Driving marketing outcomes through social media-based customer engagement

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ABSTRACT

Firms recognize the increasing potential of digital services to enhance customer engagement behaviors. Drawing on customer engagement and user gratification theory, two studies were conducted among Chinese consumers: an online survey and a field study. The results reveal varying effects of content types on customer engagement and underline a mediating role of engagement between content types and marketing outcomes. It is worth noting that the relational content type displays greater mediating effects compared to other content types. The findings provide new insights for development of digital content marketing strategies to enhance customer engagement and thereby generate marketing outcomes.

1. Introduction

The widespread customer adoption of digital innovations has changed the nature of customer/firm interactions (i.e., Horakova et al., 2022). In 2022, over 4.5 billion people were using social media world-wide, and the number is projected to increase to nearly 6 billion in 2027 (Statista, 2022a). In contrast to social media platforms in Western countries that lean towards application (app) constellations, the widely used social media app in China, WeChat, represents an app ecosystem of "apps-within-an-app" (Chan, 2015). WeChat reached over 1.31 billion monthly active users in the third quarter of 2022 (Statista, 2022b) connecting its users, digital content, and a wide variety of services from ordering food, booking a table at restaurants to finding geo-targeted coupons (OECD, 2019). Due to growing social media penetration in customers' lifestyle, China represents an appropriate contextual setting to study.

Firms are boosting their investments in digital services and digital marketing activities to create and deliver value for customers through these efforts (Dolega et al., 2021; Nöjd et al., 2020; Rahman et al., 2023). Customers in return generate value for firms directly through their purchase and indirectly through multiple forms of customer engagement (CE) (Islam et al., 2019; Kumar and Reinartz, 2016). CE in marketing refers to the interaction between a customer as an engagement subject and a focal engagement object, including a firm/brand or firm/brand-related content (Hollebeek et al., 2014; Hollebeek and Macky, 2019). Scholars define CE as a customer's cognitive and emotional absorption resulting from specific interactions with a firm or brand (e.g., Brodie et al., 2011) and manifesting in customer behaviors that have the brand or service focus (e.g., Algharabat et al., 2020; Islam et al., 2019). Moreover, in the social media context, CE is expected to foster the impact of firms' marketing activities on marketing outcomes, e.g., word-of-mouth (WOM) and customer loyalty (Santini et al., 2020; Wang and Lee, 2020).

Marketing practitioners and scholars have therefore begun to explore the CE concept in the social media context (Brodie et al., 2011, 2013) and its role as a mediator for marketing outcomes (Santini et al., 2020). However, the marketing literature provides inconsistent (positive, negative, or insignificant) findings regarding the relationship between content-related antecedents (e.g., distinct content types) and CE behaviors (e.g., distinct social media-based CE behaviors). The theoretical foundation is relatively underdeveloped and measurement of engagement largely varies (Santini et al., 2020). Also, CE research has mainly been conducted in Western countries rather than in Eastern countries, e. g., China (Huang et al., 2022; Islam and Rahman, 2016).

Relatedly, this research makes the following contribution to the marketing and customer engagement literature. First, we respond to the research call for investigation of how social media marketing content stimulates social media-based CE (Gavilanes et al., 2018), and in turn

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generates marketing outcomes. Some social media marketing efforts will fail, unless firms understand how to effectively create digital marketing strategies to facilitate CE (Lee et al., 2014) and subsequently achieve marketing outcomes (Lal et al., 2020). Potential consequences of having highly engaged customers include improved customer satisfaction, advocacy, and loyalty (Brodie et al., 2013; van Doorn et al., 2010). Yet, more research on the consequences of CE in the social media context is needed (Beckers et al., 2018; Gavilanes et al., 2018; Lal et al., 2020). We extend the prior research of Cvijikj and Michahelles (2013), De Vries and Carlson (2014), first, by adding two consequence variables (e.g., WOM, customer loyalty) and examining not only the direct but also mediating effects of CE between its antecedents (e.g., content types) and consequences and, second, by complementing consumer self-reported data from a survey study with behavioral data from a field study.

Second, the present research captures valence of engagement by focusing on positively and negatively engagement behaviors that may influence marketing outcomes. This research therefore responds to the recent call to explore the negative side of engagement (Obilo et al., 2020).

Third, our study offers valuable insights into the impact of digital marketing strategies and customer engagement (CE) behavior on social media in the Chinese market. Given the high level of social media penetration in China, coupled with its integration into customers' daily lives, this context provides a suitable setting for our investigation. Notably, unlike social media platforms in Western countries that tend to mainly consist of app constellations, WeChat – the most widely used social media app in China – represents an app ecosystem that allows firms to create official accounts within the platform. As such, many product and service firms, including retailers and restaurants, leverage WeChat to enhance brand awareness and engage with customers through their accounts. However, firms recognize the importance of obtaining a better understanding of the effective utilization of social media to drive customer engagement and improve overall customer experiences (DiPietro et al., 2012; Huang et al., 2022).

Fourth, research on social media in the service sector predominantly focused on social media use by hotel and tourism firms (i.e., Abbasi et al., 2023; Chan and Guillet, 2011) while less research has been done on social media use for marketing in restaurants (i.e., DiPietro et al., 2012; Nilashi et al., 2021). Therefore, the studies investigating CE in the restaurant setting are scarce (Odoom et al., 2017). This research focuses on development of social media marketing to facilitate CE and greater WOM and customer loyalty towards a restaurant.

The paper is structured as follows. First, we present the theoretical background and the conceptual framework of CE. Second, we describe the methodology for the empirical analyses. Third, we present results. Finally, we discuss the results and implications of our findings. We conclude with limitations and future research directions.

2. Theoretical background

Previous research has demonstrated the importance of firm's social media content in fostering CE. Table 1 provides an overview of relevant research in the context of interaction between different social media content types, forms of CE, and marketing outcomes, however empirical studies are sparse on the mediating role of CE between content-related antecedents and consequences (see Table 1). This research builds on the uses and gratifications theory (UGT) and theory of CE marketing to examine how customers engage with firm's social media content and how their engagement generates marketing outcomes.

2.1. Uses and gratifications theory (UGT) and its application to social media content

UGT provides a theoretical framework to explain why and how individuals deliberately use media to satisfy their needs (Katz et al., 1973). UGT offers a user-centered view to reveal social and psychological needs

that create individuals' expectations from media and eventually lead to different patterns of media use, which then result in gratification of needs (Katz et al., 1973). A growing stream of research has employed UGT into the social media context, attempting to explain individuals' psychological motives and perceived values for using social media (Muntinga et al., 2011; Rohm et al., 2013). With regards to firm's communication and service strategy, the delivery of varying content types and services is expected to gratify customer needs or deliver their perceived values, and thus stimulate CE on social media (Khan, 2017). Based on prior research (Cvijikj and Michahelles, 2013; Gavilanes et al., 2018; Tafesse, 2015), we identify three content types: *infotainment content, remunerative content,* and *relational content.*

First, *infotainment content* refers to content that "delivers information and/or entertains users with new, factual, useful, educational, and/or interesting information." (Gavilanes et al., 2018, p. 7). For example, marketers can design a social media post with informational content elements e.g., text, in order to inform customers about the products and their performance. Marketers can also include entertaining elements e. g., videos, photos, audio sounds, to augment the content of the brand campaigns in order to catch customers attention, create brand associations and offer nonmonetary gratification of escapism, and enjoyment. Yet, there seems to be a lack of consensus in prior studies regarding whether to identify informational content and entertaining content as two separate constructs (Cvijikj and Michahelles, 2013; Meire et al., 2019) or merge them into a single construct, namely *infotainment content* (Gavilanes et al., 2018). We propose *infotainment content* (see Gavilanes et al., 2018) due to potential overlap between content informativeness and entertainment and entertaining properties embedded in the content being perceived as informational and vice versa. This content type is an important motive for customers to adopt a social media platform (Khan, 2017).

Second, *remunerative content* refers to "the extent to which the social media content provides monetary or incentive rewards" (Dolan et al., 2019, p. 2218). For example, marketers can design social media post with monetary elements, e.g., discounts or vouchers that can be claimed at the point of purchase. The provision of monetary incentives offered by the firm, such as sales promotions and discounts, appear among the reasons for consumer-firm interaction on social media (Cvijikj and Michahelles, 2013; Rohm et al., 2013).

Third, *relational content* refers to "the extent to which the social media content meets the consumer's need for integration and social interaction and desire for social benefits" (Dolan et al., 2019, p. 2218). Marketers can incorporate a structured task to customers requesting to refer a friend, create a video, design a new product idea. For example, "#PlayWithPringles" campaign asked customers to produce and upload creative video content on TikTok about their Pringles product experience. Customers could interact with others, like, share, and comment on the videos. This has enabled Pringles to reach customers in their homes and elevate digital socializing (Blut et al., 2023). Firms ought to support as much interactivity as possible through exclusive content, call-to-action with the relational focus to trigger customer-to-content, customer-to-firm as well as customer-to-customer interaction (Carlson et al., 2018; Demmers et al., 2020; Harmeling et al., 2017).

2.2. Customer engagement

Customer engagement (CE) has evolved as an important concept in the marketing literature, particularly due to the rise of social media that enables interaction with a firm and other customers. CE's conceptual roots predominantly reside in the relationship marketing and service-dominant logic literature (e.g., Lusch et al., 2016) that highlights the interactive nature of the concept. CE refers to the interaction between a customer as an engagement subject and a focal engagement object such as a firm/brand or firm/brand-related content (Hollebeek et al., 2014; Hollebeek and Macky, 2019) This research examines CE with firm's social media content as an engagement object. Concerning

Table 1
Relevant customer engagement literature.

Article	Type of Research	Context	Theoretical perspective	Social Media Content	Positive Engagement	Negative Engagement	Marketing Outcomes
Current study	Empirical Quantitative	WeChat, Service industry, restaurants	UGT, relational marketing, CE theory	Infotainment content Remunerative content Relational content	Positive contribution (Likes, Shares, Comments), Co-creation	Negative contribution (Likes, Shares, Comments), Dormancy, Disengagement	WOM, Customer loyalty
Demmers et al. (2020)	Empirical Qualitative (netnography)	Facebook Multiple event pages	UGT	Informational content-oriented (information value) Entertaining content-oriented (entertaining value) Relational content-oriented (activation)	Positive contribution (Likes, Shares, Comments)		
Athwal et al. (2019)	Empirical, Qualitative (online observations and interviews)	Facebook, Instagram and Twitter, Luxury fashion brands	UGT	Informational content-oriented (cognitive needs) Entertaining content-oriented (affective needs)	Positive contribution		
Dolan et al. (2019)	Empirical, Qualitative (netnography)	Facebook, Wine brand page	UGT	Informational content Remunerative content Entertaining content Relational content	Positive contribution (Likes, Shares, Comments) Consumption		
Meire et al. (2019)	Empirical, Quantitative (online experiment)	Facebook, Soccer team's fan page	/	Informational content Entertaining content	Positive contribution (positive comments)	Negative contribution (negative comments)	Purchase
Carlson et al. (2018)	Empirical, Quantitative (survey)	Facebook, Multiple brand pages	Stimulus–organism–response, (S–O-R) model	Informational content-oriented (brand learning value) Entertaining content-oriented (hedonic value) Relational content-oriented (sociability, interactivity, entitativity value)	Co-creation (feedback intention), Positive contribution (collaboration intention)		
Gavilanes et al. (2018)	Empirical, Quantitative	Facebook	/	Infotainment Sales New product announcement Current product display Sweepstakes and contests Customer feedback Organization branding	Positive contribution (Likes, Shares, Comments), Consumption (Clicks)	Negative contribution (Hide, Close, Unlike)	
Gan (2017)	Empirical, Quantitative (survey)	WeChat	UGT	Informational content-oriented (information seeking) Entertaining content-oriented (enjoyment) Relational content-oriented (social support)	Positive contribution (liking behavior)		
Khan (2017)	Empirical, Quantitative (survey)	YouTube	UGT	Informational content-oriented (information seeking motive,	Co-creation (uploads), Positive contribution (Likes, Shares,	Negative contribution (dislikes)	

Table 1 (*continued*)

Article	Type of Research	Context	Theoretical perspective	Social Media Content	Positive Engagement	Negative Engagement	Marketing Outcomes
Relational content-oriented (social interaction motive)				information giving motive) Entertaining content-oriented (relaxing entertainment motive)	Comments), Consumption (views, reads)		
Tafesse (2015)	Empirical, Qualitative (netnography) Quantitative (statistical analysis)	Facebook, Multiple brand pages	UGT	Informational content Entertaining content Remunerative content (transactional content) Relational content-oriented (interactivity)	Positive contribution (Likes, Shares)		
de Vries and Carlson (2014)	Empirical, Quantitative (survey)	Facebook, Multiple brand pages	UGT, Involvement And self-brand congruency theory	Informational content-oriented (functional value) Entertaining content-oriented (hedonic value) Relational content-oriented (social value, co-creation value)	Positive contribution (Likes, Shares, Comments)		Brand loyalty
Cvijikj and Michahelles (2013)	Empirical, Qualitative (netnography)	Facebook, Multiple brand pages	UGT	Informational content Entertaining content Remunerative content Relational (interactivity)	Positive contribution (Likes, Shares, Comments)		
Rohm et al. (2013)	Empirical, Qualitative (social media diary), Quantitative (latent class analysis)	Facebook and Twitter, Multiple brand pages	UGT	Informational content-oriented (motivation for product information) Entertaining content-oriented (motivation for entertainment) Relational content-oriented (motivation for identification with or connection to the brand) Remunerative (motivation for incentives and promotions)	Positive contribution		
de Vries et al. (2012)	Empirical, Quantitative (survey)	Facebook, Multiple brand pages	/	Informational content Entertaining content Relational (interactivity and valence)	Positive contribution (Likes, Comments)	Negative contribution (share of negative comments)	
Gummerus et al. (2012)	Empirical, Quantitative (survey)	Facebook, Gaming brand community	/	Entertaining content-oriented (entertainment benefits) Remunerative content-oriented (economic benefits) Relational content-oriented (social benefits)	Positive contribution (Likes, Comments, playing/spending behaviors, Consumption (reads)		Satisfaction, Loyalty

Table 1 (*continued*)

Article	Type of Research	Context	Theoretical perspective	Social Media Content	Positive Engagement	Negative Engagement	Marketing Outcomes
Jahn and Kunz (2012)	Empirical, Qualitative (netnography, focus groups) and quantitative (survey)	Facebook Multiple brand pages	UGT	Informational content-oriented (functional value Entertaining content-oriented (hedonic value) Relational content-oriented (social interaction value, brand interaction value)	Positive contribution (fan-page engagement), Consumption (fan-page usage intensity)		Brand loyalty (brand commitment, WOM behavior, purchase intention)
Muntinga et al. (2011)	Empirical, Qualitative (interviews)	Facebook, YouTube and Twitter	UGT	Informational content-oriented (motivation for information) Entertaining content-oriented (motivation for entertainment) Remunerative content-oriented (motivation for remuneration Relational content-oriented (motivation for integration and social interaction)	Co-creation, Positive contribution Consumption		

dimensionality of the CE construct, extant research lacks clarity. One research stream uses a behavioral perspective to study CE in terms of engagement behaviors (Pansari and Kumar, 2017). Another research stream considers a multi-dimensional perspective to study engagement integrating emotional, cognitive, and behavioral dimensions. Although the multidimensional perspective provides a broader conceptualization, in this research, we adopt a behavioral perspective of CE to exclusively study CE behaviors on social media. CE behaviors have been defined as "customers' behavioral manifestations that have a brand or firm focus, beyond purchase, resulting from motivational drivers" (van Doorn et al., 2010, p. 254). We recognize that behavioral manifestations can have different intensity levels (low, moderate, high) and valence (positive, negative) (Gavilanes et al., 2018). Many scholars have assessed CE using positively valenced measures (Hollebeek et al., 2014) that have low to high intensity levels, e.g., content consumption, contribution, and creation (Schivinski et al., 2016). Others have focused on content popularity using social media metrics, e.g., Likes, Comments and Shares (Swani and Labrecque, 2020).

In the social media context, scholars suggest that lower intensity levels reflect passive forms of engagement (consumption) while higher levels relate to active forms (creation) (Schivinski et al., 2016; Khan, 2017). Co-creation as a behavioral manifestation of engagement (Bijmolt et al., 2010) represents a high engagement level, for example, customers creating firm-related content or suggestions to improve a firm's products or services (Schivinski et al., 2016). Both positive and negative contribution reflect a moderate engagement level, for example, customers' contributing to firm-related content previously created by either the firm or another customer (Schivinski et al., 2016). Contribution can be measured by social media metrics, e.g., Likes, Shares and Comments (Demmers et al., 2020). Disengagement reflects temporary or permanent termination of an individual's interaction with an engagement object (Bowden et al., 2015). Dormancy reflects a temporarily inactive state of engagement (van Doorn et al., 2010; Brodie et al., 2011). However, the latter forms of engagement, i.e., disengagement and dormancy remain largely unexplored in the marketing literature to date (Bowden et al., 2015).

Based on the above rationale, in this research we anticipate obtaining a comprehensive understanding of the nature of social media-based CE by integrating five engagement forms, e.g., co-creation, positive contribution, negative contribution, dormancy and disengagements as well as examining how aforementioned content types can affect marketing outcomes through activation of these engagement forms.

2.3. Marketing outcomes: customer loyalty and word-of-mouth

Based on the relationship marketing literature, managing CE is argued to enhance the key relationship marketing outcomes: customer loyalty and WOM (Kumar et al., 2010; Kumar and Reinartz, 2016). Scholarly research has demonstrated that customer experience exerts a positive impact on CE, thereby resulting in heightened customer loyalty (Leckie et al., 2016; Roy et al., 2020). This highlights the potential of customer engagement as a powerful means to enhance customer loyalty, especially when complemented with a favorable customer experience. In the current literature, conceptualization of customer loyalty varies across studies. Some studies focus on attitudinal loyalty (Leckie et al., 2016) whereas others examine behavioral loyalty (Romaniuk and Nenycz-Thiel, 2013). Some scholars consider positive WOM as a component of loyalty (Zeithaml et al., 1996) whereas others argue for treating WOM and repurchase intentions as two discrete constructs (de Matos and Rossi, 2008). In this research, we operationalize customer loyalty as a separate construct from WOM and define it as a customer's positive attitude and behavior towards a firm/brand and it is manifested in a customer's tendency to repurchase a preferred firm/brand (Oliver, 1999). According to Hennig-Thurau et al. (2004), WOM in the online context is defined as "any positive or negative statement made by potential, actual, or former customers about a product or company, which is made available to a multitude of individuals" (p. 39). While WOM can be positive or negative, firms are interested in promoting positive WOM. Positive WOM might include making positive recommendations to others about a firm (Brown et al., 2005).

3. Hypotheses development

The hypothesis development draws on UGT (Katz et al., 1973) and CE marketing theory (Blut et al., 2023; Harmeling et al., 2017; Hollebeek et al., 2014). Based on the theoretical background, customers are expected to exhibit different engagement behaviors on social media because of motivational influences that tend to drive their behaviors (Khan, 2017). In line with UGT, different CE behaviors can result from customer interaction with different content types on social media (Cvijikj and Michahelles, 2013; Gavilanes et al., 2018; Muntinga et al., 2011); this in turn might influence their WOM and loyalty. Thus, the conceptual framework presented in this study consists of interrelationships between three content types (e.g., infotainment, remunerative, and relational content), five CE behaviors (e.g., positive CE: co-creation, positive contribution; negative CE: dormancy, negative contribution, and disengagement), and two marketing outcomes (e.g., WOM and customer loyalty) (see Fig. 1).

3.1. Infotainment content, customer engagement and marketing outcomes

Previous research shows that infotainment content type positively influences customer attitudes toward social media advertising and can be engaging because of information and entertainment gained (Rohm et al., 2013). Empirical studies, which employed the UGT framework, have found information and entertainment relate to passive engagement on social media, as customers passively consume content (e.g., read posts and comments) (Dolan et al., 2019; Jahn and Kunz, 2012; Khan, 2017). Customers consume content as a source of information for making well-informed buying decisions, getting new ideas or being entertained (Gummerus et al., 2012; Muntinga et al., 2011). Moreover, infotainment content can stimulate customer contributing behaviors through Likes, Comments, and Shares (Cvijikj and Michahelles, 2013; Dolan et al., 2019; Khan, 2017; Muntinga et al., 2011). However, studies show varying effects (positive or insignificant) regarding these engagement metrics (Cvijikj and Michahelles, 2013; Dolan et al., 2019; Khan, 2017). For instance, Khan (2017) found that customers with information seeking motives contribute to the content through likes and comments but not shares; on the other hand, customers with information giving motives contribute to the content through all three metrics. Despite limited research on consequences, customers might reinforce marketing outcomes through positively valenced engagement behaviors

(i.e., positive contribution), by liking, commenting, or sharing infotainment content with others (Agrawal and Mittal, 2022; Gummerus et al., 2012; Santini et al., 2020). Previous studies exhibit a positive effect of CE behaviors on social media and WOM activities (Chu et al., 2019). Moreover, scholars recognize CE as a predictor of customer loyalty, e.g., purchase intention, customer acquisition and use of the products or services (Jahn and Kunz, 2012; Zhang et al., 2022). Therefore, we propose:

H1. The positive relationship between the perception of infotainment content and marketing outcomes – (a) customer loyalty and (b) WOM – is mediated by positively valenced CE behaviors (i.e., positive contribution). Specifically, if the positive perception of infotainment content increases the frequency of positively valenced CE behaviors, this in consequence will positively influence marketing outcomes.

Only a few marketing studies have focused on negatively valenced CE activities (Juric et al., 2015; Marbach et al., 2019; Obilo et al., 2020). Behavioral manifestations of negative CE are argued to generate unfavorable marketing outcomes, e.g., negative WOM (Marbach et al., 2019). However, firms have the potential to shape customer perceptions through marketing information (Bowden et al., 2015) and minimize detrimental effects of negative CE on marketing outcomes (Marbach et al., 2019). Customers tend to use firm-related content to positively enhance their perceptions of the firm (Bowden et al., 2015). With regards to negatively valenced behavioral manifestations of CE on social media, we expect that the positive perception of infotainment content will decrease negatively valenced CE activities and subsequently lead to positive marketing outcomes. Therefore, we propose:

H2. The positive relationship between the perception of infotainment content and marketing outcomes – (a) customer loyalty and (b) WOM – is mediated by negatively valenced CE activities (i.e., negative contribution). Specifically, if the positive perception of infotainment content decreases the frequency of negatively valenced CE activities, this in consequence will positively influence marketing outcomes.

3.2. Remunerative content, customer engagement and marketing outcomes

Some scholars recognize that people engage online to gain monetary benefits, e.g., discounts or take part in competitions (Gummerus et al., 2012). Others claim that remuneration leads to passive engagement
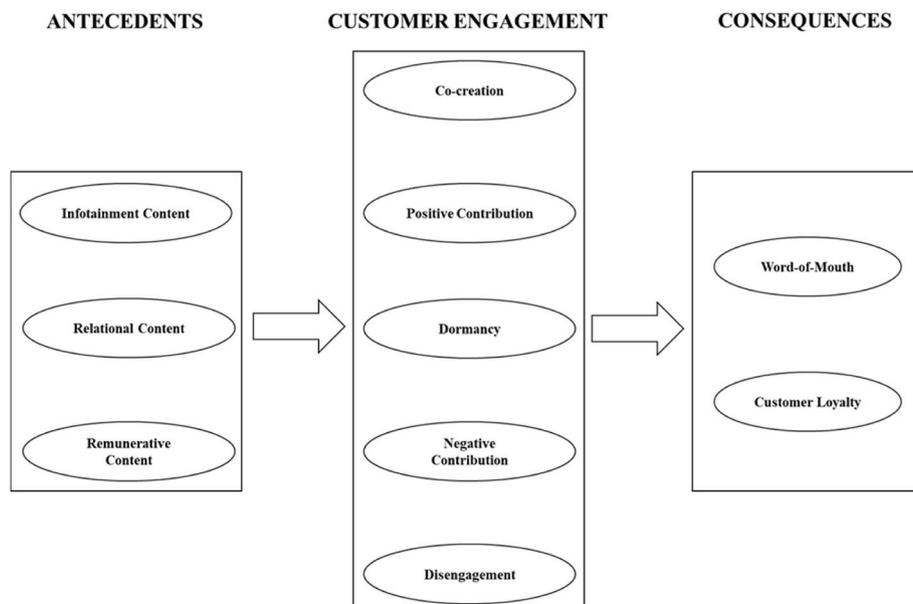

Fig. 1. Conceptual framework.

(Muntinga et al., 2011) or lower engagement levels compared to info-tainment content (Cvijikj and Michahelles, 2013). Although monetary incentives are found to affect customers' motivation to engage and contribute (Cvijikj and Michahelles, 2013), remuneration is least frequently mentioned as motivation for engagement on social media (Muntinga et al., 2011) and as a factor in willingness to engage in co-creation (Fernandes and Remelhe, 2016). Existing research shows inconclusive findings (positive, negative, or insignificant effects) regarding the relationship between the perception of remunerative content and engagement behaviors (Cvijikj and Michahelles, 2013; Dolan et al., 2019). According to Dolan et al. (2019), remunerative content positively relates to liking and sharing behaviors, while Cvijikj and Michahelles (2013) found that this content type has a positive effect on commenting, but a negative effect on liking behaviors. However, Lee et al. (2014) found that content with economic information, e.g., price mention, deals, or sale promotions, has a negative effect on commenting behaviors. Despite the inconclusive evidence, we test the relationship between the remunerative content and social media-based CE and posit that positive customer perception of remunerative content is likely to generate positively valenced CE behaviors (i.e., positive contribution) on social media. This empirical investigation will help to resolve in-consistences and mixed results of the previous research. In addition, like the infotainment content type, we expect that remunerative content will positively affect marketing outcomes, e.g., WOM and customer loyalty through social media-based CE. In other words, when people positively contribute to remunerative content, this engagement will positively drive marketing outcomes. Therefore, we propose:

H3.   The positive relationship between the perception of remunerative content and marketing outcomes – (a) customer loyalty and (b) WOM – is mediated by positively valenced CE behaviors (i.e., positive contri-bution). Specifically, if the positive perception of remunerative content increases the frequency of positively valenced CE behaviors, this in consequence will positively influence marketing outcomes.

Similarly, we expect that remunerative content will minimize negatively valenced CE on social media and consequently have a posi-tive impact on marketing outcomes. Therefore, we propose:

H4.   The positive relationship between the perception of remunerative content and marketing outcomes – (a) customer loyalty and (b) WOM – is mediated by negatively valenced CE behaviors (i.e., negative contri-bution). Specifically, if the positive perception of remunerative content decreases the frequency of negatively valenced CE behaviors, this in consequence will positively influence marketing outcomes.

3.3. Relational content, customer engagement and marketing outcomes

Firms might enhance the value of firm-related information by engaging customers through active experiences and relational content (Dolan et al., 2019). Existing research shows inconclusive findings (positive or insignificant effects) regarding the relationship between the perception of relational content and engagement behaviors (Dolan et al., 2019; Jahn and Kunz, 2012; Khan, 2017). Those who want to socialize and build relationships on social media are likely to exhibit either all social media metrics, e.g., liking, commenting, and sharing, and creating content (Jahn and Kunz, 2012) or only some metrics (Khan, 2017). Moreover, a number of firms have leveraged social media to foster customer co-creation and crowdsource new ideas as part of a marketing campaign (Rohm et al., 2013). Scholars argue that people often engage in co-creation because of the possibility to interact with like-minded others who they want to establish social relationships with. For example, Fernandes and Remelhe (2016) found that the desire to so-cialize with peers has a positive impact on willingness to engage in collaborative innovation. Moreover, higher engagement levels, e.g., customers' co-creation of products, services, or content, are suggested to

increase positive attitudes toward the firm or facilitate WOM (Lawrence et al., 2013). Despite limited research on consequences, relational con-tent may indirectly affect marketing outcomes, e.g., WOM and customer loyalty through social media-based CE (Jahn and Kunz, 2012). When people show their involvement with relational content through their positively valenced CE behaviors (e.g., positive contribution), their engagement will positively affect marketing outcomes. Therefore, we propose the following hypothesis:

H5.   The positive relationship between the perception of relational content and marketing outcomes – (a) customer loyalty and (b) WOM – is mediated by positively valenced CE behaviors (i.e., positive contri-bution). Specifically, if the positive perception of relational content in-creases the frequency of positively valenced CE behaviors, this in consequence will positively influence marketing outcomes.

In addition, recent marketing research highlights the detrimental impact of negatively valenced CE behavior in an online context (Azer and Alexander, 2020), e.g., negative WOM (Marbach et al., 2019; Juric et al., 2015) and financial and reputational consequences for firms (Kumar et al., 2010). Then again, customers may influence each other's valence of CE (Li et al., 2018). Customers tend to rely on each other for information about products or services, i.e., user-generated content, and accept other customers' influencing behavior to alleviate perceived risks and reduce their dependence on firm-generated content (Alexander et al., 2018). Similarly, social contagion, i.e., customers influencing each other, might play a role in shaping their attitudes and decisions to like or comment on the content (de Vries et al., 2012). Positive perception of the relational content can be argued to have the potential to influence customer attitudes towards the firms and their actions, e.g., mitigate negatively valenced CE and consecutively generate favorable marketing outcomes. Therefore, we propose:

H6.   The positive relationship between the perception of relational content and marketing outcomes – (a) customer loyalty and (b) WOM – is mediated by negatively valenced CE behaviors (i.e., negative contri-bution). Specifically, if the positive perception of relational content decreases the frequency of negatively valenced CE behaviors, this in consequence will positively influence marketing outcomes.

4. Empirical studies

This research is based on two empirical studies. Study 1 examines mediating effects of five CE behaviors (e.g., co-creation, positive contribution, negative contribution, dormancy, and disengagement) between three content types (e.g., infotainment, remunerative, and relational content) and two marketing outcomes (e.g., WOM, customer loyalty). For Study 1 we conduct an online survey with customers in the context of social media. Taking a detailed view into positive contribu-tion as an important form of CE, we conduct Study 2 to examine direct effects of content types on engagement metrics of positive contribution (e.g., Likes, Shares, and Comments). For Study 2 we conduct a field study to take a behavior-centric perspective and collect behavioral data from social media to complement the results of Study 1.

4.1. Study 1

4.1.1. Participants

Data were collected by means of an online cross-sectional survey using a panel of Chinese consumers from a marketing research agency. Participants had to meet eligibility criteria to participate in the survey. Participants had to be between 18 and 66 years old. They had to be located in the first or second tier cities (Beijing, Shanghai, Chengdu, and Xian). Participants were asked to name their favorite restaurant and had to be followers of the restaurant's account on WeChat. The restaurant name was then auto filled for the remaining questions relating to the

Table 2
Socio-demographics.

Demographic	Category	Frequency	Percentage
Gender	Female	260	50.0%
	Male	260	50.0%
Age (years)	Under 25	110	21.2%
	26–35	318	61.2%
	36–45	75	14.4%
	46–55	16	3.1%
	56 and older	1	0.2%
Education	Primary school	2	0.4%
	Secondary school/not finished university	40	7.7%
	Vocational education	24	4.6%
	Bachelor degree	366	70.4%
	Master degree	83	16%
	Other	5	1%
Monthly income before tax (RMB)	<3000	12	2.3%
	3000–5999	54	10.4%
	6000–8999	84	16.2%
	9000–11999	123	23.7%
	12000-14999	97	18.7%
	15000-17999	69	13.3%
	>18000	81	156%
Occupation	Student	16	3.1%
	Officer	34	6.5%
	Manager	268	51.5%
	Employee	137	26.3%
	Self-employed	24	4.6%
	Teacher	25	4.8%
	Other	16	3.1%
Region	Beijing	122	23.5%
	Shanghai	151	29.0%
	Guangzhou	77	14.8%
	Shenzhen	26	5.0%
	Tianjin	8	1.5%
	Second- tier cities: Chengdu, Xian, Wuhan, and other	136	26.2%

restaurant in the survey. Only fully complete questionnaires were delivered by the field agency. Five hundred twenty respondents fully completed the survey.

Gender was distributed evenly in the sample (50% males, 50% females). Participants were from 18 to 66 years old, with a mean age of 30 years (median = 30, standard deviation = 6.33). They were relatively well educated (see Table 2).

4.1.2. Measures

Participants were asked to answer questions related to the focal constructs of the conceptual framework (see Fig. 1) including content-related antecedents, dimensions, and consequences of CE. First, participants had to indicate their favorite restaurant and evaluate the restaurant's generated content on its WeChat platform in terms of the three content types (e.g., infotainment, remunerative, and relational). Infotainment and relational content types were measured using items by Jahn and Kunz (2012) while remunerative content was measured by self-developed items based on Muntinga et al.'s (2011) conceptualization. Participants rated content-related response items on a seven-point Likert scale (from 1 = "strongly disagree" to 7 = "strongly agree"). Second, participants assessed their engagement behaviors (i.e., co-creation, positive contribution, dormancy, negative contribution, and disengagement) in response to the content on their favorite restaurant's WeChat platform. Taking a behavior-centric perspective, we operationalized CE as a set of actions that customers take on social media, e.g., reacting to content (e.g., Likes), commenting on content (e.g., Comments), sharing content with others (e.g., Shares) and adapted Schivinski et al.'s (2016) conceptualization to develop items for co-creation, positive contribution, and negative contribution. The items for dormancy and disengagement were developed based on Brodie et al. (2011) and van Doorn et al. (2010). Participants rated positive and

negative contribution response items on a seven-point Likert scale (from 1 = "strongly disagree" to 7 = "strongly agree"), except for co-creation, dormancy and disengagement constructs that were measured by a single item. Lastly, participants were asked to report their WOM and loyalty toward their favorite restaurant. They rated response items on a seven-point Likert scale (from 1 = "never" to 7 = "very often"). WOM was measured with two items from Zeithaml et al. (1996), and loyalty was measured with five items suggested by Watson et al. (2015). The analysis revealed that one item should be removed from the loyalty measure. Moreover, the questionnaire was developed in English and translated into Chinese. To ensure conceptual equivalence, the translations were discussed with three independent translators whose native language was Chinese. The measures were pretested with 50 respondents. We conducted preliminary assessment, e.g., sample demographics and exploratory factor analysis.

4.1.3. Data analysis

Data analysis followed a two-step approach including the evaluation of the measurement models and the assessment of the structural model and hypotheses testing (Hair et al., 2017). Partial Least Squares-Structural Equation Modeling (PLS-SEM) using the SmartPLS 3.2 software (Ringle et al., 2015) was applied for assessing the measurement model and path estimations of the hypothesized model that focus on the relationships of CE behaviors according to the conceptual framework (Fig. 1). We used a bootstrapping approach with 5000 subsamples and the 95% bias-corrected and accelerated bootstrap confidence intervals to assess the significance of path coefficients (Ringle et al., 2015).

4.1.4. Results

For the measurement model assessment, we evaluated construct measure reliability (i.e., indicator reliability and internal consistency reliability) and validity (i.e., convergent and discriminant validity) (Hair et al., 2021). Indicator reliability was ensured as all indicators exhibited standardized indicator loadings larger than 0.7 and the average variance extracted (AVE) larger than 0.5 (Hair et al., 2021). An overview of items used in the analysis, factor loadings and AVE values is presented in Table 3. Regarding Cronbach's alpha (CA), composite reliability (CR), and AVE, the values for the latent constructs of both models were greater than the thresholds of CA > 0.8, CR > 0.7, and AVE >0.5 (Hair et al., 2021), thus meeting the recommended requirements (Table 4). Discriminant validity of all the latent constructs was examined applying the Fornell–Larcker criterion (Fornell and Larcker, 1981). All squared correlations among latent variables were smaller than their AVE; therefore, we consider the discriminant validity met by the constructs. In addition, it is recommended that researchers apply the heterotrait–monotrait (HTMT) criterion for PLS-SEM (Hair et al., 2021; Henseler et al., 2015). Results show that values of HTMT (except for the link between infotainment and remunerative content, HTMT = 0.92) were below the critical value of 0.85 (Hair et al., 2021), thus indicating discriminant validity. We estimated the model with the "the same source" first-order factor added to the construct indicators (Podsakoff et al., 2003) to examine the impact of potential common method bias.

The fit statistics indicate an adequate fit (standardized root mean squared residual (SRMR) is equal to 0.05, the normed fix index (NFI) is equal to 0.87). Using a PLS-SEM approach, we test causal–predictive relationships between the latent variables simultaneously.

First, *infotainment content* (IEC) had a significant positive effect only on positive contribution (PCONTR) ($\beta = 0.265$, $p < .001$). The relationships between the IEC and co-creation (COC) ($\beta = -0.008$, p = .921), dormancy (DOR) ($\beta = 0.022$, p = .83), negative contribution (NCONTR) ($\beta = 0.036$, p = .667) and disengagement (DIS) ($\beta = -0.006$, p = .953) were found insignificant. Moreover, IEC did not have a direct effect on WOM ($\beta = 0.014$, p = .84) and loyalty (LOYAL) ($\beta = -0.052$, p = .491). Nonetheless, we tested the hypothesis for mediating effects of the relationship between IEC and marketing outcomes and found

Table 3

Measurement scales.

Constructs and items (AVE)	Acronym	Loadings
Infotainment content (.71)	IEC	
The content of [restaurant name] on WeChat is helpful for me.	IEC1	.87
The content of [restaurant name] on WeChat is useful for me.	IEC2	.84
The content of [restaurant name] on WeChat is functional for me.	IEC3	.85
The content of [restaurant name] on WeChat is practical for me.	IEC4	.85
The content of [restaurant name] on WeChat is fun.	IEC5	.82
The content of [restaurant name] on WeChat is exciting.	IEC6	.85
The content of [restaurant name] on WeChat is pleasant.	IEC7	.82
The content of [restaurant name] on WeChat is entertaining.	IEC8	.85
Remunerative content (.79)	REMC	
The content of [restaurant name] on WeChat includes special offers.	REMC1	.90
The content of [restaurant name] on WeChat includes discounts.	REMC2	.90
The content of [restaurant name] on WeChat includes coupons that could be redeemed.	REMC3	.88
Relational content (.65)	RELC	
I can interact with [restaurant name] on WeChat.	RELC1	.84
I can communicate with [restaurant name] on WeChat.	RELC2	.83
I can give feedback to [restaurant name] on WeChat.	RELC3	.79
I can get answers from [restaurant name] on WeChat.	RELC4	.83
I can interact with other customers on WeChat account of [restaurant name].	RELC5	.76
I can read other customers' comments about [restaurant name] on WeChat account of [restaurant name].	RELC6	.79
Positive contribution (.66)	PCONTR	
How often do you like a positive comment on the WeChat account of [restaurant name]?	PCONTR1	.81
How often do you comment on a positive comment on the WeChat account of [restaurant name]?	PCONTR2	.82
How often do you write a positive comment under posts on the WeChat account of [restaurant name]?	PCONTR3	.82
How often do you share the posts of the WeChat account of [restaurant name] on your own WeChat?	PCONTR4	.79
How often do you share the posts of the WeChat account of [restaurant name] to your relatives and friends?	PCONTR5	.82
Co-creation	COC	
If you send your feedback to [restaurant name] on WeChat, what would you expect your feedback should lead to? Please select one of the following: Nothing/ Slight improvements in products or services of the restaurant/New products, recipes or services of the restaurant		
Negative contribution (.85)	NCONTR	
How often do you like a negative comment on the WeChat account of [restaurant name]?	NCONTR1	.95
How often do you comment on a negative comment on the WeChat account of [restaurant name]?	NCONTR2	.80
How often do you write a negative comment on the WeChat account of [restaurant name]?	NCONTR3	.95
How often do you share a negative comment on the WeChat account of [restaurant name] on your own WeChat?	NCONTR4	.95
How often do you share a negative comment about [restaurant name] to your relatives and friends?	NCONTR5	.94
Dormancy	DOR	
Have you previously been temporarily inactive or have disabled notifications on the WeChat account of X? Yes/ No		
Disengagement	DIS	
Have you previously unfollowed the WeChat account of [restaurant name]? Yes/No		
Word-of-mouth (.88)	WOM	
I introduce [restaurant name] to other people.	WOM1	.94
I recommend [restaurant name] to other people.	WOM2	.94

Table 3 (*continued*)

Constructs and items (AVE)	Acronym	Loadings
Customer loyalty (.67)	LOYAL	
I often buy products/services from [restaurant name].	LOYAL1	.83
The last time I purchased a product/service, I bought it from [restaurant name].	LOYAL2	.75
I frequently buy from [restaurant name].	LOYAL3	.87
Mostly I buy from [restaurant name].	LOYAL4	.86

Note: IEC = Infotainment content, REM = Remunerative content, REL = Relational content, PCONTR = Positive contribution, COC=Co-creation, NCONTR = Negative contribution, DIS = Disengagement, DOR = Dormancy, WOM = Word-of-mouth, LOYAL = Customer loyalty.

significant mediating effects through positive contribution (PCONTR) on both, WOM (β = .101, p = .002) and LOYAL (β = 0.108, p = .002).

Second, *remunerative content* (REMC) had significant negative effects on positive contribution (PCONTR) (β = −0.168, p = .021) and negative contribution (NCONTR) (β = −0.175, p = .016). The relationships between REMC and co-creation (COC) (β = 0.045, p = .579), dormancy (DOR) (β = 0.079, p = .38) and disengagement (DIS) (β = 0.068, p = .516) were found insignificant. Regarding consequences, REMC did not have direct effects on WOM (β = −0.036, p = .594) and LOYAL (β = 0.018, p = .81). Furthermore, while negative contribution acted as mediator between REMC and WOM (β = 0.028, p = .031), positive contribution negatively mediated the relationship between REMC and WOM (β = −0.064, p = .035) and REMC and LOYAL (β = 0.068, p = .036).

Third, *relational content* (RELC) displayed a significant effect on positive contribution (PCONTR) (β = 0.634, p < .001), co-creation (COC) (β = 0.291, p < .001), and on disengagement (DIS) (β = 0.189, p = .001). The relationship between RELC negative contribution (NCONTR) (β = −.115, p = .055) and dormancy (DOR) (β = 0.043, p = .46) was found insignificant. With regards to consequences, RELC was found to have a positive direct effect on both, WOM (β = 0.234, p= < .001) and LOYAL (β = 0.291, p < .001). Moreover, positive contribution (PCONTR) and co-creation (COC) acted as mediator for the relationship between RELC and WOM (β = 0.243, p < .001; β = 0.043, p = .001) as well as between RELC and LOYAL (β = 0.258, p < .001; β = 0.034, p = .013).

Table 5 displays the results of direct and mediating effects between antecedents, CE behaviors and consequences.

Based on the observation of a relative importance of positive contribution as mediator, an additional model with content types (IEC, REMC, and RELC) as antecedents and WOM and customer loyalty as consequences, but more detailed view into positive contribution, was analyzed. Positive contribution was differentiated with regard to participants' likelihood of liking (Likes: *how often do you like a positive comment on the WeChat account of [restaurant name]?*), sharing (Shares: *how often do you share the posts of the WeChat account of [restaurant name] on your own WeChat? how often do you share the posts of the WeChat account of [restaurant name] to your relatives and friends?*), and commenting (Comments: *how often do you comment on a positive comment on the WeChat account of [restaurant name]? how often do you write a positive comment under posts on the WeChat account of [restaurant name]?*) on a given content. PLS-SEM (Ringle et al., 2015) was applied for assessing the measurement model and path estimations. We used a bootstrapping approach with 5000 subsamples and the 95% bias-corrected and accelerated bootstrap confidence intervals to assess the significance of path coefficients (Ringle et al., 2015).

With regards to the assessment of the measurement model, a similar procedure compared to model 1 was used. Indicator reliability was ensured as all indicators exhibited standardized indicator loadings larger than 0.7 and AVE larger than 0.5 (Hair et al., 2021). Cronbach's alpha (CA), composite reliability (CR), and the values for the latent constructs of both models were adequate and greater than the thresholds of CA > 0.8, CR > 0.7, (Hair et al., 2021), thus meeting the

Table 4

Mean and Standard Deviations, Cronbach's alpha, Composite Reliability and Discriminant Validity based on Fornell-Larcker.

Construct	M (SD)	CA	CR	IEC	REMC	RELC	COC	PCONTR	NCONTR	DOR	DIS	WOM	LOYAL
IEC	5.17 (1.29)	.94	.95	0.844									
REMC	5.25 (1.41)	.87	.92	0.829	0.892								
RELC	5.43 (1.12)	.89	.92	0.529	0.466	0.805							
COC	2.39 (0.53)			0.183	0.174	0.308	/						
PCONTR	5.43 (1.05)	.87	.91	0.461	0.347	0.696	0.280	0.814					
NCONTR	2.97 (0.17)	.96	.97	−0.170	−0.199	−0.178	−0.092	−0.068	0.920				
DOR	/	/	/	0.110	0.117	0.091	0.132	0.039	−0.115	/			
DIS	/	/	/	0.150	0.151	0.218	0.161	0.206	−0.081	0.451	/		
WOM	5.74 (1.08)	.86	.94	0.333	0.270	0.559	0.332	0.587	−0.234	0.041	0.134	0.938	
LOYAL	5.43 (1.11)	.85	.90	0.323	0.269	0.591	0.309	0.627	−0.080	0.008	0.163	0.673	0.828

Note: IEC = Infotainment content, REM = Remunerative content, REL = Relational content, PCONTR = Positive contribution, COC═Co-creation, NCONTR = Negative contribution, DIS = Disengagement, DOR = Dormancy, WOM = Word-of-mouth, LOYAL = Customer loyalty, M = Mean, SD = Standard deviation, CA = Cronbach's alpha, CR = Composite reliability.

Table 5

Structural model results – direct effects and mediation effects.

IV	DV: PCONTR		DV: COC		DV: NCONTR		DV: DOR		DV: DIS	
	Beta	R^2	Beta	R^2	Beta	R^2	Beta	R^2	Beta	R^2
Content: IEC	0.265**	0.526	−0.008	0.096	0.036	0.049	0.022	0.016	−0.006	0.051
Content: REMC	−0.168*		0.045		−0.175*		0.079		0.068	
Content: RELC	0.634**		0.291**		−0.115		0.043		0.189**	

IV	DV: WOM		DV: LOYAL		Mediator	DV: WOM	DV: LOYAL
	Beta	R^2	Beta	R^2		Beta	Beta
Content: IEC	0.014	0.433	−0.052	0.455	PCONTR	.101**	.108**
					COC	−.001	−.001
					NCONTR	−.006	<.001
					DOR	<.001	−.001
					DIS	<.001	<.001
Content: REMC	−0.036		0.018		PCONTR	−.064*	−.07*
					COC	.007	.005
					NCONTR	.03*	<.001
					DOR	−.002	−.005
					DIS	−.001	.002
Content: RELC	0.234**		0.291**		PCONTR	.243**	.26**
					COC	.04**	.03*
					NCONTR	.02	<.001
					DOR	−.001	−.003
					DIS	−.004	.006
CE: PCONTR	0.383**		0.407**				
CE: COC	0.147**		0.115**				
CE: NCONTR	−0.162**		<.001				
CE: DOR	−0.022		−0.060				
CE: DIS	−0.020		0.030				

Note: **p < .01; *p < .05; DV = Dependent variable, IV = Independent variable, IEC = Infotainment content, REM = Remunerative content, REL = Relational content, CE= Customer engagement, PCONTR = Positive contribution, COC═Co-creation, NCONTR = Negative contribution, DIS = Disengagement, DOR = Dormancy, WOM = Word-of-mouth, LOYAL = Customer loyalty.

recommended requirements. Discriminant validity of the latent constructs was examined applying the Fornell–Larcker criterion (Fornell and Larcker, 1981). All squared correlations among latent variables were smaller than their AVE; thus, we consider the discriminant validity met by the constructs.

First, *infotainment content* (IEC) positively and significantly affected Likes (β = 0.207, p = .006), Shares (β = 0.281, p = .001) and Comments (β = 0.194, p = .029). IEC had no direct effect on WOM (β = −0.004, p = .951) and LOYAL (β = −0.064, p = .382). Furthermore, while Likes mediated the relationship between IEC and WOM only (β = 0.039, p = .047), Shares mediated the relationship between IEC and WOM (β = 0.061, p = .021) and between IEC and LOYAL (β = 0.067, p = .009).

Second, *remunerative content* (REMC) had a significant negative effect on Shares (β = −0.266; p = .003) while effects on Likes and Comments were found insignificant (β = −0.072, p = .322; β = −0.066, p = .458). REMC had no direct effect on WOM (β = 0.01, p = .885) and LOYAL (β = 0.03 p = .645). Furthermore, Shares mediated the relationship between REMC and WOM (β = −0.058, p = .034) as well as between REMC and LOYAL (β = − 0.064, p = .017).

Third, *relational content* (RELC) significantly affected Likes (β = 0.521, p < .001), Shares (β = 0.586, p < .001), and Comments (β = 0.548, p < .001). RELC had direct effects on WOM (β = 0.281, p < .001) and LOYAL (β = 0.311, p < .001). Moreover, while Likes and Shares acted as mediators of the relationship between RELC and WOM (Likes: β = 0.099, p = .0012; Shares: β = 0.128, p = .002), Shares and Comments mediated the relationship between RELC and LOYAL (Shares: β = 0.140, p = .001; Comments: β = 0.086, p = .027). Only Shares had a positive direct effect on both, WOM (β = 0.219, p = .002) and LOYAL (β = 0.239, p < .001). Likes was positively related to WOM (β = 0.190, p = .002) and Comments was positively related to LOYAL (β = 0.157, p = .018).

Overall, Study 1 shows that the relationships between social media content types and marketing outcomes are mediated by CE behaviors. In particular, relational content has a greater mediating effect of positive contribution on WOM and customer loyalty, compared to infotainment

content and remunerative content; yet, remunerative content displays negative effects. Only relational content shows a mediating effect of co-creation on both outcomes. Only remunerative content type has a mediating effect of negative contribution on WOM. However, the effect is negative. No differences are found for dormancy and disengagement. The results find support for H1a, H1b, H5a, and H5b. Although remunerative content has a significant mediating effect of positive contribution on both outcomes and of negative contribution on WOM, the effects are of the opposite directions than anticipated; thus, H3a, H3b and H4a are not supported. Importantly, positive contribution that reflects a moderate level of active CE (Schivinski et al., 2016) appears to exhibit mediating effects between all content types and outcomes. In line with hypotheses, positive contribution acts as an important mediator through which content relates to marketing outcomes, offering important implications for development of content strategies to generate marketing outcomes.

4.2. Study 2

Based on Study 1 results and the relative importance of positive contribution, the objective of Study 2 is to examine direct effects of three content types (e.g., infotainment, remunerative, and relational content) on three engagement metrics of positive contribution (e.g., Likes, Shares, and Comments). It is important to distinguish between the metrics because they reflect different customer behavioral responses and indicate how engaging firm marketing activities are on social media (Moran et al., 2019). Likes enable customers to indicate their interest reaction toward specific content (Swani and Labrecque, 2020). Comments and shares enable firm/customer interactions and intensify the reach of the content to others (de Vries et al., 2012).

4.2.1. Data and sample

We collected consumer behavioral data from a restaurant in China. The dataset consists of social media campaigns that were developed and launched by the restaurant on its official WeChat account from January to May 2020. Each campaign contains a name, specific content, launch date, and social media metrics, i.e., a number of reads, number of likes, number of comments, and number of shares. The campaigns were launched in batches of different content; thus, timing or the sequence of the content within a batch was recorded. We extracted 68 WeChat campaigns, yielding a total of 26731 Reads, 74 Likes, 793 Shares, and 30 Comments from the followers of the restaurant's WeChat account. We did not measure valence of CE, i.e., positive and negative comments.

Given the number of campaigns (n = 68), we opted for manual categorization of three content types following two steps. First, we defined coding instructions according to the existing literature to analyze the textual or qualitative content data. Second, two coders used the instructions to categorize the content for quantitative analysis. The coders then discussed the content, especially the incongruent instances, to ensure high agreement in categorization. Following the Study 1, we categorized the extracted campaigns according to three content types, i.e., infotainment content (n = 21), remunerative content (n = 34), and relational content (n = 13). Furthermore, with respect to dependency between passive consumption (i.e., reads) and the respective chance of active contribution (i.e., Likes, Comments), we used a relative measure for each active contribution for further analyses. Thus, the ratio of *Likes, Shares and Comments* was calculated by dividing the number of *Reads* from the observed number of active contributions for each content using the following formulas:

Likes ratio $=$ (*Number of Likes*) / (*Number of Reads*)

Shares ratio $=$ (*Number of Shares*) / (*Number of Reads*)

Comments ratio $=$ (*Number of Comments*) / (*Number of Reads*)

4.2.2. Data analysis and results

First, a univariate analysis (univariate GLM) was used with *Reads* as dependent variable, content type (infotainment (IEC), remunerative (REMC), relational (RELC)) as fixed factor and timing as covariate (including interaction). The analysis showed significant main effects of content type ($F_{(2, 68)} = 3.77$, p = .029) and timing ($F_{(1, 68)} = 15.22$, p < .001), but no interaction effect of content type and timing ($F_{(2, 68)} = 0.69$, p = .504) on Reads ($R^2 = 0.35$). Bonferroni-corrected pairwise comparison (evaluated with timing at the value of 2.6) showed significantly higher values of Reads for IEC (M = 612.89, SE = 66.61) compared to REMC (M = 308.49, SE = 53.35; p = .002) and RELC (M = 244.65 SE = 92.31; p = .006). No difference between REMC and RELC was found.

Second, a univariate analysis (univariate GLM) was used with *Likes ratio* as dependent variable, content type (infotainment (IEC), remunerative (REMC), relational (RELC)) as fixed factor and timing as covariate (including interaction). The analysis showed a significant main effect of content type ($F_{(2, 68)} = 7.85$, p = .001), but no main effect of timing ($F_{(1, 68)} = 2.98$, p = .089) nor any interaction effect of content type and timing ($F_{(2, 68)} = 2.82$, p = .067) on share of Likes ($R^2 = 0.29$). Bonferroni-corrected pairwise comparison (evaluated with timing at the value of 2.6) showed especially significantly higher values for *Likes ratio* for IEC (M = 0.004, SE = 0.001) compared to REMC (M = 0.001, SE = 0.001; p = .001) and RELC (M = 0.001, SE = 0.001; p = .03). No difference between REMC and RELC was found.

Third, a univariate analysis (univariate GLM) was used with *Shares ratio* as dependent variable, content type (infotainment (IEC), remunerative (REMC), relational (RELC)) as fixed factor and timing as covariate (including interaction). The analysis showed neither significant main effects of content type ($F_{(2, 68)} = 0.09$, p = .919), timing ($F_{(1, 68)} = 0.115$, p = .736) nor a significant interaction effect of content type and timing ($F_{(2, 68)} = 0.006$, p = .994) on *Shares ratio* ($R^2 = 0.02$). Bonferroni-corrected pairwise comparison (evaluated with timing at the value of 2.6) showed no differences between IEC (M = 0.022, SE = 0.027), REMC (M = 0.051, SE = 0.022) and RELC (M = 0.03, SE = 0.038).

Fourth, a univariate analysis (univariate GLM) was used with *Comments ratio* as dependent variable, content type (infotainment (IEC), remunerative (REMC), relational (RELC)) as fixed factor and timing as covariate (including interaction). The analysis showed significant main effects of content type ($F_{(2, 68)} = 6.02$, p = .004), timing ($F_{(1, 68)} = 6.34$, p = .014) and an interaction effect of content type and timing ($F_{(2, 68)} = 3.77$, p = .029) on *Comments ratio* ($R^2 = 0.20$). Bonferroni-corrected pairwise comparison (evaluated with timing at the value of 2.6) showed especially significantly higher values for *Comments ratio* for RELC (M = 0.005, SE = 0.001) compared to IEC (M = 0.001, SE = 0.001; p = .035) and REMC (M = 0.0002, SE = 0.001; p = .005). No significant difference between IEC and REMC was found.

Overall, Study 2 addresses the significant effect of content types on positive contribution found in Study 1. Study 2 takes a detailed view into positive contribution by focusing on its engagement metrics e.g., Likes, Shares, Comments, which are commonly used to measure positive contribution. As described earlier, liking firm-related content enables customers to indicate their interest toward social media content (Swani and Labrecque, 2020). Commenting on and sharing firm-related content enable customer-to-firm and customer-to-customer interaction and dissemination of the content to others (de Vries et al., 2012). Study 2 uncovers which content types are effective to generate positive customer responses. In line with Study 1, the results of Study 2 show that all content types relate to Likes. While infotainment content exhibits greater effects than other types in Study 2, remunerative content shows negative effects in Study 1. All content types display significant relationships with Comments; yet, relational content exhibits greater effects compared to the other two content types. We find the results of Study 1 and Study 2 to be mainly consistent regarding the social media metrics (e.g., Likes, Shares, Comments).

5. Discussion

5.1. Theoretical implications

The present research offers new scientific insights by examining antecedents, dimensions, and consequences of CE in the social media context.

First, this research contributes to literature on digital marketing by applying the underlying principles of uses and gratification theory to define the typology of social media marketing content being categorized into three types, i.e., infotainment, remunerative, and relational content to reflect distinct customer needs. Infotainment content is expected to gratify customer needs for information and enjoyment (Rohm et al., 2013) and "deliver information and/or entertain customers with new, factual, useful, educational, and/or interesting information" (Gavilanes et al., 2018, p. 7). Remunerative content is expected to deliver customer perceived monetary value from sales promotions and incentives (Cvijikj and Michahelles, 2013) while relational content might gratify their needs for social interaction and building relationships (Dolan et al., 2019). This typology can be applied in both product and service settings. Moreover, the research findings imply that customers fulfill their specific needs through their engagement with specific content types, particularly consumption of or contribution to the digital content.

Second, this research enriches literature on CE and digital marketing by examining CE as a mediator for the relationship between social media content and marketing outcomes. We have found evidence supporting the conceptual framework that links three distinct content types (e.g., infotainment, remunerative, and relational) with five distinct CE behaviors (e.g., co-creation, positive contribution, dormancy, negative contribution, and disengagement), illustrating how these content types in turn relate to two marketing outcomes (e.g., WOM and customer loyalty). It is important to recognize that the five engagement behaviors can take different intensity levels (low, moderate, high) and valence (positive, negative). This research contributes by focusing on both positively and negatively valenced CE behaviors. In general, the findings suggest varying effects of content types on CE and underline the important mediating role of positive contribution (a moderate, positive engagement level) in all instances of content types. Co-creation (a high, positive engagement level) mediates the relationship of relational content and both marketing outcomes (WOM, customer loyalty). Negative contribution (a moderate, negative engagement level) mediates the relationship between remunerative content and both marketing outcomes (WOM, customer loyalty). Two other engagement levels, i.e., disengagement and dormancy do not demonstrate mediation effects. However, as CE evolves over time (Bowden et al., 2015), the latter engagement behaviors may have important implications over time.

Regarding *infotainment content*, in line with previous studies (Cvijikj and Michahelles, 2013; Demmers et al., 2020), our results show that customers do not only passively consume this content type but also positively contribute to the content through all social media metrics - Likes, Shares, and Comments. These results help resolve the inconsistent (positive/insignificant) findings of the previous research (Cvijikj and Michahelles, 2013; De Vries et al., 2012; Dolan et al., 2019). In support of our proposed framework (see Fig. 1), our results also confirm a mediating role of social media-based CE between content and marketing outcomes, e.g., when customers engage with firm-related infotainment content through positively valenced behaviors (positive contribution), this then positively drives their WOM and loyalty towards the firm. However, the study did not find support for the mediating role of negatively valenced behaviors (negative contribution), which implies that this content type is unlikely to lead to negative social media-based engagement.

Regarding *remunerative content*, in contrast to previous research studies (Cvijikj and Michahelles, 2013; Dolan et al., 2019), our results show a direct negative effect on CE behaviors, i.e., positive and negative contributions and thus imply that this content type is unlikely to lead to

neither positive nor negative engagement. For example, customers may consume (read) content with monetary elements, but not actively engage with it through Likes and Comments, and thus implementing only this social media marketing strategy is unlikely to increase engagement on the platform. Moreover, in support of our proposed model, negative contribution has a mediating effect between remunerative content and WOM while positive contribution mediates the relationships between the content and WOM and loyalty. However, the relationships are negative; thus, yielding important theoretical insight. Therefore, implementing remunerative content extensively is counterproductive as it does not seem to stimulate CE for building long-term relationships, customer advocacy and loyalty; and may only relate to short-term transactional outcomes.

Regarding *relational content,* in line with previous studies (Jahn and Kunz, 2012; Khan, 2017), customers who want to socialize and build firm/customer relationships on social media exhibit positively valenced engagement behaviors, i.e., positive contribution and co-creation. Relational content is found to be the most influential in comparison to infotainment and remunerative contents, by generating engagement through all social media metrics – Likes, Shares, and Comments as well as leading to marketing outcomes, e.g., WOM and customer loyalty. A possible explanation for this result can be related to customers' need for social interaction (Khan, 2017) as well as social contagion i.e., customers influencing each other (de Vries et al., 2012), that might play a role in customers' decision to contribute to and create firm-related content. This implies that firms' social media marketing activities should be directed at establishing, developing, and maintaining relationships with customers through relational content.

5.2. Managerial implications

This research has important implications for marketing managers in the development of digital marketing strategies for stimulating CE and generating favorable marketing outcomes.

First, empirical findings show that firm's social media marketing activities lead to WOM and customer loyalty, through CE. More importantly, relational content is found to stimulate moderate to high level of CE such as positive contribution (Likes, Shares, Comments) and co-creation (customers providing their suggestions for improvements in the offerings of service firms, e.g., restaurants), which in turn enhances WOM and customer loyalty as demonstrated in this study. The finding implies that customers who are engaged or highly engaged contribute to the enhanced marketing outcomes (Pansari and Kumar, 2017). Managers should deploy both relational and infotainment content types to initiate firm/customer interaction that will enhance customer advocacy and loyalty. Importantly, remunerative content does not seem to stimulate CE. This finding implies that the use of remunerative content with embedded occasional deals might be counterintuitive and not the most effective strategy for the firm to drive active and deeper CE on social media (Marketing Science Institute, 2020).

Second, the findings suggest that marketing managers should take a strategic decision to develop and implement content design strategies according to the needs of their customer segment, the firm's anticipated outcomes, and the contextual setting. Customers seek content on social media because of their specific needs; likewise, the delivery of varying content types is expected to gratify those needs (Carlson et al., 2018; Khan, 2017) and maximize customer value (Hollebeek and Macky, 2019; Kumar and Reinartz, 2016). Moreover, the contextual setting, such as where a customer is in the customer journey (Colicev et al., 2019; Demmers et al., 2020), might influence effective implementation of content marketing strategies. For example, remunerative content deems useful to attract customers with incentives in the pre-consumption stage (Odoom et al., 2017) while infotainment content may stimulate engagement and advocacy in the pre- or post-consumption stage (Demmers et al., 2020). Relational content could be considered for enhancing advocacy and loyalty toward the firm

and maintaining relationships with customers in the post-consumption stage.

Overall, marketers are advised to go beyond remunerative content and incorporate entertaining and relational elements in the content for stimulating firm-to-customer and customer-to-customer interaction that is essential for maintaining CE and building relationships with customers (Kumar and Reinartz, 2016).

5.3. Limitations and future research

The present research has limitations that provide avenues for future research. First, our research is limited to single contexts and the related sampling strategy, e.g., a service sector, restaurants; a social media platform, WeChat; and a country, China. We suggest replication of our research design across different settings and different strategy of participant selection to further validate the proposed model and examine the effects of the proposed content types on CE in other sectors of the service industry as well as the product industry. Future studies may explore CE in different online platforms used by the same firm. Specifically, more attention is needed to the effectiveness of content types across different platforms. Second, the findings highlight the relational content type being related not only to positive contribution (a moderate, positive engagement level) but also to co-creation (a high, positive engagement level); future research might consider addressing design of relational content and different design elements embedded in the content (Harmeling et al., 2017). Third, potential moderators such as customers' personality might affect the effectiveness of social media marketing. Individual factors like personality traits might influence customer response to social media marketing activities (Islam et al., 2017). Future research should explore how individuals' personality traits influence their engagement with content. Finally, a majority of research focuses on positive CE while other forms of CE, including negative engagement, dormancy, and disengagement, have been underexplored. As the CE concept evolves over time (Bowden et al., 2015), these CE behaviors might show different effects over time; therefore, future research should consider conducting a longitudinal study.

5.4. Conclusion

This research focused on social media context and examined customer engagement with firm's content as an engagement object. It adopted a behavioral perspective to examine CE behaviors as mediators for the relationship between distinct content types and marketing outcomes. The findings found support for the proposed conceptual framework that links three content types, e.g., infotainment, remunerative, and relational content, with five CE behaviors, e.g., co-creation, positive contribution, dormancy, negative contribution, and disengagement, illustrating how these types in turn relate to two marketing outcomes, e. g., WOW, and customer loyalty. The findings reveal varying effects of content types on engagement and outcomes; yet, infotainment and relational content types show greater effects on outcomes, suggesting that customers purposely choose to engage with and contribute to the content, which gratifies their needs for information, entertainment or socialization and enables them to build relationships with the firm and other customers though social media-based interactions. On the other hand, content with remunerative incentives does not seem to stimulate engagement. This research contributes to the literature by assessing the relevance and significance of content types in facilitating social media-based CE that in turn drives customer advocacy and loyalty.

Declaration of competing interest

None.

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