion, there may be heterogeneity in how certain CE dimensions affect their sharing intentions. The nature of this impact is likely to be contingent on levels of brand knowledge and avant-gardism in the context of use of the branded social media platform. Specifically, as we have explained earlier, the extent to which the four CE dimensions relate to sharing intentions must account for their interdependent impact and is conditioned by a customer's cognitive structure (cf. Krosnick *et al.*, 1993; Prislin, 1996), and (1) customer's brand knowledge, and (2) avant-gardism motive, in particular. While CE dimensions are causal conditions for the understanding of customers' sharing intentions in social media environments (as per Proposition 1), the customers' cognitive structure, consisting of brand knowledge and avant-gardism, matter, too. As such, configurations that encapsulate both the CE dimensions and the customers' cognitive structure properties are important to understand sharing intentions. Therefore, there is likely equifinality of certain predictor configurations of a customer's cognitive structure and CE dimensions leading to strong sharing intentions in relation to the branded social media platform.

Proposition 2: Equifinality characterizes certain configurations of CE dimensions conditional on customers' brand knowledge and avant-gardism.

Methodology

Sample

Data was drawn from users of Weibo, a microblogging social networking platform (similar to Twitter), in P. R. China. In May 2017, Weibo had 340 million active monthly users (up 30% from previous year) and overtook the size of Twitter's user base (BBC, 2017). Customers involving themselves in this platform are suitable respondents to investigate CE with brands in the social media environment. An online survey administered to a customer panel by SoJump in China served to collect data over a 10 day period from randomly selected members of Weibo, 18 years and over. Respondents had to have made a purchase from the brand in the previous month. A non-probability quota-based, retrospective sampling approach allowed respondents to reflect on their recent consumption experience with the brand's Weibo social media platform when responding to the survey.

The number of completed surveys is 782 of which 49% are male, ranging from 18 to 65 years in age (average 31 years). Respondents are in administration (51%) and technical (36%) occupations with the majority possessing a college degree (81%). As our study is focussed on a selected customer group rather than a selected brand, a total of 134 brands were nominated by respondents including (frequencies in parentheses), Apple (187), Adidas (43), Huawei (27), Lenovo (32), Nike (137), Samsung (32) and Xiaomi (79).

To measure the focal constructs of this study, the measurement approach uses adapted multi-item scales with items employed previously in extant literature. Modifications of all items ensured fit with the social media context. To ensure model parsimony, three reflective items each serve to measure the four CE dimensions outlined in Appendix A. Items to measure focused attention, absorption and enthusiasm were drawn from So *et al.* (2014), and interaction drawn

from de Vries and Carlson (2014). For the cognitive structure constructs, three items were adapted from Ganesh *et al.* (2010) to assess avant-gardism and three items from Algesheimer *et al.* (2005) for brand knowledge. Finally, three items that measure sharing intentions lean on Labrecque (2014) in order to assess the customer's propensity to provide feedback to the brand in the future via the Weibo social media platform.

Since respondents are Chinese, the back translation method following protocols by Liu *et al.* (2016) served to ensure translation validity. First, a researcher whose native language is Chinese translated the items into simplified Chinese from English. Next, another language specialist independently translated these items back into English to ensure semantic and cultural equivalence. Subsequently, the two researchers compared the two English versions and developed the simplified Chinese version of the items together. Four researchers then reviewed the instrument to ensure absence of ambiguity in wording. A seven-point Likert scale with 1 ='strongly disagree' and 7 = 'strongly agree' serves to measure all items.

Data Analysis Approach

To empirically assess the two propositions, the present study applies a multi-method approach by drawing on partial least squares structural equation modeling (PLS-SEM) using the software package SmartPLS 3.2 (Ringle *et al.*, 2015) and fuzzy-set qualitative comparative analysis (fsQCA) (Fiss, 2011) using the software package fs/QCA 3.0 (Ragin and Davey, 2016). Figure 2 illustrates this approach.

Insert Figure 2 here

In a first step, PLS-SEM is employed to assess whether the four CE dimensions are associated with sharing intentions. PLS-SEM is advantageous when the goal is to further advance theoretical arguments and when the focus of analysis concerns prediction (Hair *et al.*, 2017a); both of these aspects characterize this study. Additional analyses combine FIMIX-PLS, as the second step, with fsQCA as the third step. FIMIX-PLS serves to empirically examine whether the impact of certain CE dimensions is heterogeneous. It allows the simultaneous estimation of structural and measurement models, while also assessing whether unobserved heterogeneity characterizes the sample data (Hair *et al.*, 2017b); hence the use of PLS-SEM, in general, and of FIMIX-PLS, in particular. Establishing the degree of heterogeneity of impact is a prerequisite for exploring whether customers' cognitive structure possibly causes the emergence of different configurations of CE dimensions (i.e. analyzing for the presence of equifinality). In doing so, the authors follow prior literature (Gelhard *et al.*, 2016) by referring to fsQCA as a subsequent analysis tool that serves to assess both the presence and nature of configurations of CE dimensions and their equifinality.

While PLS-SEM assumes that low values of a dependent variable (or complex sets of dependent variables) relate to low values of the independent variable, and high values of a dependent variable relate to high values of the independent variable, fsQCA considers that high values of a dependent variable might be sufficient for high values of the independent variable but not necessary (Woodside, 2013). In this sense, fsQCA is considered as a complementary analysis procedure to PLS-SEM, since fsQCA examines how variables combine into configurations to explain the outcome instead of considering the isolated net influence of each variable on the outcome (e.g. Tóth *et al.*, 2015; Woodside, 2013). Thus, in contrast to structural equation modeling, fsQCA does not imply a correlational understanding of causality within its statistical

foundation and it explores how variables combine in configurations that explain the outcome of interest—here, sharing intentions (e.g. Woodside, 2013).

While a moderated PLS-SEM analysis (i.e., the inclusion of an interaction term) would allow testing whether one independent variable in isolation from others is contingent on a specific type of cognitive structure property (brand knowledge or avant guardism), fsQCA allows the analysis of whether a set of conditions, including various independent variables, is contingent on a combination of cognitive structure properties in the pursuit of a high level of sharing intentions. Hence, the use of fsQCA in the present study allows description of the conditional and interdependent nature of different CE dimensions, in consideration of brand knowledge and avant-gardism, in achieving high levels of sharing intentions. In doing so, this procedure supplements the PLS-SEM analysis performed in the first step of our multi-method approach.

Analysis and Results

Evaluation of measurement scales

The evaluation of the measurement models follows established guidelines (e.g. Hair *et al.*, 2014) and refers to the individual item reliability, internal consistency, convergent validity, and discriminant validity. Individual item reliability is measured by means of the (standardized) outer loadings. All items' (standardized) outer loadings exceed .70 and hence indicate adequate item reliability. Internal consistency of the measurement scales is assessed by Cronbach's alpha values, which all exceed the .70 threshold for adequate consistency (see Table 1). Since Cronbach's alpha values have limited applicability for PLS-SEM, scholars recommend also assessing internal consistency by means of composite reliability (CR) (Hair *et al.*, 2014). Since

all composite reliability values exceed the recommended threshold of .70, the authors infer adequate internal consistency of all measurement scales applied in this study. Furthermore, the authors evaluate convergent validity and refer to the average variance extracted (AVE). As shown in Table 1, all AVE values exceed the recommended threshold of .50 and thus support the presence of adequate convergent validity.

The authors assess discriminant validity on the construct level by means of the Fornell-Larcker criterion of correlations. Since the square root of each construct's AVE exceeds the correlation with any other measurement construct (see Table 1), the measurement model shows adequate discriminant validity. Furthermore, discriminant validity is assessed on the item level. Results confirmed that each item loading with the associated construct exceeded any loading with any other construct. Finally, a common method variance (CMV) test was conducted given our data were self-reported in one-time period. We ran Harman's single-factor test by entering the study variables into a principal-component factor analysis. The results demonstrated that no single factor contributed to the majority of the variance (>50%) and, therefore, CMV did not pose a serious threat and that the quality of our data is suitable for our empirical study.

Table 1 here

Evaluation of the structural model

To estimate the path coefficients, the authors refer to the path method (Hair *et al.*, 2017a). The corresponding standard errors derive from a bootstrapping procedure with replacement (500 resamples). Figure 3 and Table 2 entail the results of the PLS-SEM analysis.

Figure 3 and Table 2 here

Explanatory power, model fit, and prediction validity

Explanatory power is assessed by means of explained variance (R^2). Figure 3 shows the R^2 value of 0.55 for sharing intentions, which implies good explanatory power. To evaluate the overall model fit of the proposed research model, the authors further refer to the standardized root mean square residual (SRMR). The SRMR value of 0.05 is below the suggested threshold of 0.08 (Hu and Bentler, 1999) and, thus, implies good model fit (Henseler *et al.*, 2015). Since an adequate model fit does not automatically imply adequate prediction validity, the authors further evaluate prediction validity. Since the Stone-Geisser Q^2 value for sharing intentions is greater than zero, the endogenous construct shows adequate prediction validity (Henseler *et al.*, 2009).

FIMIX-PLS and unobserved heterogeneity

To account for unobserved heterogeneity—that is to test whether customers differ in how their CE dimensions affect sharing intentions—this study applies FIMIX-PLS (Sarstedt and Ringle, 2010). The FIMIX-PLS algorithm is carried out 10 times each for different numbers of segments (g = 2 - 6) (Sarstedt *et al.*, 2016). To identify the appropriate number of segments, the estimates of different segment solutions are assessed using the Akaike information criterion (AIC), modified AIC₃, Bayesian information criterion, heuristic-consistent AIC, and normed entropy statistic (Sarstedt *et al.*, 2016). Table 3 shows these criteria's values and the segment sizes for the competing numbers of segments. Consideration of these criteria suggests the six-segment or the

three-segment solution as the most adequate solutions. In consideration of the six-segment solution, because of the small size of four segments, further analyses would focus on the two large segments. With regard to the three-segment solutions, further analysis would then focus on the two larger segments only. Accordingly, consideration of two segments likely captures the heterogeneity that characterizes the data analyzed in this study. Thus, and irrespective of some ambiguity about the most suitable segment solution, FIMIX-PLS analysis establishes that heterogeneity is present in the current study and that equifinality could possibly characterize various configurations of CE dimensions. This being the case, assuming homogeneity, as is done in the standard PLS-SEM analysis, would yield misleading conclusions.

Table 3 here

Qualitative comparative analysis

Because heterogeneity typifies the effects of CE dimensions on sharing intentions, as applied in prior related studies (Gunawan and Huarng, 2015), fsQCA serves to evaluate whether different configurations possibly explain this heterogeneity (Fiss, 2011). As a set-theoretic method, fsQCA considers the possibility that different sets of causal factors can achieve the same outcome (Ragin, 2000). Thus, rather than examining the influencing effect of each individual precursor of the outcome of interest (here, sharing intentions), fsQCA considers configurations of factors—rather than the individual factors themselves—as causal conditions of the outcome

(Munoz and Dimov, 2015). Put differently, fsQCA allows the analysis of how causal conditions jointly are linked to the outcome of interest (Fiss, 2011)¹.

Calibration

In fsQCA, the relationship between multiple conditions can be understood by following the idea of set memberships: that is, each case belongs to a configuration to some degree and exhibits varying degrees of membership across various configurations (Fiss, 2011). Consistent with the idea of set memberships, all measurement variables have to be calibrated into fuzzy sets, ranging from 0 (full non-membership) to 1 (full membership), with a cross-over point of .50 (maximal ambiguity) (Fiss, 2011; Woodside, 2013). For the performance of the fsQCA, including the initial step of calibrating all measurement variables into fuzzy sets, this study draws on the software package fs/QCA 3.0, which relies on Boolean algebra to determine which combinations of conditions result in the outcome of interest (Fiss, 2007; 2011).

The first analysis step within fs/QCA 3.0 refers to the transformation of the raw data into fuzzy set values. As input for the software package, this study refers to the unstandardized latent variables scores taken from the preceding SEM-PLS analysis with all measurement variables measured using a seven-point Likert scale. To transform these conventional variables into fuzzy sets, the authors apply the following anchor points: 6.5 for full membership, 2.5 for full non-membership, and 4.5 as the indifference point. While the anchors for full and full non-

¹ FsQCA basically accounts for three premises: conjunction, equifinality, and asymmetry (Fiss, 2011). Conjunction means that attributes may not impact the outcome in isolation from each other but the interdependencies of attributes cause an outcome. FsQCA further stresses equifinality, which implies that alternative attribute configurations can cause the same outcome. Finally, fsQCA allows testing for asymmetry—that is, the causes of the presence of an outcome might differ from the causes of its absence.

membership represent two extremes of varying degrees of membership, the indifference point reflects the point of maximum ambiguity (Plewa *et al.*, 2016; Tóth *et al.*, 2015).

In addition to the four CE dimensions that were included in the PLS-SEM analysis to assess Proposition 1, brand knowledge and avant-gardism constructs are part of the fsQCA. To derive unstandardized latent variables scores as input for fsQCA 3.0 and evaluate the adequacy of the measurement scale, brand knowledge and avant-gardism were subsequently, as an intermediate step, included in the model estimation using PLS-SEM. In order to ensure that the measurement demonstrated adequate reliability, items with loadings lower than the recommended threshold of .70 were discarded.

Analysis of necessary conditions

The analysis for necessary and sufficient conditions draws on the formal tests for necessity and sufficiency of conditions offered by fsQCA. While a necessary condition must be present to cause the outcome, a sufficient condition can produce a certain outcome by itself (Ragin, 1987). With regard to necessary conditions, one can always observe the presence of the necessary condition when one sees the outcome. With regard to sufficient conditions, one can see the outcome without observing the presence of the sufficient condition. However, the presence of the sufficient condition might always lead to the presence of the outcome (e.g. Schneider and Wagemann, 2006). A condition is considered as necessary if its consistency exceeds the threshold of .90 (Tóth *et al.*, 2015). As shown in Table 4, the constructs of attention and enthusiasm exceed this threshold and, hence, suggest the presence of necessary conditions

Table 4 here

Analysis of sufficient conditions

The analysis of sufficient conditions explaining the presence of sharing intentions comprises the following three steps: the construction, redefinition, and analysis of the truth table. The truth table lists all logically possible causal combinations of conditions, consisting of 64 possible theoretical combinations (2^k , k = number of conditions). In a second step, the truth table is reduced to meaningful configurations, based on the frequency and consistency levels. Considering the large sample size of the present study (n = 782), the frequency level, that is, the minimum number of cases that is required to consider a solution as causing the outcome, is set at 25. In order to determine the threshold for the minimum acceptable level of consistency, the study refers to the truth table and identifies the point at which a clear drop in consistency occurs in the ordered consistency values from the truth table (Leischnig and Kasper-Brauer, 2015). The consistency level is set at .97. While solutions that exceed this consistency level are considered as being sufficient for causing the outcome of interest, solutions below this consistency level are considered as not sufficient (Tóth *et al.*, 2015).

Table 5 entails the results from the analysis of the complex, parsimonious, and standard solution terms.² In line with prior literature (Gunawan and Huarng, 2015; Plewa *et al.*, 2016; Tóth *et al.*, 2015), this study considers only solutions with a substantial unique raw coverage. The initial fsQCA calculations entail a minimum number of 10 cases per solution. This analysis

² fsQCA required selection of one of the following conditions as prime implicant: focused attention, absorption, enthusiasm, and interaction. As enthusiasm has the highest net effect on sharing intentions based on the PLS-SEM results, enthusiasm served as prime implicant.

implies three solutions of which, for one solution, the raw coverage is, however, rather small. Additional fsQCA assessment, therefore, is based on running a subsequent analysis with a minimum number of 25 cases per solution. This additional analysis implies two solutions. These findings are thus consistent with those from the FIMIX-PLS analysis. While the overall consistency level of the two solutions is .99, the overall solution coverage is .77. The overall solution coverage indicates the explanatory power of the two solutions. In the present case, 77% of the membership in the outcome is covered (explained) by the two configurations.

Furthermore, the consistency and coverage of each single configuration can be assessed. The consistency of a single configuration indicates the extent to which the configuration corresponds to the outcome (i.e. the extent to which cases with the same combination of conditions are members in the outcome) (Tóth *et al.*, 2015). The coverage of a single configuration splits up into raw coverage and unique coverage. While raw coverage refers to the portion of memberships in the outcome that is overlapped by certain configurations, unique coverage eliminates this overlap and indicates the portion of memberships in the outcome that is solely explained by one configuration (Munoz and Dimov, 2015; Tóth *et al.*, 2015). Raw coverage can be considered as analogous to explained variance (R²) in regression analysis (Plewa *et al.*, 2016). Solution 1, which reveals the presence of brand knowledge as a peripheral condition, entails a consistency level of .99, a raw coverage of .73, and a unique coverage of .03. Solution 2, which indicates the absence of brand knowledge as a peripheral condition, shows a consistency level of .99, a raw coverage of .74, and a unique coverage of .04. *********

Table 5 here

Discussion and Implications for Theory and Practice

This study clarifies, for the first time, current assumptions concerning the effect of heightened CE dimensions across multiple dimensions on sharing intentions with a brand page on social media. It provides support for Proposition 1 by demonstrating that different CE dimensions associate with sharing intentions on social media platforms. However, as put forward in Proposition 2, our findings show that different configurations of CE dimensions exist that should be considered as *gestalts* and that open different paths to strengthen sharing intentions with the brand. In further investigating this effect, the study advances the CE literature by substantiating that equifinality characterizes certain configurations of CE dimensions. Importantly, this study demonstrates that considering net-effects of CE dimensions only would be erroneous and that disregarding their interdependence can produce misleading conclusions.

In Table 5 above and illustrated in Figure 4 below, the results reveal two distinct configurations which yield high levels of sharing intentions. Solution 1 implies that a configuration that captures high brand knowledge and avant-gardism motives of the customer together with all CE dimensions, with the exception of absorption, corresponds to a high level of sharing intentions. Solution 2 reveals that a configuration that combines avant-gardism motives, in the absence of high brand knowledge, with all CE dimensions also relates to a high level of sharing intentions. In comparing the two solutions, the findings imply that high brand knowledge (as present in Solution 1 but absent in Solution 2) substitutes for the CE dimension of absorption

(as absent in Solution 1 but present in Solution 2). Interestingly, the CE dimension of enthusiasm is both a core and necessary condition with regard to both solutions, revealing its prevalent and indispensable role in achieving a high level of sharing intentions.

Insert Figure 4 here

In sum, the findings suggest that researchers should consider the effect of different configurations of CE dimensions, as gestalts, on sharing intentions within a brand's presence on social media platforms rather than the net-effects of CE dimensions only. Such consideration offers a more nuanced understanding about the impact of CE dimensions within a social media environment than studies that ignore such conditional and configurational impact. Disregarding the configurations of CE dimensions illustrated here would have produced misleading insights. For instance, insights that are based on analysis that assumes homogeneity amongst customers and independence of CE dimensions when assessing the effect on sharing intentions would be inaccurate³. Thus, CE theorizing concerning sharing intentions in social media should not be based on conventional net-effects thinking about CE dimensions but rather on the effects of CE configurations.

³ We examined the explanatory accuracy by assessing the r² values which increased from .56 for the model assuming homogeneity to .73 and .59, respectively, for the two models that have resulted from the two segment FIMIX-PLS solution. This increase suggest that assuming heterogeneity, rather than homogeneity, produces models for the two segment FIMIX-PLS solution that have greater explanatory accuracy compared to the overall model (Ratzmann, Gudergan and Bouncken 2016).

In addition, this study's findings provide a basis on which to understand the impact of CE dimensions as being conditional on certain customer characteristics. Specifically, this study is the first to examine whether a customer's cognitive structure properties may explain to what extent selected CE dimensions affect sharing intentions. The findings substantiate that the impact of CE dimensions, in the context studied here, are contingent on a customer's brand knowledge and avant-gardism. Hence, assuming that CE dimensions have the same impact on certain CEBs, such as sharing intentions, across customers with different characteristics is erroneous.

Commonly employed estimation techniques, however, lack the ability to identify and describe such nuanced understanding. As proposed and demonstrated in this paper, a combination of FIMIX-PLS analysis and fsQCA allows revealing whether unobserved heterogeneity exists and empirically assessing the impact of different configurations of CE dimensions on sharing intentions in an equifinality context. Since examining whether heterogeneity is a prerequisite for analyzing equifinality, CE researchers who seek to empirically assess the impact of certain configurations in an equifinality context should consider a priori use of methods that assist in examining whether unobserved heterogeneity characterizes the study context. This paper demonstrates that researchers should consider empirically whether unobserved heterogeneity characterizes their study (Ratzmann *et al.*, 2016; Sarstedt *et al.*, 2016) and whether conditional, configurational explanations may need to be explored in greater detail (e.g. Agic *et al.*, 2016).

From a managerial perspective, the study offers several implications for brand managers of social media platforms. Knowledge about specific configurational causes of favorable sharing behaviours in social media helps brand managers understand the underlying psychological conditions and the interdependencies between CE dimensions and motivations. This knowledge forms the basis for enhanced segmentation approaches, such as the development of the required scope of content marketing activities to induce CE dimensions and arouse specific motives that enhance sharing intentions based on critical configurations identified in the study. For instance, Solution 1 captures high brand knowledge and avant-gardism motives of the customers with all CE dimensions, with the exception of absorption, relating to a high level of sharing intentions. Whereas, Solution 2 combines avant-gardism motives, in the absence of high brand knowledge, with all CE dimensions, relating to a high level of sharing intentions. Notably, the CE dimension of enthusiasm for the social media brand page is a necessary and core condition that is present in both solutions and thus remains an important psychological process to induce sharing behaviors with the brand. Accordingly, practitioners are advised to place emphasis on the development of brand-related content that induces high levels of enthusiasm to these group of consumers.

Then, in specific reference to Solution 2, the CE dimension of absorption matters under conditions of consumers which possess high avant-gardism only where such customers may be seeking to satisfy both utilitarian and hedonic needs owing to lack of brand knowledge and the motive to acquire brand-related information (which is intrinsically enjoyable) to construct their consumer self-concept (i.e. that they are an avant gardist). As a consequence of spending more time (a critical element for absorption to occur) in browsing and reading the content of the brand's social media platform to satisfy such needs, high avant-gardism customers, in the absence of high brand knowledge, have a higher propensity to experience absorption as they are not as knowledgeable about the brand. As such, brand managers of social media platforms need not be concerned with designing content initiatives that induces absorptive experiences for customers high in avant-gardism *and* brand knowledge. This is because they already possess significant knowledge about the brand and do not need longer duration of social media usage to

acquire such information. However, high avant-gardism only customers are more susceptible to absorptive experiences as they seek to spend more time increasing their learning about the brand, new trends and developments enabling absorptive experiences to occur.

With these collective insights, brand managers who are considering the segment of consumers that possess high avant-gard and brand knowledge characteristics can allocate resources to design and optimize content strategies which heighten the CE dimensions that are sufficient for strengthening sharing intentions with the brand. As a result, brand managers can expect customers to actively participate in contributing feedback, ideas and suggestions on social media, which can be captured for greater understanding of customer preferences of new and existing offerings (Carlson *et al.*, 2018; Hollebeek *et al.*, 2017). This information can then be used by brand managers to better understand their customers and engage with them accordingly, thereby enhancing firm performance indirectly (Pansari and Kumar, 2016).

Limitations and Future Research

The findings presented in this paper should be viewed as a first step in understanding configurations of CE dimensions. The extent to which the findings can be generalized to explain sharing intentions with the brand through the use of social media should be viewed in the light of the study's limitations.

First, the paper proposed that 1) CE dimensions (focused attention, enthusiasm, absorption and interaction) positively relate to sharing intentions, and that 2) equifinality characterizes certain CE configurations conditional on customers' brand knowledge and avantgardism. The study context has relied for its empirical assessment of these two propositions in this paper on retrospective assessments by Chinese customers of consumer brands and their respective brand pages in the Weibo social media platform. As such, the generalizability of the findings beyond this context of consumer brands should be interpreted with some degree of caution. Given that the Weibo social media platform is located in China, future studies could explore the generalizability of the findings in other country contexts, such as through the popular platforms Facebook and Youtube in the U.S. and more utilitarian-oriented platforms such as LinkedIn.

Second, future work can focus on understanding whether sharing varies when using sedentarian (laptop/desktop) compared to handheld mobile devices (smartphone/tablets/watches) since the context and ease-of-use may facilitate intentions to share. Third, the sample of this study comprises consumption experiences measured at a single point in time (i.e. cross-sectional) from many different brand categories on the Weibo social media platform. However, no analysis of specific brand categories was conducted in this study to gather further insights. Consequently, further investigation in larger studies of brand categories, such as fashion, tourism, professional services, airlines and other industries, could be undertaken in order to determine industry- and context-specific insights in this area. Furthermore, given the dynamic and possible temporal nature of CE dimensions, longitudinal research could be employed to further explore the development of CE with brand interactions over time.

Fourth, future research can extend the research model by including additional factors that might represent CE responses (including negative CE perceptions) in social media as well as additional CEBs as outcomes, such as the sharing of brand experiences with others in the brand community as well as with others in their social network (cf. Carlson *et al.*, 2018). Furthermore, studies can examine the configurations of CE dimensions that lead to additional types of CEBs conceptualized by Jaakkola and Alexander (2014), including influencing behavior, augmenting behavior and mobilizing behavior. Research could further monitor configurations of CE dimensions on these CEBs' that are linked to customer transaction data to capture a more holistic view of the total value of the customer to the firm, and their impact on firm profitability. Finally, this study encourages future research concerning CE dimensions to move beyond a consideration of net-effects only and a reliance on a single method and, rather, rely on mixed-method approaches (e.g., PLS-SEM/fsQCA).

Concluding Remarks

In sum, the growing importance of harnessing social media technology to enable engaged customers to share experiences with brands in today's socially networked environment has created significant interest in the marketing community. Although effort has been devoted to understanding CE over the past five years, this study has significantly advanced this understanding by demonstrating the need to consider the configurational effect of four CE dimensions—focused attention, absorption, enthusiasm and interaction—together with two key cognitive structure properties, including a customer's level of brand knowledge and avantgardism, on sharing intentions with the brand in social media; rather than considering net-effects only. The findings in this context further reveal that not all of the CE dimensions necessarily matter equally and that different configurations of them can produce superior sharing intentions, conditional on the two cognitive structure properties.

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Figure 1 Conceptual Framework of Configurational Customer Engagement

Note: This illustration implies the possibility of interactions amongst <u>all</u> CE dimensions and also the two cognitive structure properties.

Figure 2 Data Analysis Approach





Figure 3 Results of Structural Equation Modeling with PLS

NB: *Significant > 1.96; ^ Not significant < 1.65

Figure 4 Empirical CE Configurations

Solution 1

- High brand knowledge High avant gardism ٠
- •



Solution 2

· High avant gardism



	CR	AVE	1	2	3	4	5
1. Absorption	0.83	0.70	0.83				
2. Focused attention	0.85	0.66	0.70	0.81			
3. Enthusiasm	0.87	0.69	0.70	0.74	0.83		
4. Interaction	0.89	0.73	0.68	0.68	0.68	0.85	
5. Sharing intention	0.82	0.60	0.61	0.64	0.70	0.64	0.78

Table 1. Latent variable correlations, AVEs, and CRs

		path	critical ratio
Proposition 1	Enthusiasm – Sharing intention	0.38	7.66*
Proposition 1	Focused attention - Sharing intention	0.18	3.64*
Proposition 1	Absorption - Sharing intention	0.05	1.12^
Proposition 1	Interaction - Sharing intention	0.23	4.55*

Table 2. Results of structural equation modeling with PLS

NB: *Significant > 1.96; ^ Not significant < 1.65

Table 3. FIMIX-PLS

S	consistent AIC	modified AIC	entropy statistic (EN)	relative segment size					
				g = 1	g = 2	g = 3	g = 4	g = 5	g = 6
2	1,624.930	1,573.652	0.16	0.62	0.38				
3	1,592.989	1,513.737	0.47	0.60	0.01	0.39			
4	1,428.676	1,321.453	0.31	0.34	0.32	0.01	0.34		
5	1,452.992	1,317.798	0.39	0.32	0.30	0.35	0.03	0.01	
6	1,476.094	1,312.929	0.62	0.42	0.49	0.01	0.01	0.05	0.02

Condition	Consistency	Coverage
Absorption	0.83	0.96
~absorption	0.33	0.87
Focused attention	0.91	0.95
~focused attention	0.25	0.88
Avant gardism	0.86	0.95
~avant gardism	0.30	0.89
Brand knowledge	0.84	0.94
~ brand knowledge	0.32	0.90
Enthusiasm	0.92	0.95
~enthusiasm	0.24	0.87
Interaction	0.89	0.96
~interaction	0.28	0.86

 Table 4. Overview necessary conditions (Sharing intentions)

Note: ~ indicates the absence of a condition.

Minimum number cases per so Minimum level of consistency	lution: 2 : 0.99	5	
Configurations for achieving h	igh shari	ng	
	Solution		
	1	2	
Brand knowledge	•		
Avant gardism	•	•	
Enthusiasm	●		
Focused attention	•	•	
Absorption		•	
Interaction	•	•	
Consistency	0.99	0.99	
Raw coverage	0.73	0.74	
Unique coverage	0.03	0.04	
Overall solution consistency	0.99		
Overall solution coverage	0.77		
• = core condition present, \bigotimes = core condition absent,			

 \bullet = peripheral condition present,

 \bigotimes = peripheral condition absent, blank spaces = "don't care"