The role of consumer-consumer interaction and consumer-brand interaction in driving consumer-brand engagement and behavioral intentions

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ABSTRACT

Grounded on service-dominant logic (S-D logic), a vital issue for marketers is to understand how the multiple approaches encouraging consumer participation (CP), as manifested by consumer-consumer interaction (CCI) and consumer-brand interaction (CBI), reflect on the extent of consumer-brand engagement (CBE). This study examines the role of CCI and CBI in driving the CBE's cognitive, emotional and behavioral dimensions, and their effect on consumers' behavioral intentions based on repurchase intention and ongoing search behavior. Data collected from 316 Malaysian consumers using a self-administrated online survey was analyzed using Partial Least Square – Structural Equation Modelling (PLS-SEM). The findings demonstrate the importance of the two forms of CP in strengthening the CBE dimensions, revealing that the cognitive engagement is an influential driver of consumers' ongoing search behavior, while emotional engagement and behavioral engagement are significant predictors of consumers' repurchase intention. We provide meaningful implications for marketers to manage CP on social-media platforms.

1. Introduction

The advancement of Web 2.0 applications has transformed social media into a participatory platform that encourages consumers to engage, connect and share ideas and opinions with like-minded peers and brands at large (Kamboj and Sarmah, 2018; Thevenot, 2007). Using Facebook, YouTube and Instagram, amongst other platforms, consumers can interact with like-minded peers and marketers by sharing their experiences, raising enquires, commenting and contributing ideas about products to brands for quality improvement or new product development (Mustak et al., 2016; Schultz, 2017; Vivek et al., 2012). Reportedly, more than 70% of consumers are willing to share their brand-related experiences with their peers on social-media platforms, initiating more than 500 million daily active stories on Instagram (Oberlo, 2020). Interactions between consumers are particularly

meaningful for young consumers, as more than 40% of these are willing to spend an average of more than 2 h (140 min) per day sharing information with their like-minded peers, whilst more than 50% of young consumers are willing to follow the comments and sharing available on social-media platforms in their decision-making processes (Smart Insights, 2020). Such interactions can be interpreted as consumer participation (CP) through social-media platforms (Carlson et al., 2019).

Due to this evolving trend, brands have invested considerable effort and resources in strategically facilitating consumer participation (CP) on digital platforms, thus empowers consumers by co-creating brand-value ownership (Carlson et al., 2018). There are two forms of CP, consumer-to-consumer interaction (CCI) and consumer-brand interaction (CBI), with the former manifesting itself by the sharing of information about products (both goods and services) and brands amongst consumers (Tajvidi et al., 2017), whilst the latter is manifested by

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consumers' contribution of ideas and comments to brands for improvement (France et al., 2015). The wide adoption of this strategy by business explains that more than 80% of Fortune 500 companies utilize social-media platforms to interact with consumers, thus facilitating the two CP forms, in order to build favorable and robust brand knowledge amongst consumers (Hinson et al., 2019; Schivinski et al., 2016).

Illustrating the case of consumer-consumer interaction (CCI), Nike developed a digital communication platform "NikePlus app", where consumers are able to share their running experiences, training progress and performance with their like-minded peers in the digital community, in order to co-create knowledge in sports and the focal brand (Ramaswamy and Ozcan, 2016). Sperry Top-Sider developed a Facebook fan page for consumers to interact with each other, seeking to understand the benefits and features of various offers in their decision-making processes (Kim and Johnson, 2016). Aiming to facilitate consumer-brand interaction (CBI), Starbucks developed the online community "MyStarbucksIdea.com" where consumers are able to provide feedback and suggestions to improve goods and services, as well as to co-design packaging (Lee and Suh, 2016). Similarly, Audi organized an online campaign inviting consumers to co-create advertising videos that promote the image of the brand (Gatautis and Vitkauskaite, 2014).

Although CP may contribute to firms' new product development and value creation on social-media platforms (Gensler et al., 2013), negative word-of-mouth generated by social media users can cause a public-relations crisis for a brand that could lead to undesirable outcomes, such as brand dilution and the overall erosion of firm value (Verhagen et al., 2013). To effectively handle consumers' complaints, businesses can actively track negative word-of-mouth communication by using monitoring tools and initiating remedial contact with dissatisfied consumers (Balaji et al., 2016), aimed at improved outcomes for both consumers and brands. Hence, CP may help brands achieve desirable long-term outcomes and mitigate possible consumer dissatisfaction effects (Tajvidi et al., 2017). Ultimately, the growing importance of the two forms of CP explains heightened scholarly attention seeking to understand how social-media platforms may facilitate CCI and CBI, building consumer-brand relationships and, subsequently, shaping consumers' behavioral intentions based on repurchase intention and ongoing search behavior (Carlson et al., 2019; Heinonen et al., 2018).

One of the aspects that is inextricably linked to the two forms of CP is consumer-brand engagement (CBE), defined as "the level of a customer's cognitive, emotional and behavioral investment in specific brand interactions (Hollebeek, 2011: 565). This investment arises from the intensity of CCI and CBI, regarded as a crucial phase in the process of developing strong and positive brand knowledge in consumers' minds (Carlson et al., 2019; Choi and Kim, 2020; Tajvidi et al., 2017).

Multiple studies have acknowledged the importance of CP in the construction of CBE and its subsequent behavioral outcomes, such as consumer loyalty and purchase intention (Dessart et al., 2015; France et al., 2015; Harmeling et al., 2017; Mustak et al., 2016). However, although CP is conceptualized as consumers' participative behaviors involving both CBI and CCI, empirical studies examining their collective influence on CBE and consumers' behavioral responses are lacking. Empirical studies typically conceptualize CP as the interaction between consumers and brands that facilitates value co-creation, subsequently driving positive business outcomes (e.g., Carlson et al., 2019; Choi et al., 2016; Cossío-Silva et al., 2016; Seifert and Kwon, 2019; Wu et al., 2017). Some recent studies have examined the importance of CCI in driving consumer-brand relationships (e.g. Abdul-Ghani et al., 2018; Heinonen et al., 2018; Zhang et al., 2017). But, how CCI and CBI drive CBE's cognitive, emotional and behavioral dimensions remains to be explored.

Furthermore, empirical studies typically operationalize CBE as a second-order construct (e.g. Cheung et al., 2020c; Dwivedi, 2015; Hinson et al., 2019; Kosiba et al., Liu et al., 2018), examining the collective influence of CBE on consumers' behavioral intention, such as repurchase intention and ongoing search behavior. This has resulted in an inadequate understanding of the comparative influence that each of the three

CBE dimensions has on consumers' behavioral intention. More specifically, scholarly understanding is limited regarding the antecedents of the cognitive, emotional and behavioral CBE dimensions, as well as the relative importance of each of these in driving consumers' ongoing search behavior and repurchase intention. This is an important lacuna, because each dimension reflects a different level of consumer-brand relationships. For example, cognitive engagement reflects consumers' awareness and attention on the focal brand, whilst emotional engagement reflects consumers' affection and passion for the brand, and behavioral engagement reflects consumers' loyalty intention toward the brand (Dessart et al., 2019; Leckie et al., 2016). As the three CBE dimensions play differential roles in improving brand performance, it is important to understand their antecedents and consequences, particularly with respect to evaluating the effectiveness of their interaction on social-media platforms (Cheung et al., 2020; Dessart et al., 2019; Hollebeek et al., 2014).

In summary, conceptualizing and investigating CBE as overall engagement – i.e. a second-order construct –led to an inadequate understanding of the brand-building process. Hence, the brand management literature has called for further research examining the differential roles of the three CBE dimensions – including their antecedents and consequents – in order to better understand CBE (Dessart et al., 2019). This justifies a comprehensive study to discern the importance of the two forms of CP, namely CCI and CBI, in driving the three CBE dimensions individually, and their subsequent effects on consumers' ongoing search behavior and repurchase intention. Developed from the discussion in this section and seeking to advance understanding in the area of CP and CBE, the present study addresses the following two research questions:

1. What is the impact of CCI and CBI on the cognitive, emotional and behavioral dimensions of CBE?
2. What is the impact of the dimensions of CBE on consumers' ongoing search behavior and repurchase intention?

This study contributes significant theoretical and managerial implications in addressing these research questions. Theoretically, this study presents a theoretical framework to explore the impact of CCI and CBI on the dimensions of CBE, and their subsequent effects on consumers' ongoing search behavior and repurchase intention, thus enhancing the understanding of CBE. For marketers, this study offers insights for developing effective marketing strategies to foster CBE, driving consumers' ongoing search behavior and repurchase intention.

The structure of this paper is as follows. Literature that is related to CCI, CBI and CBE is first reviewed. The discussion of cognitive, affective, and behavioral engagement with a brand provides the theoretical background used to develop hypotheses and for the guiding theoretical model. The research methodology is then described, followed by the results of the study and their discussion. Finally, the theoretical and managerial implications, along with the study's limitations, are discussed to conclude the paper.

2. Theoretical background and hypotheses development

2.1. Service-dominant logic (S-D logic)

The concept of CP stems from S-D logic, an important perspective in marketing research that provides a service-based interpretation of exchange (Kamboj, 2019; Pires et al., 2015; Vargo and Lusch, 2008). According to S-D logic, consumers may be in a position to co-create value with businesses relative to their tangible and intangible offers, at the boundary between producers and consumers (Vargo and Lusch, 2008). In particular, CP is manifested by CCI and CBI, where the former involves the sharing of experiences and opinions about brands and their offerings amongst consumers, and the latter refers to consumers' involvement in giving feedback to brands for improvements, along with their involvement in product development processes (Heinonen et al.,

2018; Luo et al., 2015; Tajvidi et al., 2017). Hence, from a S-D logic perspective, consumers are regarded as value co-creators and implementers of value creation with brands (Vargo and Lusch, 2008). Consumers are the source of valuable information, ideas and knowledge for brands, further justifying the importance of facilitating the two forms of CP in the process of value creation (Djelassi and Decoopman, 2013), especially for how CCI and CBI drive positive consumer behavioral intentions (Heinonen et al., 2018).

The application of S-D logic is enhanced by social-media development, with brands investing substantial effort to facilitate CCI and CBI in order to collect feedback and ideas from consumers for improving their goods and services (Cheung et al., 2020c; Djelassi and Decoopman, 2013; Luo et al., 2015). Reportedly, most businesses utilize social-media platforms, such as Facebook, Instagram, YouTube, WeChat and Weibo, to involve consumers as part of a strategy to improve their brand image (Cheung et al., 2020a; Luo et al., 2015). For example, Lancôme developed its own social-media brand community – the Rose Beauty Community – to facilitate CCI and CBI in order to receive consumer feedback and thus improve the quality of its offerings (Heine and Berghaus, 2014). Similarly, Xiaomi, a leading smart-technologies brand, adopts a fan-centric approach to interact with their consumers so as to strengthen their consumer-brand relationship (Shih et al., 2014), whilst marketers of smartwatches, such as Apple Watch and Samsung Gear, create social-media brand communities for consumers to share health-related information with each other, thereby strengthening consumers' involvement and knowledge of the focal brands (Pinto and Yagnik, 2017). Hence, the exchange of skills and knowledge between consumers, incorporating the consumers' contribution of ideas to brands on social-media platforms, has become one of the most critical elements for business success. It is, therefore, justified to examine how to facilitate such exchanges by facilitating the two forms of CP – CCI and CBI – on social-media platforms.

2.2. Consumer participation (CP)

CP is recognized as a critical factor in attaining competitive advantage that involves both consumers and brands in the product-exchange process (Revilla-Camacho et al., 2015). Accordingly, CP refers to the extent of inputs - such as time, knowledge, effort, or any other resources (Dong et al., 2015) - being invested by consumers in creating value for the goods and services offered by focal brands (Cheung et al., 2020b; Dabholkar, 2015). Prime examples include task performance, information and knowledge sharing, as well as facilitation of desirable behaviors (Mustak et al., 2016). Consumers perform tasks, such as voting tasks initiated by brands on social-media platforms and tasks in social-media games, as part of the communication process in connecting with focal brands (Pacauskas et al., 2018; Yang et al., 2017). In the case of information and knowledge sharing, consumers share their knowledge and experiences in using goods and services with their like-minded peers on social-media platforms, in order to improve their own knowledge and to help others (Frasquet-Deltoro and Lorenzo-Romero, 2019). Considering the facilitation of desirable behaviors, consumers share their needs, requests, and suggestions concerning the quality of goods and services with brand managers, aiming to improve brands' performance (Chan et al., 2010).

It is apparent that the three examples of CP discussed earlier are interwoven within consumers' behaviors when participating actively in brand-related activities, as reflected by CCI and CBI on social-media platforms. Most studies acknowledge the crucial role of these two forms of CP in boosting brand performance, for higher consumer satisfaction (Dong et al., 2015), higher perceived value (Carlson et al., 2018) and stronger brand trust (Kamboj, 2019). Other studies also reveal that consumers who are involved in CCI and CBI have lower brand-switching intention (Revilla-Camacho et al., 2015) and are less responsive to price increases, all of which contribute to brand loyalty and competitive advantage (Mustak et al., 2016).

Prior studies examine CP's overall impact on positive business outcomes, exploring the importance of either CBI or CCI, whilst the integrated knowledge about the importance of both CBI and CCI is limited. CBI and CCI reflect consumers' differential participative behaviors. The former is conceptualized as consumers' participative efforts for brand improvement. The latter is understood as consumers' participative behaviors outside the sphere of brands (Carlson et al., 2019; Chen et al., 2018; Islam et al., 2019). The differences between CBI and CCI justify the need for better understanding their collective influences, as well as their relative importance, in brand-building processes (Chen et al., 2018).

2.3. Consumer-consumer interaction (CCI)

CCI refers to interpersonal interactions between consumers, being manifested by consumers' involvement in information and knowledge sharing to support their peers facing challenges in using goods and services (Heinonen et al., 2018; Mustak et al., 2016). In this study, CCI is conceptualized as a consumer's exchange of shopping advice about a brand or sharing of product information or recommendations with other consumers on a social-media platform. The marketing literature indicates that CCI empowers consumers by encouraging their sharing of knowledge and experiences in using goods and services with peers, in order to help them fulfill specific objectives and tasks (Heinonen et al., 2018), while facilitating brands access to potential consumers (Luo et al., 2019).

With the advancement of social media, marketers invest significant effort to facilitate CCI as a means to create value for brands (Jaakkola and Alexander, 2014). This is because, in the process of CCI, consumers interact with other consumers on social-media brand communities, such as Facebook pages, forums, and blogs, to share news and to make recommendations about goods and services (Abdul-Ghani et al., 2019). They also help their peers solve problems in using the goods and services. Prime examples including guidelines, experience sharing, and useful hints provided by consumers on social-media brand communities (Heinonen et al., 2018). Such knowledge sharing and helping behaviors are valuable for brands, because they strengthen the consumer-consumer relationship on social-media brand communities, driving consumers' brand commitment and brand loyalty (Luo et al., 2019).

Scholarly work has examined the importance of CCI in building relationships between consumers, and associated effects, and how to foster 'consumers' involvement in CCI on an ongoing basis. For example, Abdul-Ghani et al. (2016) argued that consumers who are passionate about CCI, are willing to share their consumption experiences to support their like-minded peers' decision-making processes, thus strengthening the relationship between consumers in the social-media brand communities, as well as increasing their brand knowledge. In other examples, Luo et al. (2019) acknowledged the importance of positive CCI in driving consumers' affection and brand loyalty, and Frasquet-Deltoro et al. (2019) recognized CCI's importance in driving consumer-brand relationships, as reflected in consumers' feedback, provision of help and recommendations, strengthening their intention to further participate in CCI activities.

Nevertheless, in spite of the scholarly work that has been undertaken in the CCI area, the focus of most empirical studies is on the quality of the interactive communication, as manifested by whether the CCI is friendly, harmonious and cooperative (Huang and Hsu, 2010; Luo et al., 2019), overlooking the importance of CCI's information and knowledge-exchange components (Heinonen et al., 2018). This explains why the importance of information and knowledge sharing amongst consumers in evoking consumers' emotional responses, and the relative importance of CCI in comparison to CBI in driving consumers' behavioral responses, is yet to be explored.

2.4. Consumer-brand interaction (CBI)

CBI is manifested by consumers' involvement in the provision of feedback and suggestions to brands for quality improvement, co-designing activities (Koay et al., 2020; Ramaswamy and Ozcan, 2016), along with ideas for new goods and services (Dong et al., 2015; Islam et al., 2019). This study defines CBI as the interaction between consumers and brands in relation to the development of new goods and services and involvement in collaborative problem-solving. The literature advances CBI as an important driver in strengthening the relationship between consumers and brands (Carlson et al., 2019), subsequently developing consumers' positive behavioral intention, such as purchase intention (Seifert and Kwon, 2019), referral intention (Algharabat et al., 2018), and consumer commitment (Kamboj, 2019).

Recognition of the role of CBI in boosting consumer-brand relationship provided numerous opportunities for developing and investigating a holistic framework for in-depth understanding of the interaction. For example, Nysveen and Pedersen (2014) argued that CBI is a significant predictor of consumers' satisfaction and loyalty, strengthening their positive attitude towards the brand. Revilla-Camacho et al. (2015) recognized the importance of CBI in stimulating strong and positive consumer-brand relationship outcomes, which reduce brand-switching behavior. Similarly, Cossío-Silva et al. (2016) acknowledged the importance of CBI in driving consumers' attitudinal loyalty. Carlson et al. (2019) examined the concept of CBI in social-media platforms, recognizing CBI's role in building consumer-brand relationships, strengthening brand loyalty. Additional to building a significant and positive consumer-brand relationship through boosting brand trust and brand commitment, Kamboj (2019) found that CBI also stimulates word-of-mouth intention. These findings from the marketing literature suggest that CBI plays a considerable role in evoking positive perception of the brands throughout the process of sharing ideas and suggestions, and subsequently building consumer-brand relationship, as manifested by CBE.

2.5. Consumer-brand engagement

Conceptualized as a psychological state that involves consumers' passion for a brand based on the strength of the consumer-brand relationship (Brodie et al., 2013; Hollebeek et al., 2014, 2016), CBE has received extensive scholarly attention in recent years (Cheung et al., 2020b; Hollebeek et al., 2016). The general agreement is that CBE is a multi-dimensional construct with cognitive, emotional, and behavioral dimensions (Bowden, 2009; Hollebeek et al., 2020; Dwivedi, 2015; Islam and Rahman, 2016). Its focus is on how the specific levels of cognitive, emotional, and behavioral activities that take place between consumers during the interactions with a brand (Hollebeek, 2011) can drive positive business outcomes (Bowden, 2009), such as purchase intention, brand loyalty and brand commitment (Cheung et al., 2020b; Leckie et al., 2016).

Extensive efforts have been devoted to examining CBE's conceptualization and measurement (Brodie et al., 2011; Dwivedi, 2015; Hollebeek et al., 2014); yet, understanding of the antecedents and consequences of the CBE dimensions, especially for the relationship between CP and the CBE dimensions (Heinonen et al., 2019; Hollebeek et al., 2016; Li et al., 2020), remains limited to the association between constructs related to consumers' psychological state, such as enduring involvement (Hollebeek et al., 2014; Harrigan et al., 2018), brand attachment (Kumar and Nayak, 2019), and social presence (Algharabat et al., 2018) with CBE. Further empirical research is needed to strengthen the theoretical framework underpinning CBE, focusing on how the two forms of CP, namely CBI and CCI, drive CBE dimensions; including cognitive, affective, and behavioral engagement with a brand (Hollebeek et al., 2014, 2016; Islam et al., 2019). Each of these is discussed next, leading to the development of hypotheses for this study.

2.6. Cognitive engagement

Cognitive engagement with a brand refers to consumers' concerns with or interests derived from focal brands as a result of their interaction with those brands (Hollebeek et al., 2014). Prior research confirms the associations between CBI and cognitive engagement, whereby consumers who actively interact with brands are more likely to exert cognitive efforts in analyzing and understanding the available information in greater detail (Cheung et al., 2020a; Hepola et al., 2017). Using social-media platforms, such as Facebook, Instagram, and WeChat, consumers seek useful and relevant information on the brands of interest, interact with marketers, and share opinions with like-minded peers (Muntinga et al., 2011). As a result, dynamic online communities, such as Facebook communities, WeChat pages, and brand-related forums, are created by brands and operated by both brands and consumers (Algharbat et al., 2020). These interactions are participatory in nature, involving raising opinions, sharing knowledge, and developing ideas for improvement, thus being regarded as drivers of cognitive engagement (Algharbat et al., 2020; Cheung et al., 2020b).

Marketing research acknowledges the importance of both CCI and CBI in driving cognitive engagement. CCI involves information and knowledge sharing amongst consumers using social-media brand communities, encouraging consumers to strengthen their brand knowledge in order to increase their contribution to those brand communities (Abdul-Ghani et al., 2019; Frasquet-Deltoro et al., 2019; Mustak et al., 2016).

Tajvidi et al. (2017) recognize CCI's role in driving consumer-brand relationships, suggesting that consumers are willing to learn more about new developments and to receive meaningful information about their focal brands in the process of CCI in social-media brand communities. Heinonen et al. (2018) support CCI's importance in driving consumers' intention to understand more about the focal brands, recommending that marketers encourage consumers to be involved in knowledge sharing and problem solving, so as to strengthen their cognitive understanding of those brands. More recently, Cheung et al. (2020b) confirm CCI's importance in driving consumers' cognitive efforts seeking to understand more about the focal brands, suggesting consumers' willingness to invest cognitive efforts in the processes of experience sharing in social-media brand communities. Overall, the conclusion is that CCI involves consumers' sharing of information, knowledge, and experiences, such that consumers are motivated to invest more cognitive efforts to improve their brand knowledge in order to contribute to social-media brand communities.

The literature also posits the importance of CBI in driving cognitive engagement. Leckie et al. (2016) found that highly involved consumers actively contributed their knowledge and ideas to the focal brands for their improvement, driving cognitive engagement. These findings were supported by Carvalho and Fernandes (2018), further suggesting that highly involved consumers are motivated to publish information and knowledge about brands on social-media platforms in order to strengthen social-media brand community members' brand knowledge, thus demonstrating CBI's role as a driver of consumers' cognitive engagement. Algharbat et al. (2020) also found support for Leckie et al. (2016)'s findings, affirming the positive relationship between CBI and cognitive engagement, and suggesting that marketers should encourage consumers to actively share their ideas with brands. Finally, Cheung et al. (2020d) found support for the importance of CBI, as manifested by consumers' intention to share their ideas, opinions, and suggestions for brand improvement, strengthening their interest to learn more about the focal brands. Summing up, the literature suggests that both CCI and CBI reflect a deeper level of brand-related cognitive elaboration (Carlson et al., 2019; Heinonen et al., 2018; Hollebeek et al., 2014), grounding hypotheses 1 and 2 below.

H1. CCI has a positive impact on cognitive engagement (with the brand)

H2. CBI has a positive impact on cognitive engagement (with the brand)

2.7. Emotional engagement

Emotional engagement with the brand refers to the extent of positivity amongst consumers in a particular interaction between consumers and the brand (Hollebeek et al., 2014). Hence, emotional engagement is reflected on consumers' intensity of passion and dedication (Dwivedi, 2015), and is driven by a series of interactive communications or activities initiated by brands that facilitate CP (Cheung et al., 2020b; Merrilees, 2016). This is why scholars posit the importance of CP in stimulating emotional engagement amongst consumers by enabling the process and outcomes of control over consumption, useful in constructing consumer enjoyment (Revilla-Camacho et al., 2015; Woisetschläger et al., 2008). Arguably, when consumers engage in CP activities on social-media platforms, including both CCI and CBI, they are sharing their experiences with like-minded users on social-media brand communities, as well as providing ideas and feedback to brands for improvement (Carlson et al., 2019; Ng, 2014; Tajvidi et al., 2017). The exchanging of knowledge within the brand's online community is meaningful in providing achievements for consumers, facilitating their self-fulfillment and satisfaction, and subsequently evoking positive emotions (Carlson et al., 2019; Frasquet-Deltoro et al., 2019).

As noted earlier, CCI involves consumers' sharing of information, experiences, and knowledge with like-minded peers, strengthening brand recognition amongst peers on social-media brand communities. Indeed, CCI inspires members in social-media brand communities to acquire information, improving their experiences in using goods and services, and solving their product-usage problems; thus, information providers are commonly recognized by members and brands as enthusiastic experts on social-media brand communities (Heinonen et al., 2018). Such recognition is meaningful for these enthusiastic consumers, strengthening their sense of self-fulfillment and self-achievement, thereby evoking positive emotions for the focal brand(s). For example, Rihova et al. (2018) argue the importance of CCI in evoking consumers' positive emotions, suggesting that marketers encourage consumers to share their positive experiences, useful insights, and advice with their like-minded peers. Heinonen et al. (2018) posit that CCI helps experienced consumers to gain reputation and social approval from other members in the social-media brand communities, thus strengthening their positive emotions, including enjoyment, arousal, and excitement. More recently, Kim et al. (2019) conceptualized CCI as an environmental stimulus in evoking consumers' emotions, arguing that CCI plays a considerable role in driving consumers' pleasures and passions. Luo et al. (2019) found similar results, suggesting that CCI is a predictor of consumers' positive affective response, including excitement and enjoyment.

The literature supports a positive association between CBI and emotional engagement. For example, Liu et al. (2018) assert the importance of CBI in stimulating emotional engagement, suggesting that consumers' perceptions of the focal brands are strengthened when CBI on social-media brand communities is perceived to be honest, straightforward, and trustworthy. Carlson et al. (2019) also found similar results, suggesting that CBI is influential in driving emotional value, in turn strengthening performance of the focal brands. More recently, Algharabat et al. (2020) confirm the positive relationship between CBI and consumers' emotional engagement, suggesting marketers to encourage consumers' contribution in their knowledge and ideas, in order to strengthen consumers' positive emotions and perceptions towards the focal brands. Summing up, the two forms of CP – CCI and CBI – play a considerable role in driving consumers' enjoyable experiences, building affections for the focal brands. Thus, it is hypothesized that:

H3. CCI has a positive impact on emotional engagement (with the brand)

H4. CBI has a positive impact on emotional engagement (with the brand)

2.8. Behavioral engagement

Behavioral engagement with a brand refers to the effort, energy, and time invested in interactions between consumers and brands (Hollebeek et al., 2014), being inextricably linked to interactions between consumers and brands on social-media brand communities (Cheung et al., 2020b; Liu et al., 2018; Maslowska et al., 2016). In investing their time, energy, and efforts, consumers aim to co-create value for improving the brand (Hollebeek et al., 2014; Maslowska et al., 2016). In particular, passionate consumers are willing to share their experiences to help and support their like-minded peers on social-media brand communities, strengthening their brand commitment. Therefore, these consumers are more willing to recommend the focal brands to others and consider the focal brands as first priority in their decision-making processes (Kamboj, 2019).

Empirical studies have affirmed the importance of CCI and CBI in driving behavioral engagement. For example, Liang et al. (2011) recognized CCI's importance as a driver of consumers' intention to keep using the social-media platforms to receive information and to share with others, forwarding CCI as a driver of consumers' behavioral intention. Chen et al. (2018) argued that CCI plays a substantial role in driving consumers' intention to comment, review, and recommend brand-related products on social-media brand communities. More recently, Kim et al. (2019) found that CCI influences consumers' continuance intention to create useful contents to help other users. Cheung et al. (2020b) support the importance of CCI in driving consumers' behavioral engagement, recommending marketers to develop interactive social-media platforms to support CCI, thus motivating consumers to invest their efforts to co-create value for brands.

Empirical findings also posit the importance of CBI in driving consumers' behavioral engagement. Solem (2016) confirmed the importance of CBI in driving consumers' loyalty intentions, including the intention to consider the focal brand as the first choice in their decision-making processes, as well as the intention to provide positive referrals for the focal brand. Carlson et al. (2019) found similar results, confirming that CBI drives consumer-brand relationships, strengthening consumers' attitudinal loyalty, as manifested by their intention to consider the focal brand as the first choice in their decision-making processes, and continuance intention in sharing their ideas on social-media brand communities. More recently, Algharabat et al. (2020) confirmed the importance of CBI in driving consumers' behavioral engagement, suggesting that marketers encourage consumers to provide their ideas and suggestions on social-media brand communities to co-create value for brands. Summing up, CCI and CBI reflect consumers' intention to share their knowledge and experiences for value co-creation on social-media brand communities, being regarded as indispensable components of behavioral engagement. This provides the grounding for the hypotheses below:

H5. CCI has a positive impact on behavioral engagement (with the brand)

H6. CBI has a positive impact on behavioral engagement (with the brand)

2.9. Ongoing search behavior

Ongoing search behavior refers to consumers' external search behavior that is not related to their immediate purchasing needs (Bloch et al., 1986). In other words, ongoing search behavior is conceptualized as consumers' regular search for information about products, being manifested by their attention and efforts involved in browsing catalogues, advertisements, and websites related to their interested products (Cheung et al., 2020d). Consumers are engaged in ongoing search

behavior when they subscribe to magazines related to their interested brands, invest their time to read brand-related information available on various media channels, and visit stores to get brand-related information that is not linked with their immediate purchases need (Cheung et al., 2020c; McColl-Kennedy and Fetter, 1999; Stevens and Rosenberger, 2012). Prior studies posit the role of CBE in driving consumers' ongoing search behavior, suggesting that ongoing search behavior is driven by consumers' intrinsic motivation, as manifested by their intentions to exert their cognitive efforts to search for brand-related information (Beatty and Smith, 1987; Bloch et al., 2009), as well as consumers' pleasure and enjoyment resulting from consumer-brand interactions (Cheung et al., 2020c). For example, sports fans (consumers) will use a variety of media and expend considerable cognitive effort to stay informed about their team (focal brand) during the season due to the continually changing sports context featuring weekly results, injuries, judiciary rulings, and other match- and team-related events (Stevens and Rosenberger, 2012).

Recent studies have found a positive relationship between CBE and ongoing search behavior, suggesting that consumers with high level of cognitive engagement, emotional engagement and behavioral engagement are more willing to search for brand-related information in an ongoing basis (Cao et al., 2020; Cheung et al., 2020c; Eigenraam et al., 2018). For instance, Eigenraam et al. (2018) argued that highly engaged consumers are motivated to process and elaborate brand-related information, spending considerable efforts on using the focal brands, as well as interacting with brand managers and other users on social-media platforms, and thus they are involved in regular ongoing search behavior. Carlson et al. (2019) found the similar results, suggesting that highly engaged consumers enjoy searching for brand-related information on a regular basis. More recently, Cao et al. (2020) found that highly engaged consumers are willing to browse videos, graphics, and posters on social-media platforms in order to search for brand-related information in an ongoing basis. Cheung et al. (2020c) confirmed the importance of CBE in driving ongoing search behavior, suggesting that highly engaged consumers are willing to spend considerable resources to interact with their focal brands, in turn driving their ongoing search behavior. Overall, recent marketing literature suggests the importance of CBE in driving ongoing search behavior, thus justifying the following hypotheses:

H7. Cognitive engagement (with the brand) has a positive impact on ongoing search behavior

H8. Emotional engagement (with the brand) has a positive impact on ongoing search behavior

H9. Behavioral engagement (with the brand) has a positive impact on ongoing search behavior

2.10. Repurchase intention

Inextricably intertwined with CBE, repurchase intention represents the intention amongst consumers to buy the same goods and services offered by the same brand on more than one occasion (Cheung et al., 2020b; Hellier et al., 2003). Prior studies have found a positive link between CBE and consumers' loyalty behaviors, including purchase and repurchase intention; since highly engaged consumers are likely to have a stronger and more positive belief about the brands, they have a stronger repurchase intention (Islam et al., 2019; Kumar and Nayak, 2019). For instance, Leckie et al. (2016) found that engaged consumers are more likely to have positive feelings (emotional engagement) when they use the goods and services offered by the focal brand, strengthening their intention to repurchase products offered by the same brand in the future. Similarly, Harrigan et al. (2018) established the importance of cognitive engagement, emotional engagement, and behavioral engagement in driving consumers' brand usage intention. More recently, Kumar and Nayak (2019) posited that highly engaged consumers are

more likely to spend considerable resources in comparing the chosen brands with other competing brands when intending to repurchase. Algharabat et al. (2020) found that engaged consumers are more willing to spend their time and resources interacting with others on social-media brand communities, which strengthens their intentions to use the same brand in the future.

Overall, the marketing literature suggests that highly engaged consumers are more willing to invest cognitive efforts in understanding more about the focal brand, have a higher level of enjoyment during the interactions with the focal brand, and are more willing to spend their resources in consumer-brand interactions (Algharabat et al., 2020; Cheung et al., 2020c; Leckie et al., 2016). This supports the importance of cognitive engagement, emotional engagement, and behavioral engagement in driving repurchase intention, providing the grounds for the following hypotheses:

H10. Cognitive engagement (with the brand) has a positive impact on repurchase intention

H11. Emotional engagement (with the brand) has a positive impact on repurchase intention

H12. Behavioral engagement (with the brand) has a positive impact on repurchase intention

Flowing from the discussion leading to the development of hypotheses, Fig. 1 presents the research model that serves as the basis for this study, seeking to examine the importance of CCI and CBI from a service-dominant logic (S-D logic) lens. This model proposes that CCI and CBI through social-media platforms influence the three CBE dimensions, including cognitive, emotional, and behavioral engagement, subsequently driving consumers' ongoing search behavior and repurchase intention (see Fig. 2).

3. Methodology

3.1. Data collection

Using a purposive sampling technique, this study employed a self-administered online survey using the Qualtrics platform to collect data from Malaysian consumers. The targeted respondents were experienced social-media users with a Facebook account who had visited the brand pages of smartphones (see section 4.1 for sample profile information). The smartphone was chosen as the focal product of this study because it is regarded as a high-involvement product that requires interaction between consumers and brands, including both CBI and CCI, to continuously advance knowledge and skills through experience sharing (Chen et al., 2018; Cheung et al., 2020b; Vivek et al., 2012). In particular, consumers are motivated to seek information about the usage of smartphones, as well as to solve technological problems and obtain updated information about smartphones via CBI and CCI on social-media platforms, especially for Facebook brand pages. Therefore, smartphones are regarded as an appropriate focal product in studies related to consumer participation and engagement (Cheung et al., 2020a; Zhang et al., 2017).

Facebook was selected as focal platform reflecting consumers' participative behaviors, because Facebook is acknowledged as the most popular social-media platform, with more than 2.2 billion global users, and 25.95 million users in Malaysia (Statista, 2021a; b). Thus, Facebook is regarded as a widely recognized platform to facilitate consumer participation, including both CBI and CCI, by sharing firm-initiated information, along with encouraging knowledge and experience sharing via commenting and sharing on brand pages (Chen et al., 2018; Dessart et al., 2019; Lee et al., 2020). Additionally, when comparing with other popular social-media platforms, Facebook brand pages create communities for consumers to interact and share experience, whilst Instagram facilitates digital influencers to promote products via picture sharing, and YouTube is regarded as a video sharing platform for vloggers to

Fig. 1. Research model.
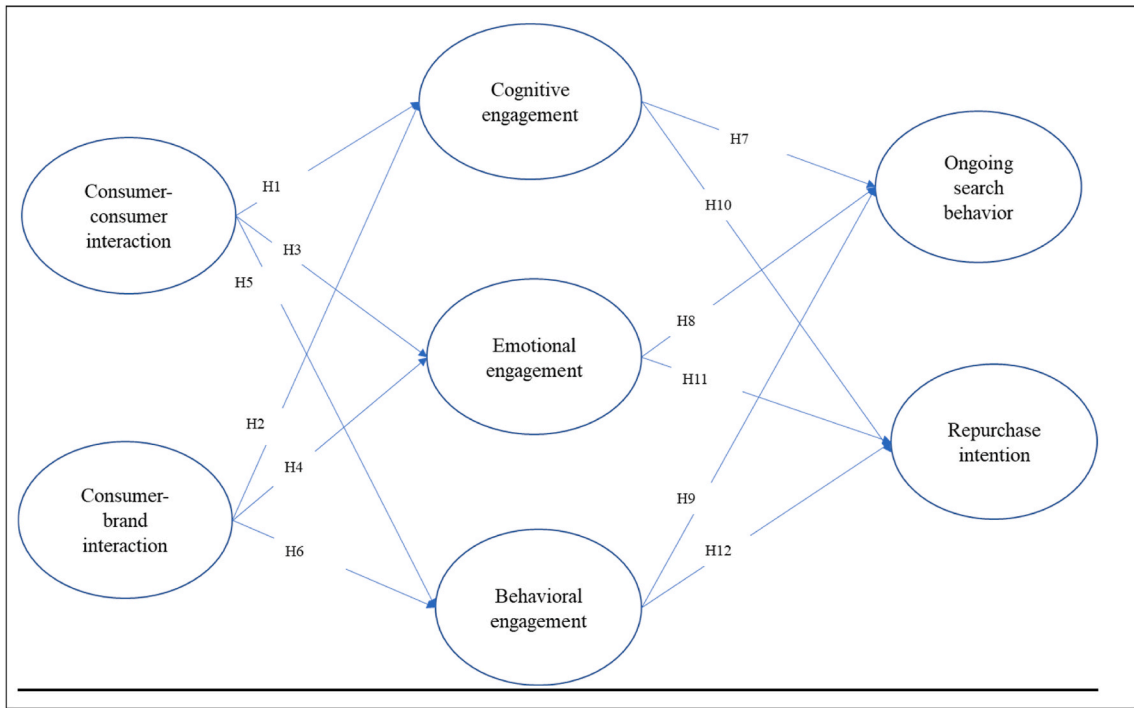

Note: **Path significant at the .001 level.   ***Path significant at the .000 level.
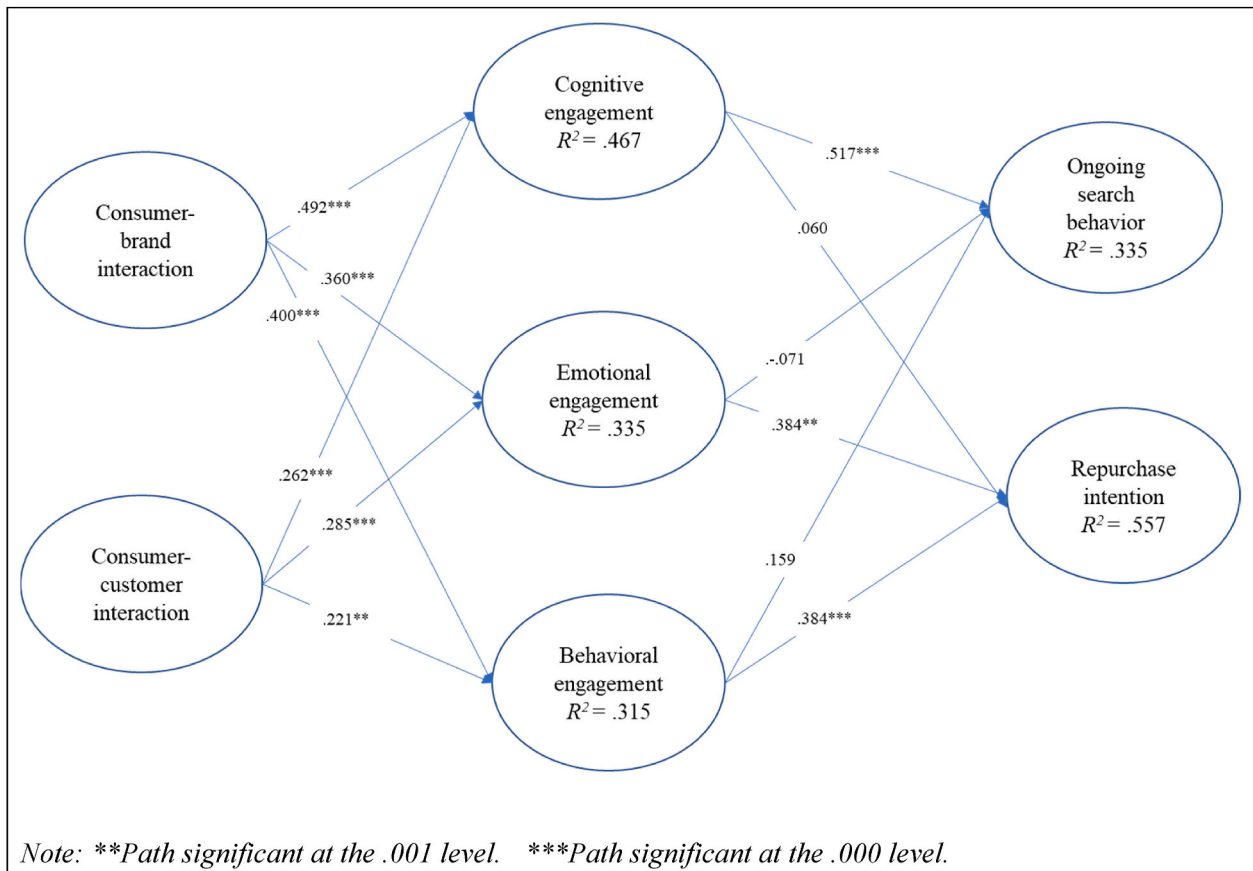
Fig. 2. Results of the theoretical model in this study
Note: **Path significant at the 0.001 level. ***Path significant at the 0.000 level.

share information and promote products (Dessart et al., 2019; Jin and Ryu, 2020; Lee and Watkins, 2016; Lee et al., 2020). On this basis, it is concluded that Facebook is the most recognized platform to facilitate both CBI and CCI in user-experience sharing for value co-creation (Chen et al., 2018; Dessart et al., 2019). As such, smartphones and Facebook were chosen as the contextual foci of this study.

To reach the targeted respondents, the research team posted a questionnaire link and QR code on smartphone-brand Facebook pages targeted at Malaysian consumers. In order to ensure the validity of this study, screening questions were used to ensure the relevancy of respondents. Respondents without experience in using social media and smartphones, or without experience in visiting brand pages on social media, were excluded from this study. The online survey took approximately 10 min to complete and remained available for completion for 12 weeks from January to March 2020.

3.2. Measurement items

This study used seven-point Likert scales (1 = strongly disagree, 7 = strongly agree) and adapted measurement items from prior studies for the constructs. Ten items from Liu et al. (2018) were used to assess the three CBE dimensions as first-order constructs. Of these, three items measured cognitive engagement, four items measured emotional engagement, and three items measured behavioral engagement. Next, four items were adapted from Nysveen and Pedersen (2014) to measure CBI, whilst three items were adapted from Tajvidi et al. (2017) to measure CCI. As for behavioral outcomes, this study adapted three items from Wu et al. (2014) to measure repurchase intention and three items from Cheung et al. (2020c) to measure ongoing search behavior. To control for potential bias from respondents' familiarity with the focal product, several control variables were included in the research model namely: smartphone frequency of usage, average spending on smartphones, duration of using Facebook, and respondents' age to control for respondents' heterogeneity.

3.3. Data analysis

Partial least squares structural equation modelling (PLS-SEM) approach was used to analyze the data through the 5000-bootstrap procedure of SmartPLS v3.2.9 (Ringle et al., 2015). PLS-SEM was considered appropriate because of its unique advantages: (1) suitable for studies with a large number of constructs; (2) operates without strict restrictions on normal distributions of the collected data; (3) appropriate for studies aiming to identify key predictors in a research model (Hair et al., 2017). Thus, we followed recent studies in consumer-brand engagement (e.g. Cheung et al., 2020b; Harrigan et al., 2018; Koay et al., 2020) to use PLS-SEM to perform data analysis.

4. Results

4.1. Respondent profile

The research team invited 546 consumers to participate in the online survey, of which 392 agreed to participate. Of these, responses from 45 inexperienced respondents in visiting Facebook brand pages were discarded, along with 32 other incomplete surveys. This resulted in 315 useable responses for the data analysis.

All respondents were over 18 years old, owned a smartphone, and had experience in visiting Facebook brand pages at the time of data collection. Respondents were female (69.5%), aged 18–25 years (69.4%), with a bachelor's degree (72.7%), and working full-time (42.4%). A majority of respondents (60.6%) checked their social-media account an average of 6–10 times per day.

4.2. Measurement model results

This study adopted a two-stage approach, as recommended by Hair et al. (2017), to analyze the data using PLS-SEM with the 5000-bootstrap procedure, path weighting and two-tailed tests. Firstly, the

Table 1
Outer model results.

Construct	Loading	t-value	Alpha	Composite reliability
Consumer-consumer interaction			.874	.921
I am willing to ask my friends on social-media platforms to provide me with their suggestions about Brand X before shopping.	.898	72.880		
I am willing to share information on products about Brand X with my friends on social-media platforms.	.915	62.498		
I am willing to recommend products of Brand X to my friends on social-media platforms.	.863	32.364		
Consumer-brand interaction			.910	.937
I often express my personal needs to Brand X on social-media platforms.	.879	44.452		
I often find solutions to my problems together with Brand X on social-media platforms.	.912	75.281		
I am actively involved when Brand X develops new products on social-media platforms.	.873	37.737		
Brand X encourages consumers to create solutions together on social-media platforms.	.884	52.659		
Cognitive engagement			.924	.952
Using this brand get me to think about Brand X.	.933	87.368		
I think about Brand X a lot when I am using it.	.945	100.338		
Using this brand stimulates my interest to learn more about Brand X.	.917	62.745		

Construct	Loading	t-value	Alpha	Composite reliability
Emotional engagement			.906	.941
I feel very positive when I use Brand X.	.905	54.372		
Using Brand X makes me happy.	.939	94.685		
I am proud to use Brand X.	.908	52.187		
Behavioral engagement			.866	.937
I spent a lot of time using Brand X compared with other brands.	.934	79.102		
I use Brand X the most.	.944	113.413		
Ongoing search behavior			.807	.885
I am interested in browsing catalogs, advertisements and articles about smartphones.	.816	28.921		
I would be interested in reading information about how smartphones can be used.	.881	49.654		
I have compared attributes and characteristics among firms that provide smartphone products.	.847	33.529		
Repurchase intention			.921	.950
The probability that I will use Brand X again is high.	.930	77.403		
I consider myself a loyal consumer of Brand X.	.910	48.151		
If I had to do it over again, I would choose Brand X	.948	106.756		

measurement of the outer model was assessed by evaluating the internal consistency through Cronbach's alpha and composite reliability, whereby all values were ≥.807, indicating a satisfactory level of internal consistency. Additionally, all item loadings were ≥0.818 and significant, therefore well above the recommended 0.70 threshold (see Table 1). The convergent validity of the model was assessed using the Average Variance Extracted (AVE). All AVE scores were ≥0.720, therefore comfortably above the recommended 0.50 threshold, which confirmed the convergent validity (see Table 2). Additionally, discriminant validity was satisfied using the Fornell and Larcker (1981) criterion, with all AVE square roots larger than the corresponding correlations (Hair et al., 2017). Discriminant validity was further verified using the more conservative Heterotrait and Monotrait (HTMT) ratio (Henseler et al., 2015). The values from the HTMT ratio for all constructs in the research model were less than the threshold value of 0.90 (Hair et al., 2017), which further confirmed the discriminant validity of this study (see Table 3).

Multicollinearity was examined by checking the Variance Inflation Factor (VIF) values for all constructs. The results revealed that VIF values fell below the common 5.0 threshold (Hair et al., 2017), suggesting that multicollinearity was not a concern.

As this study collected self-reported data from a single source, resulting in the potential threat of common method bias (CMB). Thus, CMB was checked by conducting Harman's single-factor test (Podsakoff and Organ, 1986). The single largest factor accounted for 48.48% of the variance, hence lower than the 50% threshold, indicating that CMB was not a concern. Notwithstanding, Harman's single-factor test has been criticised because of its lack of sensitivity, justifying testing CMB by using a PLS-SEM technique (Liu et al., 2018; Parihar and Dawra, 2020). CMB was checked using the full collinearity assessment suggested by Kock and Lynn (2012). As presented in Table 4, the results revealed that all VIF values were below the recommended 3.3 when a dummy variable was regressed against all the variables in the research model (Kock and Lynn, 2012). This suggests that CMB was not an issue in this study.

4.3. Structural model results

The inner structure of the model was assessed by examining the *t*-values, standardized coefficient beta values and effect size (f^2 value) and coefficient of determination (R^2 value) to investigate the hypotheses of this study. Results from the data were found to support H1, H2, H3, and H4 (see Fig. 1). In particular, the impact of CCI on cognitive engagement (β = 0.262, p = .000), emotional engagement (β = 0.285, p = .000), and behavioral engagement (β = 0.221, p = .001) were strong and significant, supporting H1, H3, and H5. In addition, the impact of CBI on cognitive engagement (β = 0.492, p = .000), emotional engagement (β = 0.360, p = .000), and behavioral engagement (β = 0.400, p = .000) were strong and significant, thus supporting H2, H4, and H6.

Regarding the outcomes of the three CBE dimensions, the impact of

Table 2
Discriminant validity of measurement model: Fornell and Larcker (1981) criterion.

	CBI	CCI	BEH	EMO	CON	OSB	RPI	AVE
CBI	**.887**							.787
CCI	.602	**.892**						.796
CON	.533	.461	**.939**					.868
EMO	.532	.502	.784	**.917**				.842
BEH	.650	.559	.668	.749	**.932**			.882
OSB	.504	.540	.446	.436	.568	**.849**		.720
RPI	.453	.337	.699	.699	.583	.282	**.930**	.864

Note: Diagonals represent the square root of the AVE while correlations between constructs are represented by the off-diagonals, where CBI = consumer-brand interactions, CCI=Consumer-consumer interactions, CON = Cognitive engagement, EMO = Emotional engagement, BEH = Behavioral engagement, OSB = Ongoing search behavior, RPI = Repurchase intention.

Table 3
Discriminant validity of measurement model: HTMT ratio.

	CBI	CCI	BEH	EMO	CON	OSB	RPI
CBI							
CCI	.673						
CON	.594	.520					
EMO	.580	.551	.886				
BEH	.702	.611	.746	.817			
OSB	.576	.626	.525	.500	.646		
RPI	.490	.366	.780	.766	.632	.319	

Note: HTMT values < 0.90 indicate a satisfactory result for discriminant validity (Hair et al., 2017), where CBI = consumer-brand interactions, CCI=Consumer-consumer interactions, CON = Cognitive engagement, EMO = Emotional engagement, BEH = Behavioral engagement, OSB = Ongoing search behavior, RPI = Repurchase intention.

Table 4
Full collinearity assessment.

Variable	Random Dummy Variable
Consumer-brand interaction	1.802
Consumer-consumer interaction	1.426
Behavioral engagement	1.044
Emotional engagement	2.035
Cognitive engagement	2.063
Ongoing search behavior	1.266
Repurchase intention	1.704

cognitive engagement (β = 0.517, p = .000) on ongoing search behavior was positive and significant. However, the impact of emotional engagement (β = −0.071, p = .456) on ongoing search behavior was negative and non-significant, whilst the impact of behavioral engagement (β = 0.159, p = .082) on ongoing search behavior was positive and non-significant. Hence, H7 was supported, but H8 and H9 were rejected. Furthermore, the impact of emotional engagement (β = 0.352, p = .001) and behavioral engagement (β = 0.384, p = .000) on repurchase intention were positive and non-significant, whilst the impact of cognitive engagement (β = 0.060, p = .394) on repurchase intention was non-significant. Hence, H11 and H12 were supported, and H10 was rejected.

The impacts of the control variables, including age, smartphones frequency of usage, average spending on smartphones, and duration of using Facebook on the two endogenous constructs, were weak and non-significant.

This study also assessed the effect sizes (f^2 value) of the paths to examine the power of exogenous constructs (Cohen, 1988) in the theoretical model. According to Cohen (1998), the effect size would be large if $f^2 \geq 0.35$, medium if $f^2 \geq 0.15$, and small if $f^2 \geq 0.05$, whilst the cut-off value is at 0.02. In this study, the effect sizes of CBI that explained cognitive engagement ($f^2 = 0.290$) and that of cognitive engagement that explained ongoing search behavior ($f^2 = 0.169$) were medium. The effect sizes of CBI that explained behavioral engagement ($f^2 = 0.149$) and emotional engagement ($f^2 = 0.124$) were small. Additionally, the effect sizes of CCI that explained cognitive engagement ($f^2 = 0.082$) and emotional engagement ($f^2 = 0.078$) were small. Lastly, the effect sizes of behavioral engagement ($f^2 = 0.122$) and emotional engagement ($f^2 = 0.081$) that explained repurchase intention were small, whilst the effect size of CCI that explained behavioral engagement ($f^2 = 0.045$) exceeded the cut-off value but was trivial in size.

The R^2 values were used to evaluate the explanatory power of the theoretical model in this study. The R^2 values for cognitive engagement, emotional engagement and behavioral engagement were 0.467, 0.335, and 0.315, respectively. These results indicated that the three CBE dimensions were well explained by the exogenous variables, which were CCI and CBI. Besides, the R^2 values for ongoing search behavior and repurchase intention were 0.335 and 0.557, respectively, suggesting that the model was able to explain the variation of the targeted

constructs (Chin, 1998).

5. Discussion

Several key findings emerge from the results of this study, highlighting the importance of CCI and CBI in driving CBE dimensions, and subsequently driving consumers' ongoing search behavior and repurchase intentions. First, the findings suggest that both CCI and CBI are significant predictors of cognitive engagement, emotional engagement and behavioral engagement. This highlights the importance of facilitating both CCI and CBI to drive consumers' CBE.

Second, the findings reveal that CBI is more powerful than CCI in terms of effect size. This suggests that CBI is more important than CCI in driving consumers' cognitive engagement, emotional engagement, and behavioral engagement. In other words, strategies that facilitate CBI, such as encouraging consumers to co-design packaging, providing opinions on the quality of products, and involving them in new product development processes, is the primary driver in driving the three CBE dimensions.

Third, the findings suggest that cognitive engagement is a key predictor of ongoing search behavior, but emotional engagement and behavioral engagement are not influential in driving ongoing search behavior. This suggests that consumers' ongoing search behavior is related closely to their cognitive efforts invested in understanding the focal brands, partially supporting the arguments of prior studies (e.g. Eigenraam et al., 2018; Kulviwat et al., 2004) that when consumers are willing to exert more cognitive effort in browsing brand-related information on various channels, this strengthens their intention to be engaged in ongoing search. However, in contrast with Cheung et al. (2020c), the findings reveal that emotional engagement and behavioral engagement are not useful in strengthening consumers' ongoing search behavior. One reason for the differences between these findings and the extant literature may be related to consumers' involvement with the focal product. The smartphone was selected as the focal product in this study, which is regarded as a high-involvement product, as consumers are motivated to study the features and specifications of smartphones, as well as seeking to maximize value for money through using their smartphone (Cheung et al., 2020d). As such, even for consumers having positive emotions and attitudinal loyalty towards brands, they still want to exert cognitive efforts in understanding more about the smartphones, and thus ongoing search behavior is driven by cognitive engagement.

Finally, the findings also suggest that repurchase intention is strengthened by emotional engagement and behavioral engagement, whilst the impact of cognitive engagement on repurchase intention is non-significant. Although this finding is not consistent with some prior studies (e.g., Algharabat et al., 2020; Luo et al., 2019), it is consistent with other studies (e.g. Hollebeek et al., 2014; Nysveen and Pedersen, 2014), which offers possible explanations. For example, Nysveen and Pedersen (2014) found that the impact of consumers' cognitive brand experience on brand loyalty was non-significant, arguing that consumers' loyalty intention is a long-term construct, being less likely to be strengthened by consumers' cognitive engagement. Hollebeek et al. (2014) also found a non-significant relationship between cognitive engagement and brand-usage intention. Leckie et al. (2016) also found a significant negative relationship between cognitive engagement and brand loyalty, arguing that high-level message repetition is tedious for consumers, and subsequently lowering their behavioral intentions. Zhang et al. (2016) examined the impacts of users' perceived information overload and social overload on social network fatigue, arguing that when users perceived the amount of information is excessive and the interaction with their friends is too much on the social networking site, they may feel exhausted in using the social networking site, which in turn discourages their continuous intention to use the social networking site. As such, our findings also demonstrate that repurchase intention is likely to be driven primarily by consumers' emotional and behavioral engagement and less likely by cognitive engagement. Summing up, this study has contributed to the marketing literature by affirming importance of CCI and CBI in driving the three CBE dimensions, along with the role of cognitive engagement, emotional engagement, and behavioral engagement in driving different forms of consumers' behavioral intentions.

6. Theoretical implications

This study offers several theoretical implications. First, we respond to the calls for further research in the area of CP (e.g. Carlson et al., 2019; Chen et al., 2018), by developing a holistic model to examine the importance of CP, as manifested by both CBI and CCI, in driving positive business outcomes. In particular, we extend Chen et al.'s (2018) study of CP by consolidating both consumers' resource-integration participative behaviors (CBI) and consumers' knowledge-sharing behaviors (CCI), thereby advancing understanding of how the two participative behaviors create positive outcomes for brands.

Second, we explore the relationship between the two forms of CP and the three CBE dimensions within a holistic model, thereby advancing the understanding of CBE literature. Prior studies have focused on the antecedents of CBE, including enduring involvement (Dwivedi, 2015), brand experience (Hepola et al., 2017), consumer participation (Leckie et al., 2016), and social-media brand interactivity (Cheung et al., 2020b), and the extent of this relationship in driving the consumers' behavioral intention, as reflected by brand loyalty (Leckie et al., 2016) and purchase intention (Hollebeek et al., 2014). Currently, multiple opportunities for empirical studies on the value of CBI and CCI have emerged within the field of marketing due to the growing importance of the CBI and CCI on social-media platforms (Chen et al., 2018; Eigenraam et al., 2018; Heinonen et al., 2018; Tajvidi et al., 2017). Hence, this study reduces the gaps in knowledge by empirically confirming the importance of CCI and CBI in driving all three CBE dimensions, which further discloses the importance of CP in the process of brand-building.

Although the importance of CP has been recognized in multiple studies within the field of marketing (Carlson et al., 2019; Chen et al., 2018; Kamboj, 2019; Revilla-Camacho et al., 2015), the collective influences of CCI and CBI on the individual CBE dimensions – cognitive, affective, and behavioral engagement – have yet to be explored. Findings in this study have, therefore, confirmed the role of CCI and CBI in driving cognitive, emotional, and behavioral engagement, which are also consistent with arguments made in the extant literature (Eigenraam et al., 2018; Heinonen et al., 2018; Tajvidi et al., 2017) on the significance of both CCI and CBI in building the consumer-brand relationship. As such, our findings contribute to the marketing literature by affirming the collective influences of CCI and CBI in driving the three CBE dimensions, thereby offering a more holistic view of how resource-integration behaviors (CBI) and knowledge-sharing behaviors (CCI) drive CBE, and the subsequent brand-desired business outcomes.

Third, whilst a majority of the marketing literature (Cheung et al., 2020b; Fernandes and Moreira, 2019; Liu et al., 2018) conceptualize CBE as a second-order, reflective-reflective (Type II) construct, we examine the three CBE dimensions as individual first-order constructs to enhance understanding of their antecedents and consequences. Although the importance of CBE in shaping positive consumer behavior has always been highly emphasized in the existing studies, the three CBE dimensions reflect consumers' differential loyalty intention and the empirical exploration of the relative importance of the three CBE dimensions in driving consumers' behavioral intentions is scant (Dessart et al., 2019). Hence, this study contributes to minimizing the knowledge gap within the literature by examining the relative importance of the three CBE dimensions on positive business outcomes. In particular, ranging from attentiveness, enthusiastic, and usage intention, the three CBE dimensions play a differential role in strengthening consumers' behavioral intentions, namely ongoing search behavior and repurchase intention. Further, we extend Dessart et al.'s (2019) CBE study by confirming that cognitive engagement is particularly useful in driving

consumers' ongoing search behavior, whilst emotional and behavioral engagement are significant predictors of consumers' repurchase intention.

7. Managerial implications

This study provides important managerial implications for marketers aiming to engage and drive the ongoing search behavior and repurchase intention amongst consumers, particularly Malaysian smartphone consumers. Based on the importance of CCI and CBI in driving consumers' cognitive, emotional, and behavioral engagement, it is recommended that marketers should facilitate CCI and CBI in social-media brand communities. Marketers may facilitate CCI by developing social-media brand communities on various platforms, such as Facebook pages, YouTube channels, WeChat pages, and other forums, along with creating interesting posts, pictures, and videos to stimulate consumers' interest to browse, share, and comment, and subsequently driving CBE (Eigenraam et al., 2018; Kamboj, 2019).

Marketers are also recommended to utilize the technological functions available in social-media platforms, such as tagging, hashtags, and lucky draws (Harmeling et al., 2017; Kamboj, 2019; Kamboj et al., 2018; Schultz, 2017), along with offering brand-related news, updated information, and specific offerings to encourage CCI. Additionally, marketers may consider introducing online chatrooms and feedback systems that allow two-way communication with consumers to facilitate CBI (Mustak et al., 2013). In particular, marketers may consider providing incentives, such as electronic coupons and rewards in the loyalty programs to motivate their consumers to contribute their feedback and opinions to improve the quality of existing goods and services. Marketers are also suggested to encourage consumers to be involved in their new product development process, by inviting their consumers to provide their preferred design of packaging and ideas for the features of the new products, which is deemed to be useful in driving CBI and subsequently building strong CBE (Ramaswamy and Ozcan, 2016).

The findings of this study confirm the importance of CBE dimensions in driving ongoing search behavior and repurchase intention. In order to drive consumers' ongoing search behavior, marketers are suggested to strengthen consumers' cognitive engagement. This can be done by providing customized information according to consumers' interests and browsing records on the social-media platforms, which is deemed to be useful in encouraging consumers to interact with each other and increase their efforts to understand more about the focal brands. Lastly, marketers are recommended to drive consumers' emotional and behavioral engagement in order to strengthen consumers' repurchase intention. This can be done by strengthening perceived benefits obtained from the focal brands on social-media brand communities by communicating the unique selling proposition clearly (Bloch et al., 2009), along with strengthening consumers' hedonic experiences by offering entertaining content.

8. Conclusion, limitations and future research

This study has explored the impact of the two forms of CP, including CCI and CBI, on the dimensions of CBE and behavioral intentions amongst consumers, concluding that CCI and CBI are significant predictors of all three CBE dimensions, which then affect consumers' ongoing search behavior and repurchase intention in turn. Both scholars and practitioners within the marketing industry have acknowledged the importance of CP in shaping positive consumer behavior. Therefore, there is a need to extensively explore and understand the role of the two forms of CP, including CCI and CBI, in the process of brand building.

Nonetheless, whilst meaningful implications are provided by the results of this study, there are still several limitations found within this study. Firstly, this is a cross-sectional study. Hence, future research should consider longitudinal studies to enhance the understanding of the effects of CCI and CBI over an extended period of time. Secondly, this

study has only focused on the positive perceptions created by CCI and CBI. Further investigations that incorporate the adverse effects created by CCI and CBI, such as negative engagement, value co-destruction and brand hate, should be carried out to ensure a more comprehensive understanding in this area of research interest. Thirdly, this study has been conducted using a purposive sample of Malaysian smartphone users only, therefore generalizing the findings beyond this group should be done with caution. Future studies should feature a larger, more randomly chosen group of respondents along with examining the differences between product categories (e.g. goods versus services, low versus high-involvement products) and between developed countries, such as the US, the UK, and France, as well as other developing countries, such as Brazil, China, and India, to enhance the generalizability of the findings. Fourthly, smartphone brands are typically large brands (e. g. Apple, Samsung), therefore future research could investigate how these findings fare for small brands. Fifthly, potential moderating effects have not been considered in this study. Hence, future research is recommended to examine the potential moderating effects of variables, such as consumers' enduring involvement level, in order to enhance the comprehensiveness of the model. Finally, this study has only focused on the importance of CCI and CBI in encouraging CBE. Thus, future studies are recommended to compare the relative importance of CCI and CBI and other related variables, such as the flow, social presence, and psychological ownership of a brand to identify the relative importance among the constructs that enhance the comprehensiveness of the findings further.

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