



# Antecedents of consumer-brand engagement: The mediating role of brand satisfaction



## Authors:

Thinkwell Ndhlovu<sup>1</sup> 

Tania Maree<sup>1</sup> 

## Affiliations:

<sup>1</sup>Department of Marketing Management, Faculty of Economic and Management Sciences, University of Pretoria, Pretoria, South Africa

## Corresponding author:

Thinkwell Ndhlovu,  
thinkwell.ndhlovu@up.ac.za

## Dates:

Received: 26 Mar. 2025

Accepted: 29 Sept. 2025

Published: 20 Nov. 2025

## How to cite this article:

Ndhlovu, T. & Maree, T., 2025, 'Antecedents of consumer-brand engagement: The mediating role of brand satisfaction', *South African Journal of Economic and Management Sciences* 28(1), a6196. <https://doi.org/10.4102/sajems.v28i1.6196>

## Copyright:

© 2025. The Authors. Licensee: AOSIS. This work is licensed under the Creative Commons Attribution 4.0 International (CC BY 4.0) license (<https://creativecommons.org/licenses/by/4.0/>).

**Background:** Customer management has evolved from transaction-based to customer engagement, emphasising the importance of establishing strong customer-brand relationships. To achieve consumer-brand engagement (CBE), nurturing connections and customer satisfaction are key. This study investigates CBE in two globally relevant brand contexts: services (social media) and products (smartphones).

**Aim:** This study investigated how brand satisfaction mediates the relationships between consumer-based drivers, brand trust and self-expressive brands — as well as a firm-initiated driver, brand interactivity — and their influence on CBE.

**Setting:** The study focused on South African smartphone owners and social media users.

**Method:** A quantitative, cross-sectional, descriptive research design was followed. Data was collected from 503 smartphone owners and 491 social media users.

**Results:** Structural equation modelling results for smartphones show that brand interactivity and self-expressive brand drive CBE reasoned behaviour. In the social media context, self-expressive brand drives CBE. Brand satisfaction is a mediator for both. It fully mediated the relationships between self-expressive brand and consumer-brand engagement affection, and brand interactivity and consumer-brand engagement affection, while partially mediating all other relationships.

**Conclusion:** This study offers valuable insights into the importance of brand satisfaction within the CBE process, as it is the first to propose satisfaction as a mediator between key CBE drivers across two contexts.

**Contribution:** Theoretically, the study contributes to S-D Logic to better understand the underlying mechanism of satisfaction in building relationships between consumers and brands. Practically, the findings highlight how key factors driving CBE are interconnected with satisfaction, which should be a central focus to enhance consumer engagement.

**Keywords:** brand satisfaction; self-expressive brand; brand trust; brand interactivity; consumer-brand engagement.

## Introduction

Over the course of time, customer management has evolved from a transactional to a relational marketing approach and now to engagement, signifying a satisfying association between the consumer and the brand (Pansari & Kumar 2017:295). Prior research reveals that a satisfied consumer is prone to brand engagement post-purchase (Touni et al. 2020:293). Veloutsou (2015:407) points out that managers prioritise satisfied consumers because of their crucial role in consumer-brand relations. Satisfaction is defined as the alignment between customers' expectations and their actual experiences with a service, as well as the emotions they associate with those experiences (Van Tonder & De Beer 2018:3). This study explores how satisfaction acts as a mediator in the relationships between consumer-brand engagement (CBE) and selected drivers.

Brand *trust* is the cornerstone of the interactions and relationships between consumers and brands (Morgan & Hunt 1994:24). In CBE terms, trust means that consumers have confidence in the brand acting in their best interests and perceive less risk in brand interactions (Hollebeek 2011:794). Brand *interactivity* entails mutual communication between various actors in the engagement process (Kaur et al. 2020) and is a key characteristic of CBE (Islam et al. 2019:277). As the relationship between the consumer and the brand grows, consumers can perceive the brand as an extension of the self, socially and individually (Ruane & Wallace 2015:335), which

## Read online:



Scan this QR code with your smart phone or mobile device to read online.

refers to *self-expressive brand*. These constructs represent drivers of CBE from both consumer-based (brand trust and self-expressive brand) and firm-initiated (interactivity) perspectives (France, Merrilees & Miller 2016:122; Ndhlovu & Maree 2024:945).

This article proposes that CBE is impacted by these drivers through satisfaction, which is of interest in various fields of social sciences (Kim 2012:220). Satisfied customers are key in the customer–brand relationship, and they are likely to engage with brands. Satisfaction interrelates with CBE in different ways, including as an influencer (Bergel, Frank & Brock 2019:896; De Oliveira Santini et al. 2020:1219), an outcome (Behnam et al. 2020:7) or a mediator (Agyei et al. 2021:10; Fernandes & Moreira 2019:283; Rather 2019:126).

This article is the first to position satisfaction as a mediator between both firm-initiated and consumer-initiated drivers and CBE. Further, this article focuses on both product and service contexts, as CBE is ‘context-specific’ (Hollebeek et al. 2019:173; Ndhlovu & Maree 2022:231; Oliveira & Fernandes 2020:5).

The article is theoretically grounded in service-dominant logic (S-D logic), which emphasises value co-creation between consumers and brands within interactive service networks (Vargo & Lusch 2016:7) to the benefit of both parties. Examining consumer-based and firm-initiated drivers, as well as the mediating role of satisfaction, is important in illuminating the S-D logic’s narrative of value co-creation within CBE. This is because it highlights how and why customers and brands engage in mutually beneficial relationships (Ashaduzzaman et al. 2024:3325).

This article provides theoretical and managerial contributions. This research is the first to explore the mediating role of brand satisfaction in the relationships between key consumer-based and firm-initiated CBE drivers and CBE. This proposed holistic customer–brand relationship model provides insights into the mechanistic role of satisfaction in two contexts. It enhances insights into the S-D logic as a theoretical lens for explicating the role of satisfaction in lasting consumer–brand relationships. Practically, the findings of this research offer insights into how key drivers of CBE interrelate with satisfaction as a key managerial focus, resulting in enhanced engagement. The findings provide knowledge that managers can consider utilising as strategic components when targeting their existing consumers.

The rest of the article presents a literature review and theoretical framework, followed by an outline of the research methodology, data analysis and findings. The article concludes with theoretical and managerial implications, limitations and future research directions.

## Literature review

### Consumer–brand engagement

Consumer–brand engagement is defined by Hollebeek et al. (2019:167) as ‘a customer’s motivationally driven, volitional

investment of focal operant resources (including cognitive, emotional, behavioural and social knowledge and skills), and operant resources (equipment) into brand interactions in service systems’. Firms’ customer management has transitioned from a transactional strategy to engagement by creating emotional bonds and establishing satisfying relationships with consumers that result in value co-creation (Pansari & Kumar 2017:295). This article defines CBE as ‘a consumer’s psychological state and behavior that occur through the process of value co-creation involving resource integration and service exchanges in consumer–brand interactive service systems’ (Ndhlovu & Maree 2022:229).

Consumer–brand engagement is an interactive process incorporating a subject (e.g. the consumer) and a focal object (e.g. the brand) (Brodie et al. 2019a:183; Fernandes & Moreira 2019:276). In this process, consumers are motivated to invest resources in brand interactions (Hollebeek et al. 2019:157; Hollebeek, Hammedi & Sprott 2023:926; Jaakkola & Alexander 2014:248). Scholars agree that customers co-create value with the focus brand and the other actors involved (Hollebeek et al. 2019:168; Jaakkola & Alexander 2014:255; Kumar et al. 2019:155). The consumer acts proactively, sharing experience-based knowledge about the brand with other consumers, which produces mutually beneficial value (Hollebeek et al. 2019:167).

### Theoretical framework

The literature shows that most CBE studies are underpinned by S-D logic (Brodie et al. 2019b; Hollebeek et al. 2019; Nyadzayo, Leckie & Johnson 2020). The S-D logic’s narrative of value co-creation incorporates actors who are involved in resource integration, service exchange and value co-creation through established nested service ecosystems, managed through their institutions and institutional arrangements (Vargo & Lusch 2016:7). Value co-creation is central to S-D logic and occurs within ecosystems through engagement of various actors. The extant literature argues that organisations leverage their strategic co-creation capabilities to create value propositions that engage customers and other stakeholders, thereby initiating the process of co-creation (Katsifaraki & Theodosiou 2024:100–102). Service-dominant logic is appropriate for this study to theoretically support CBE, as it clarifies how and why various actors participate in a mutually beneficial exchange (Ashaduzzaman et al. 2024:3325).

According to Storbacka et al. (2016:3008), CBE is a micro-foundation for value co-creation in the service ecosystem. Trust between actors is important as it determines the success of any connection. Rooted in CBE’s intrinsically interactive nature (Hollebeek et al. 2023:925), trust between actors is an important determinant of the success of the connection (Jung, Kim & Kim 2014:583; Kumar et al. 2019:149–150).

In addition, consumers who identify (individual and social self) with a brand exhibit more engagement (Nyadzayo et al. 2020:565), resulting in co-creation of value through identity-reflecting behaviour that also supports the

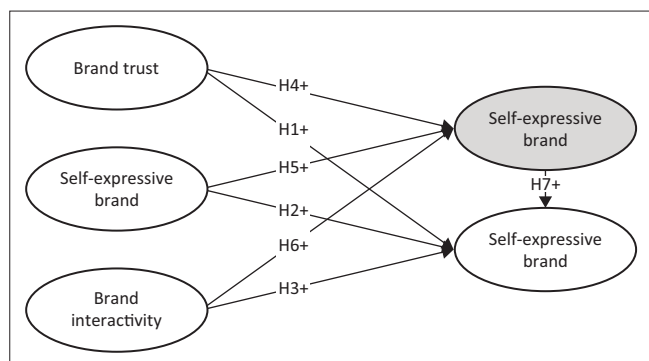


FIGURE 1: Conceptual framework.

brand (Lee & Workman 2015:14). France et al. (2016:124) indicate that brand interactivity critically influences the extent of consumer engagement with the brand. As interaction is initiated by the firm, this shows the extent of mutual communication among various actors. Thus, S-D logic provides the theoretical base for the influence of self-expressive brand, brand trust and brand interactivity on CBE. This theoretical view supports the proposed framework of the study, as value co-creation occurs between the customer and the brand because of an existing relationship based on trust, shared identity and two-way interactions, which interrelate to satisfaction and, ultimately, CBE. The conceptual framework is presented in Figure 1.

### Hypotheses development

The consumer-based drivers of CBE are attitudinal dimensions that are influenced by the consumer's predispositions (Islam & Rahman 2016:2020), while firm-initiated drivers are dimensions that are in the control of the firm and directly influence the firm's performance (Islam & Rahman 2016:2020). This article examines the consumer-based CBE drivers, namely brand trust and self-expressive brand, and the firm-initiated driver, brand interactivity. Further, it examines the mediating role of satisfaction in the proposed relationships.

#### Brand trust

Consumers trust a brand when they have developed confidence in the firm's reliability and integrity in delivering services (Morgan & Hunt 1994:23). Trust is critical in relational exchanges and results in long-term commitment and value creation in the form of purchase loyalty (Shukla, Banerjee & Singh 2016:325). Based on S-D logic, various actors get involved in mutual service exchanges to co-create value (Vargo & Lusch 2016:7). Trust is, therefore, key for value co-creation in the consumer-brand relationship. When there is no trust, consumers abstain from interacting with the brand (Morgan-Thomas & Veloutsou 2013:23). Prior conceptual studies proposed brand trust as an important antecedent of CBE for the existing consumers of a focal brand (Hollebeek 2011:794). This is supported by empirical research that shows a positive relationship between brand trust and CBE (De Oliveira Santini et al. 2020:1213; Ndhlovu & Maree 2024:953; Nyadzayo et al. 2020:570). It is hypothesised that:

H<sub>1</sub>: Brand trust significantly and positively influences CBE

#### Self-expressive brands as a driver of consumer-brand engagement

Self-expressive brand is the 'consumer's perception of the degree to which a specific brand enhances one's social self and/or reflects one's inner self' (Carroll & Ahuvia 2006:82). Consumers perceive the brand as an extension of self, indicating a relationship between self-concept and the brand (Belk 2013:477). Consequently, consumers tend to form emotional connections with brands that align with their self-perception. Such consumers generate value for the brand through positive word-of-mouth and loyalty (Carroll & Ahuvia 2006:79). Thus, self-expressive brand is key to strengthening the consumer-brand relationship. Consumers tend to engage with a self-expressive brand that enhances their self-concept (Sprott, Czellar & Spangenberg 2009:101). Based on S-D logic's premise of value co-creation and its interactive nature (Vargo & Lusch 2016:7), self-expressive brand is likely to drive CBE. Previous empirical studies found that self-expressive brand positively influences CBE (Algharabat et al. 2020:9; Ndhlovu & Maree 2024:953; Nyadzayo et al. 2020:570). It is hypothesised that:

H<sub>2</sub>: Self-expressive brand significantly and positively influences CBE

#### Brand interactivity

In today's market environment, contemporary tech-savvy consumers are actively involved in reciprocal communication with brands, showing high levels of interactivity (Kaur et al. 2020:1). Brand interactivity is 'the consumer's perception of the brand's willingness and genuine desire for integration with the consumer' (France et al. 2016:124). Interactivity, thus, represents reciprocal communication that occurs between the consumer and the brand. Consumers assess the degree to which brands are responsive in the two-way communication (Cheung et al. 2020:525).

As a firm-initiated aspect, brand interactivity is central to the CBE process (France et al. 2016:124). As brand interactivity encourages and allows the consumer and brand to co-create value, S-D logic serves as the foundation for understanding how brand interactivity influences CBE. Prior conceptual research and empirical evidence show that interactivity favourably affects CBE (France et al. 2016:131; Gómez, Lopez & Molina 2019:204; Islam & Rahman 2017:96; Ndhlovu & Maree 2024:952). The following is hypothesised:

H<sub>3</sub>: Brand interactivity significantly and positively influences CBE

#### Mediating role of brand satisfaction

Satisfied consumers are critical in consumer-brand relations; thus, managers have made them a key priority (Veloutsou 2015:407). Brand satisfaction is the fulfilment or exceeding of the consumer's expectations of the brand's perceived performance (Oliver 1999:34). In this article, satisfaction is considered as a potentially important mediator rather than as an antecedent (Bergel et al. 2019:894;

De Oliveira Santini et al. 2020:1214; Touni et al. 2020:293) or outcome (Behnam et al. 2020:3) of CBE. Satisfaction as a mediator interrelating with CBE has not been examined, considering both firm-initiated and consumer-initiated drivers in two distinct contexts.

For mediation to be established, the indirect effect of the independent variable on the dependent variable must be significant (Zhao, Lynch & Chen 2010:204). Therefore, the effect of brand trust, self-expressive brand and brand interactivity on satisfaction was investigated first. The relationship between trust and satisfaction is built through frequent interactions (Kim 2012:225). Similarly, self-expressive brand is highly likely to influence brand satisfaction, as the literature shows that consumers who see the brand as an extension of self tend to be satisfied (Wang, Qu & Yang 2019:377). Correspondingly, the literature shows that interactivity tends to influence satisfaction (Kim et al. 2015:957). Based on the above, it is hypothesised that:

- H<sub>4</sub>:** Brand trust significantly and positively influences brand satisfaction
- H<sub>5</sub>:** Self-expressive brand significantly and positively influences brand satisfaction
- H<sub>6</sub>:** Brand interactivity significantly and positively influences brand satisfaction

Research indicates that satisfaction is a driver of CBE (Pansari & Kumar 2017:300; Touni et al. 2020:293). The satisfied consumer will engage the brand beyond purchase (Touni et al. 2020:293). This research proposes that brand satisfaction relates positively to CBE. Therefore, it is hypothesised that:

- H<sub>7</sub>:** Brand satisfaction significantly and positively influences CBE

Prior research has found the mediating role of brand satisfaction in associations involving other marketing constructs such as service quality, corporate image and repurchase intentions (Srivastava & Sharma 2013:276). The literature demonstrates that brand trust, self-expressive brand and brand interactivity influence satisfaction, which may suggest an indirect effect on CBE. From the literature reviewed for this article, no study has reported on the mediating role of brand satisfaction involving the relationships between brand trust, self-expressive brand, interactivity and CBE. Thus, the following hypotheses are posited:

- H<sub>8</sub>:** Brand satisfaction mediates the relationship between brand trust and CBE
- H<sub>9</sub>:** Brand satisfaction mediates the relationship between self-expressive brand and CBE
- H<sub>10</sub>:** Brand satisfaction mediates the relationship between brand interactivity and CBE

## Methods

### Sampling and data collection

A self-completed online survey was distributed to two independent groups of South African smartphone and

social media users recruited through the Qualtrics panel. Convenience sampling was used to draw the samples, as no sample frame representing the target population was available. The contexts were selected as they represent categories where global brands operate and facilitate the view that CBE is context specific. Respondents were filtered using screening questions. Screening criteria in the smartphone sample were ownership of a smartphone device and respondents had to choose the brand of the smartphone they preferred using. Social media respondents were screened on being at least a weekly user of a social media account, and then they had to choose their preferred social media platform. The selected brands were carried forward through the rest of the questionnaire for the respective samples.

### Sample profile for both contexts (smartphones and social media)

The sample sizes were as follows: smartphone, 503 and social media, 491. The sample sizes were appropriate as the models were of moderate complexity, considering the number of indicators (observed and latent variables); there were high factor loadings (minimum 0.7), and a robust multilevel modeling (MLM) estimator method was used (Wolf et al. 2013:8). Table 1 presents the demographic profile of the respondents for both contexts.

Table 1 shows that the gender distribution was relatively equal, and the largest proportion of the samples were black African people (43.2% for the social media sample and 43.7% for the smartphone sample). Table 2 presents the preferred social media and smartphone brands indicated by the respondents.

As shown in Table 2, Samsung was the top selected smartphone brand (38.8%), while Facebook was the top preferred social media (46.8%). The brands are global brands, representing a view on consumer relationships with multinational brands.

### Questionnaire design and measurements

Online self-administered questionnaires measured CBE, brand trust, self-expressive brand, brand interactivity and brand

**TABLE 1:** Sample populations' demographic characteristics.

Sample characteristic	Smartphone (N = 503)		Social media (N = 491)	
	n	%	n	%
<b>Gender</b>				
Male	253	50.3	247	50.3
Female	250	49.7	244	49.7
<b>Race</b>				
Black African people	220	43.7	212	43.2
Coloured people <sup>1</sup>	59	11.7	68	13.8
Indian and Asian people	34	6.8	25	5.1
White people	185	36.8	177	36.0
Other (specify)	5	1.0	9	1.8

1. Classifications according to Statistics South Africa.

**TABLE 2:** Respondents' preferred smartphone and social media brands.

Preference	<i>n</i>	%
<b>Smartphone brand</b>		
Samsung	195	38.8
Huawei	136	27.0
Apple	89	17.7
Other	42	8.3
Nokia	17	3.4
Sony	10	2.0
Xiaomi	9	1.8
LG	2	0.4
Microsoft	2	0.4
HTC	1	0.2
<b>Social media brand</b>		
Facebook	230	46.8
YouTube	110	22.4
Instagram	94	19.1
X (formerly Twitter)	42	8.6
LinkedIn	15	3.1

satisfaction. Validated measures from previous studies, formatted as five-point Likert-type scales (strongly disagree to strongly agree), were adapted to reflect the two contexts. The 29-item CBE product measure (affection and reasoned behaviour) and the 20-item CBE service measure (affection, absorption, identification and social connection) were adopted from the scales developed for the South African context by Ndhlovu and Maree (2022:234–235); brand trust (five items) from Becerra and Badrinarayanan (2013:376); eight items self-expressive brand from Carroll and Ahuvia (2006:84–85); five items for brand interactivity from France et al. (2016:128) and four items from Veloutsou (2015:421) for brand satisfaction.

The questionnaires included respondents' demographic information: age, gender, race and home language. Pilot studies to pre-test the questionnaires for both contexts were conducted to assess the feasibility of the scales in the main study. A two-step approach – confirmatory factor analysis (CFA) and structural equation modelling (SEM) – was employed to investigate the hypothesised effects and to assess the structural model. Statistical package for the social sciences (SPSS) 25 and Mplus statistical software programs were used for the data analysis.

## Data analysis

The Kolmogorov–Smirnov and Shapiro–Wilk tests for normality were statistically significant, indicating non-normality for both samples. Thus, the MLM estimator was used for model estimation, which is robust in cases of non-normality (Muthén & Muthén 2017:667), as it produces parameter estimates with standard errors and a mean-adjusted Satorra–Bentler chi-square test statistic.

## Measurement and structural model estimations, reliability and validity

To assess the model fit, the study incorporated Satorra–Bentler  $\chi^2/df$  ratio, root mean square error of approximation (RMSEA), comparative fit index (CFI), Tucker–Lewis index (TLI) and standardized root mean square residual (SRMR). The psychometric properties (reliability and validity) of the

measurements were also assessed. Concerns arising during these processes were addressed and, if necessary, measurement models were re-estimated.

Scale reliability was evaluated considering both composite reliability (CR) and Cronbach's alpha. Scales have internal consistency if these scores are 0.7 or higher (Hair et al. 2019:775). Convergent validity was examined through the average variance extracted (AVE) for each construct and standard factor loading estimates. The AVE should be 0.5 or greater, while factor loadings should exceed 0.7 and be statistically significant ( $p < 0.01$ , two-tailed) (Hair et al. 2019:676).

According to Fornell and Larcker (1981:46), to establish discriminant validity, the square root of the construct's AVE must exceed its correlations with other constructs. Discriminant validity issues were addressed by using the Satorra–Bentler chi-square difference test (Mplus 2020) to assess the differences in chi-square values between constrained and unconstrained CFAs. At a significance interval of 5% with one degree of freedom and a chi-square over 3.84, construct pairs are proven to be distinct (Shiu et al. 2011:497). After assessing the measurement models and establishing reliability and validity, Mplus (version 8) was used to conduct the structural model (SEM) estimations.

## Hypotheses testing

The relational hypotheses were tested through path analyses ( $H_1-H_7$ ). For the mediation hypotheses ( $H_8-H_{10}$ ), this study followed the proposed recommendations by Zhao et al. (2010:204). They suggest using the bootstrap test of the indirect effect, and that, to establish mediation, the indirect effect should be significant.

Bootstrapping tests are useful for understanding indirect effects in mediation models (Zhao et al. 2010:204). Mediation was tested using the Hayes Process macro (Model 4 for SPSS) (Hayes 2014:110). The study generated 10000 random bootstrapping samples from the original datasets at a 95% confidence interval (CI). An evaluation of the generated bias-corrected CIs was conducted to establish whether the CI for the direct and indirect effect included zero, which would be indicative of a non-significant result, thus, no mediation. The type of mediation was assessed using the guidelines proposed by Zhao et al. (2010:204). Although the findings using other tools are ultimately similar, this research utilised Process because it is significantly easier to use than other SEM programs. It is important to note that not all SEM programs are able to generate the full range of statistics that Process does, nor do they implement bootstrapping in a way that supports inference (Hayes, Montoya & Rockwood 2017:78).

## Ethical considerations

An application for full ethical approval was made to the Research Ethics Committee, Faculty of Economic and Management Sciences, University of Pretoria, and ethics consent was received on 18 April 2019. The ethics approval number is EMS070/19. An informed consent form placed at

the start of the online survey elicited the respondents' voluntary participation and the research's adherence to confidentiality principles. The datasets were uploaded to a secure institutional repository.

## Results

### Smartphone context

#### Measurement model, reliability and validity

The following fit index criteria (Hair et al. 2019:642) were used: Satorra–Bentler  $\chi^2/df$  ratio < 3, RMSEA < 0.08, CFI > 0.9, TLI > 0.9 and SRMR < 0.08. The results showed an acceptable model fit:  $\chi^2/df = 1.79$ , RMSEA = 0.040, CFI = 0.953, TLI = 0.950 and SRMR = 0.043. The results show that the expected two dimensions – affection and reasoned behaviour – were found. Therefore, hypotheses 1–3 and 7–10 for the smartphone study were adapted as follows:

- $H_{1a}$ : Brand trust significantly and positively influences CBE affection
- $H_{1b}$ : Brand trust significantly and positively influences CBE reasoned behaviour
- $H_{2a}$ : Self-expressive brand significantly and positively influences CBE affection
- $H_{2b}$ : Self-expressive brand significantly and positively influences CBE reasoned behaviour
- $H_{3a}$ : Brand interactivity significantly and positively influences CBE affection
- $H_{3b}$ : Brand interactivity significantly and positively influences CBE reasoned behaviour
- $H_{7a}$ : Brand satisfaction significantly and positively influences CBE affection
- $H_{7b}$ : Brand satisfaction significantly and positively influences CBE reasoned behaviour
- $H_{8a}$ : Brand satisfaction mediates the relationship between brand trust and CBE affection
- $H_{8b}$ : Brand satisfaction mediates the relationship between brand trust and CBE reasoned behaviour
- $H_{9a}$ : Brand satisfaction mediates the relationship between self-expressive brand and CBE affection
- $H_{9b}$ : Brand satisfaction mediates the relationship between self-expressive brand and CBE reasoned behaviour
- $H_{10a}$ : Brand satisfaction mediates the relationship between brand interactivity and CBE affection
- $H_{10b}$ : Brand satisfaction mediates the relationship between brand interactivity and CBE reasoned behaviour

The results for construct reliability and convergent validity (Table 3) indicate internal consistency reliability, and the AVEs demonstrate convergent validity.

The discriminant validity results revealed discriminant validity issues between the following pairs: (1) self-expressive brand and CBE reasoned behaviour; (2) brand interactivity and CBE reasoned behaviour. The results of the Satorra–Bentler chi-square difference test showed that the pairs of constructs were distinct (Shiu et al. 2011:497). Thus, there was sufficient evidence for construct reliability and validity.

**TABLE 3:** Construct reliability and convergent validity.

Context	Construct	AVE	Composite reliability	Cronbach's alpha
Smartphone	CBE affection	0.729	0.960	0.960
	CBE reasoned behaviour	0.601	0.962	0.944
	Brand trust	0.743	0.920	0.918
	Self-expressive brand	0.745	0.959	0.959
	Brand interactivity	0.686	0.916	0.916
	Satisfaction	0.710	0.907	0.904
Social media	Brand trust	0.696	0.901	0.877
	Self-expressive brand	0.594	0.921	0.921
	Brand interactivity	0.506	0.837	0.885
	Satisfaction	0.550	0.829	0.820
	CBE	0.510	0.805	0.813

Note: All loadings were statistically significant at  $p < 0.01$ .

AVE, Average variance extracted; CBE, consumer–brand engagement.

### Structural model and hypotheses testing

For testing the revised hypotheses, structural model estimations and path analyses were run. Consumer–brand engagement in the smartphone context has only two first-order dimensions; therefore, it could not be examined as a higher-order construct (Mplus 2008). The model fit was good ( $\chi^2/df = 1.80$ , RMSEA = 0.040, CFI = 0.953, TLI = 0.950 and SRMR = 0.043). Table 4 presents the results of the hypothesised relationships.

The results of the path analysis show that self-expressive brand favourably affected CBE reasoned behaviour ( $\beta = 0.534$ ; standard error [s.e.] = 0.041;  $p = 0.0001$ ), thus supporting  $H_{2b}$ . The results also show that brand interactivity had a positive effect on reasoned behaviour ( $\beta = 0.202$ ; s.e. = 0.060;  $p = 0.001$ ), thereby supporting  $H_{3b}$ ; that brand trust positively affected satisfaction ( $\beta = 0.608$ ; s.e. = 0.054;  $p = 0.0001$ ), supporting  $H_4$  and that brand interactivity positively influenced satisfaction ( $\beta = 0.425$ ; s.e. = 0.064;  $p = 0.0001$ ), thereby supporting  $H_6$ . In addition, the results demonstrate that satisfaction positively influenced CBE affection ( $\beta = 0.638$ ; s.e. = 0.100;  $p = 0.001$ ) and CBE reasoned behaviour ( $\beta = 0.147$ ; s.e. = 0.061;  $p = 0.016$ ), thereby supporting  $H_{7a}$  and  $H_{7b}$ .

The results also show that four paths in the structural model were not statistically significant: brand trust to CBE affection ( $\beta = 0.156$ ; s.e. = 0.093;  $p = 0.093$ ), brand trust to CBE reasoned behaviour ( $\beta = 0.093$ ; s.e. = 0.079;  $p = 0.244$ ), self-expressive brand to CBE affection ( $\beta = -0.010$ ; s.e. = 0.053;  $p = 0.844$ ) and interactivity to CBE affection ( $\beta = -0.043$ ; s.e. = 0.091;  $p = 0.637$ ). Thus,  $H_{1a}$ ,  $H_{1b}$ ,  $H_{2a}$  and  $H_{3a}$  were not supported. The path between self-expressive brand and satisfaction was significant but negative; thus,  $H_5$  was not supported.

### Mediation analysis for the smartphone context

The mediating effect of satisfaction on the relationships between brand trust, self-expressive brands, interactivity and CBE was assessed. Table 5 presents the mediation results.

The mediation results show that the indirect effects of brand trust, self-expressive brand and brand interactivity

**TABLE 4:** Results of hypotheses testing for smartphones.

Hypothesis	Structural path	Standardised estimate	SE	<i>t</i>	<i>p</i> -value	Result
H1a	BT → CBE AFF	0.156	0.093	1.679	0.0930	Not supported
H1b	BT → CBE RB	0.093	0.079	1.165	0.2440	Not supported
H2a	SEB → CBE AFF	-0.010	0.053	-0.197	0.8440	Not supported
H2b	SEB → CBE RB	0.534	0.041	13.141	0.0001***	Supported
H3a	INT → CBE AFF	-0.043	0.091	-0.472	0.6370	Not supported
H3b	INT → CBE RB	0.202	0.060	3.347	0.0010***	Supported
H4	BT → SAT	0.608	0.054	11.269	0.0001***	Supported
H5	SEB → SAT	-0.150	0.042	-3.525	0.0001***	Not supported
H6	INT → SAT	0.425	0.064	6.693	0.0001***	Supported
H7a	SAT → CBE AFF	0.638	0.100	6.367	0.0001***	Supported
H7b	SAT → CBE RB	0.147	0.061	2.404	0.0160**	Supported

CBE, consumer–brand engagement; AFF, affection; RB, reasoned behaviour; SEB, self-expressive brand; INT, brand interactivity; SAT, brand satisfaction; BT, brand trust; SE, standard error.

\*\* statistically significant at  $p < 0.05$ , two-tailed; \*\*\* statistically significant at  $p < 0.01$ , two-tailed.

**TABLE 5:** Mediation results for smartphone.

Hypothesis	Satisfaction as mediator between:	Direct effect						Indirect effect				Result
		Effect	LLCI	ULCI	SE	<i>t</i>	<i>p</i> -value	Effect	LLCI	ULCI	Bootstrap SE	
H8a	BT and CBE AFF	0.189	0.095	0.284	0.048	3.928	0.0001	0.384	0.281	0.485	0.052	Partial mediation
H8b	BT and CBE RB	0.504	0.401	0.608	0.053	9.575	0.0001	0.240	0.142	0.335	0.049	Partial mediation
H9a	SEB and CBE AFF	0.031	-0.029	0.092	0.031	1.019	0.3090	0.284	0.228	0.347	0.030	Full mediation
H9b	SEB and CBE RB	0.571	0.521	0.621	0.026	22.400	0.0001	0.144	0.111	0.183	0.019	Partial mediation
H10a	INT and CBE AFF	0.087	-0.001	0.175	0.045	1.952	0.0510	0.415	0.321	0.512	0.049	Full mediation
H10b	INT and CBE RB	0.585	0.495	0.674	0.045	12.858	0.0001	0.191	0.118	0.261	0.037	Partial mediation

LLCI, lower-level confidence interval; ULCI, upper-level confidence interval; CBE, consumer–brand engagement; AFF, affection; RB, reasoned behaviour; SEB, self-expressive brand; INT, brand interactivity; SAT, brand satisfaction; BT, brand trust; SE, standard error.

on CBE via satisfaction were all significant, as the CIs did not include zero, suggesting mediation. As mediation was confirmed through the significant indirect effects, the next step was to determine the type of mediation. Evidence of partial mediation was found in support of  $H_{8a}$  and  $H_{8b}$  through the positively significant direct effects of brand trust on CBE affection ( $\beta = 0.189$ ; CI = 0.095 to 0.284) and CBE reasoned behaviour ( $\beta = 0.504$ ; CI = 0.401 to 0.608).

The results suggest that satisfaction fully mediated the self-expressive brand–CBE affection relationship, because of the non-significant direct effect of self-expressive brand ( $\beta = 0.031$ ; CI = -0.029 to 0.092), indicating full mediation, thereby supporting  $H_{9a}$ . In supporting  $H_{9b}$ , self-expressive brand's direct effect on CBE reasoned behaviour ( $\beta = 0.571$ ; CI = 0.521 to 0.621) was positively significant, suggesting that satisfaction partially mediated this relationship. In addition, the results show that the direct effect of brand interactivity on CBE affection was non-significant ( $\beta = 0.087$ ; CI = -0.001 to 0.175), suggesting full mediation, thereby supporting  $H_{10a}$ . Finally, the results supported  $H_{10b}$  as the indirect effect of brand interactivity on CBE reasoned behaviour ( $\beta = 0.585$ ; CI = 0.495 to 0.674) was positively significant, indicating the partial mediating role of satisfaction.

## Social media context

### Consumer–brand engagement: A higher-order construct

As CBE is deemed a multidimensional construct, the social media study conceptualises CBE as a second-order construct measured reflectively by four first-order dimensions: affection, absorption, identification and social connection. To use a parsimonious model for hypothesis testing, CBE

was confirmed as higher-order before running the full CFA. Two measurement models were assessed (CBE as first-order reflective: Model 1, and a second-order reflective construct: Model 2). Better model fit is indicated by the model with the smallest bayesian information criterion (BIC) (Posada & Buckley 2004:797). The results showed that model 2 had a smaller BIC, and the BIC difference of 39.319 provided very strong evidence for CBE as a higher-order construct, and thus, was used as such in the study. Note that this procedure was not possible with a two-dimensional construct (Mplus 2008), as was the case for the smartphone sample.

### Measurement model, reliability and validity

The CFA resulted in acceptable model fit:  $\chi^2/df = 1.74$ ; RMSEA = 0.039; CFI = 0.945; TLI = 0.940; SRMR = 0.054. As shown in Table 3, acceptable internal consistency reliability and convergent validity were achieved. Discriminant validity was achieved for most of the constructs, except for (1) CBE and satisfaction and (2) satisfaction and brand interactivity. The results of the further examination for discriminant validity (Shiu et al. 2011:497) showed that the pairs of constructs were distinct from one another.

### Structural model and hypotheses testing

The structural model fit was acceptable as  $\chi^2/df = 1.74$ , RMSEA = 0.039, CFI = 0.945, TLI = 0.940 and SRMR = 0.054. The hypothesis results are shown in Table 6.

The results demonstrate that self-expressive brand positively influenced CBE ( $\beta = 0.300$ ;  $p = 0.0001$ ), supporting  $H_2$ . The results also show that brand trust had a positive

**TABLE 6:** Results of hypotheses testing for social media.

Hypothesis	Structural path	Standardised estimate	SE	<i>t</i>	<i>p</i> -value	Result
H1	BT → CBE	-0.030	0.056	-0.531	0.5950	Not supported
H2	SEB → CBE	0.300	0.055	5.480	0.0001***	Supported
H3	INT → CBE	0.112	0.069	1.625	0.1040	Not supported
H4	BT → SAT	0.268	0.048	5.532	0.0001***	Supported
H5	SEB → SAT	0.052	0.053	0.978	0.3280	Not supported
H6	INT → SAT	0.606	0.047	12.762	0.0001***	Supported
H7	SAT → CBE	0.495	0.076	6.481	0.0001***	Supported

CBE, consumer–brand engagement; SEB, self-expressive brand; INT, brand interactivity; SAT, brand satisfaction; BT, brand trust; SE, standard error.

\*\* Statistically significant at  $p < 0.05$  and \*\*\*  $p < 0.01$ , two-tailed.

**TABLE 7:** Mediation results for social media.

Hypothesis	Satisfaction as a mediator between:	Direct effect						Indirect effect				Result
		Effect	LLCI	ULCI	SE	<i>t</i>	<i>p</i> -value	Effect	LLCI	ULCI	Bootstrap SE	
H8	BT and CBE	0.193	0.126	0.260	0.034	5.633	0.0001	0.238	0.182	0.298	0.030	Partial mediation
H9	SEB and CBE	0.290	0.228	0.351	0.031	9.293	0.0001	0.193	0.149	0.241	0.023	Partial mediation
H10	INT and CBE	0.244	0.192	0.308	0.029	6.308	0.0001	0.247	0.192	0.308	0.029	Partial mediation

LLCI, lower-level confidence interval; ULCI, upper-level confidence interval; BT, brand trust; SEB, self-expressive brand; CBE, consumer–brand engagement; SAT, brand satisfaction; SE, standard error.

effect on brand satisfaction ( $\beta = 0.268$ ;  $p = 0.0001$ ), thereby supporting  $H_4$ ; that brand interactivity positively affected satisfaction ( $\beta = 0.606$ ;  $p = 0.0001$ ), in support of  $H_6$  and that satisfaction had a positive effect on CBE ( $\beta = 0.495$ ;  $p = 0.0001$ ), supporting  $H_7$ .

As illustrated in Table 6, three of the hypothesised relationships were not statistically significant: brand trust to CBE ( $\beta = -0.030$ ;  $p = 0.595$ ), brand interactivity to CBE ( $\beta = 0.112$ ;  $p = 0.104$ ) and self-expressive brands to brand satisfaction ( $\beta = 0.052$ ;  $p = 0.328$ ).  $H_1$ ,  $H_3$  and  $H_5$  were not supported.

### Mediation analysis for the social media context

Like the smartphone context, the mediating effect of brand satisfaction was also examined (Table 7).

The mediation results show that the indirect effects of brand trust ( $\beta = 0.238$ ; CI = 0.182 to 0.298), self-expressive brand ( $\beta = 0.193$ ; CI = 0.149 to 0.241) and brand interactivity ( $\beta = 0.247$ ; CI = 0.192 to 0.308) on CBE through satisfaction were statistically significant and did not contain zero, suggesting mediation.

The results show the partial mediation effect of satisfaction in all the proposed relationships, as the direct effects were significant. Thus, the paths between brand trust ( $\beta = 0.193$ ; CI = 0.126 to 0.260), self-expressive brand ( $\beta = 0.290$ ; CI = 0.228 to 0.351) and brand interactivity to CBE ( $\beta = 0.244$ ; CI = 0.192 to 0.308) were partially mediated by satisfaction, as hypothesised. The results thus supported  $H_8$ ,  $H_9$  and  $H_{10}$ .

## Conclusion

Previous research (France et al. 2016:123; Ndhlovu & Maree 2024:954) agrees with CBE's roots in the narrative of consumer-brand value co-creation, which implies that its drivers should be consumer-based and firm-initiated. Unexpectedly, in contrast to previous research (De Oliveira Santini et al. 2020:1213; Nyadzayo et al. 2020:570), the

findings show that the relationship between brand trust and CBE is not significant in either context. These findings imply that customers are driven by factors other than brand trust to engage with the brand.

The findings show that self-expressive brand positively affects CBE in the social media context, agreeing with prior research (Algharabat et al. 2020:9; Nyadzayo et al. 2020:570). This finding shows that consumers see social media brands as an extension of self, enhancing their relationship with the brand and increasing engagement. However, for the smartphone context, the findings demonstrate that self-expressive brand drives only CBE reasoned behaviour. This implies that smartphone users who view the brand as reflecting their self-image (individual and social) engage with the brand at a reasoned behavioural level. This means that they think about and act positively towards the brand.

Contrasting previous studies (France et al. 2016:131; Gómez et al. 2019:204; Islam & Rahman 2017:96), interactivity was not a significant driver of CBE for social media or for CBE affection for smartphones. However, brand interactivity positively influenced CBE reasoned behaviour. This implies that smartphone users have a cognitive rather than affective appreciation when the firm initiates interaction, and this influences the place of the brand in the consumer's mind, affecting their behaviour.

The findings show that, in both contexts, brand interactivity and brand trust positively influence brand satisfaction, subsequently affecting CBE favourably. These findings correspond with previous studies (De Oliveira Santini et al. 2020:1219; Kim et al. 2015:949). This highlights the significance of brand trust and interactivity in influencing brand satisfaction. The positive effect of brand satisfaction on CBE validates the argument that brand satisfaction is a strong predictor of CBE (De Oliveira Santini et al. 2020:1218; Kumar et al. 2019:146).

In the smartphone context, the findings of the study show that despite the effect size being small, self-expressive brand relates significantly and negatively to brand satisfaction, in contrast to the literature (Wang et al. 2019:377). This indicates that when consumers view a smartphone brand as a part of their identity, their satisfaction with that brand tends to decline, but the effect of this decline is limited.

The post hoc analysis findings reveal the mediating role of brand satisfaction in the effect of brand trust, self-expressive brand and brand interactivity on CBE. These findings complement prior research that argued that brand satisfaction plays a central role in the relationship between brand trust and CBE (De Oliveira Santini et al. 2020:1218). It furthers the extant knowledge by also examining brand satisfaction as a mediator in the relationships of self-expressive brand and brand interactivity with CBE for a more holistic view.

For social media, the mediation was partial for all three relationships, suggesting that while satisfaction plays a large role, there may be parallel factors that also mediate these relationships for service brands. Similarly, for the smartphone context, satisfaction partially mediated the relationships of brand trust with both CBE dimensions and the relationships of self-expressive brand and interactivity with CBE reasoned behaviour.

Satisfaction fully mediated the relationships between brand interactivity and self-expressive brand with CBE affection. The full mediation infers that when consumers are interacting with the brand or when they identify with the brand, they must be satisfied in order to engage with the brand emotionally.

These findings emphasise the significance of brand satisfaction in the CBE process. Particularly, the brand trust-CBE result signifies that satisfaction is a pivotal mechanism for brand trust in driving CBE. An important insight from this is that brand trust seems to act as an enabler rather than a driver, *per se*, as satisfaction is the factor that strengthens the motivation to engage with the brand.

In aggregate, the findings suggest that brand satisfaction is a critical factor for marketers to consider in CBE. This implies that consumers must be satisfied with their experiences involving the brand, as they co-create value (Troisi et al. 2019:98), which subsequently affects their brand engagement. This insight aligns with the S-D logic perspective, as the narrative of co-creation posits that the actors in the customer-brand relationship actively engage to co-create value that is mutually beneficial (Vargo & Lusch 2016:7).

### Scholarly implications

This research examined the mediating role of brand satisfaction, thereby adding valuable insights to the growing CBE literature. The literature contains a single research study that has investigated the mediation of brand satisfaction in

the relationship between brand trust and CBE (De Oliveira Santini et al. 2020:1219). No evidence was found of research that has empirically investigated the mediating effect of brand satisfaction on the relationships between self-expressive brand and brand interactivity, and CBE. Thus, this research provides novel insights into the significance of brand satisfaction in the CBE process. It casts light on the underlying mechanism through which CBE is driven and shows that satisfaction is a key component facilitating CBE in customer-brand relationships. Furthermore, research from a developing country perspective enhances the scholarly conversations on CBE, which have been mostly characterised by studies from the developed world (Islam & Rahman 2016:2013).

### Managerial implications

The findings inform managers about the importance of self-expressive brand as a key driver of CBE in the social media context. Self-expressive consumers co-create value with the firm; thus, managers of social media brands should consider providing platforms that enable consumers to express themselves. In addition, this research demonstrates the significance of self-expressive brands in influencing consumers' cognitive engagement behaviour in the smartphone context. Smartphone brand managers are advised to augment elements of their product offering that will reflect and enhance consumers' self-image. Thus, they should be able to create customisation features that enable the consumer to immerse themselves in the brand and view it as improving and reflecting their self-image, which eventually leads to engagement behaviours that promote brand image.

Smartphone brand managers should initiate two-way communication and be responsive to consumers' interactions with the brand. Therefore, it is recommended that the narrative of value co-creation be at the centre of building and nurturing consumer-brand relationships.

An important insight is that satisfaction was proven to be fundamental to the CBE process. Satisfaction mediated the effects of brand trust, self-expressive brand and brand interactivity on CBE in both contexts. It is thus imperative that brand managers focus on satisfying their existing consumers as a strategic priority, as satisfied consumers are likely to engage with the brand. Accordingly, managers should develop a co-creative culture with their consumers by providing platforms both online (online review processes) and offline (pop-up shops) so that consumers can share their ideas and experiences with the brand and other consumers within the service ecosystem to enhance brand satisfaction.

### Limitations and future research

As with any research, this study has limitations that provide future research opportunities. The use of convenience sampling

limits generalisability beyond the study scope. This research focused on the South African context of smartphone and social media brands. Therefore, to externally validate the proposed model and to generalise this study's results, future research could consider other contexts in the service and product brands spectrum (e.g., the retail sector, automobiles, fashion and electronic devices) across different geographic settings.

This research model was developed based on S-D logic. However, given the interactive nature of CBE and the service exchanges between various actors in CBE, future research could combine S-D logic with social exchange theory to ground the CBE conceptual framework. In addition, this research was limited to only three proposed drivers of CBE; future research should consider including other related constructs, such as brand values, brand love, service quality or perceived value, into the model. The drivers of CBE can be a combination of consumer-centred and firm-driven, as applied in this study. Regarding firm-driven drivers, future research could consider incorporating employee engagement in the model as a potential driver of CBE. Satisfaction was the only mediator tested, and as it was a partial mediator for the social media context, future research could examine other possible mediators such as brand love, brand authenticity, brand knowledge and brand individuality, especially in service contexts.

## Acknowledgements

The authors, with much gratitude, acknowledge the assistance of Dr Marthi Pohl and Dr Stefanie Kuhn in the statistical analyses.

This article is partially based on the author's thesis entitled "An investigation into consumer brand engagement: scale refinement, drivers and outcomes" towards the degree of Doctor of Philosophy in Marketing Management, in the Department of Marketing Management, University of Pretoria, South Africa, on 14 September 2021, with supervisor Prof. Tania Maree.

## Competing interests

The authors reported that they received funding from the National Research Foundation (NRF) of South Africa, which may be affected by the research reported in the enclosed publication. The author has disclosed those interests fully and has implemented an approved plan for managing any potential conflicts arising from their involvement. The terms of these funding arrangements have been reviewed and approved by the affiliated university in accordance with its policy on objectivity in research.

## Authors' contributions

T.N. conceived the presented idea as part of a PhD study under the supervision of T.M. T.N. developed the theory and performed the data collection. T.N. and T.M. verified the analytical methods with the technical assistance of statisticians. T.M. supervised the reporting of the findings of this work. Both authors, T.N. and T.M., discussed the results and contributed to the final manuscript.

## Funding information

The authors acknowledge that funding was supplied by the NRF of South Africa (grant number: 118008) for the purposes of data collection and assistance with statistical analyses.

## Data availability

The data that support the findings of this study are not openly available because of the institution's policy of storing datasets in a secure institutional repository and are available from the corresponding author, T.N., upon reasonable request.

## Disclaimer

The views and opinions expressed in this article are those of the authors and are the product of professional research. It does not necessarily reflect the official policy or position of any affiliated institution, funder, agency or publisher. The authors are responsible for this article's results, findings and content.

## References

- Agyei, J., Sun, S., Penney, E.K., Abrokwah, E. & Ofori-Boafo, R., 2021, 'Linking CSR and customer engagement: The role of customer-brand identification and customer satisfaction', *Sage Open* 11(1), 1–16. <https://doi.org/10.1177/21582440211018300>
- Algharabat, R., Rana, N.P., Alalwan, A.A., Baabdullah, A. & Gupta, A., 2020, 'Investigating the antecedents of customer brand engagement and consumer-based brand equity in social media', *Journal of Retailing and Consumer Services*, 53, 101767. <https://doi.org/10.1016/j.jretconser.2019.01.016>
- Ashaduzzaman, M., Thaichon, P., Weaven, S., Jebarajakirthy, C., Ross, M., Maseeh, H.I. et al., 2024, 'Service-dominant logic and customer engagement based value proposition framework in peer-to-peer accommodation: A two-study approach', *Journal of Consumer Behaviour* 23(6), 3232–3252. <https://doi.org/10.1002/cb.1889>
- Becerra, E.P. & Badrinarayanan, V., 2013, 'The influence of brand trust and brand identification on brand evangelism', *Journal of Product & Brand Management* 22(5), 371–383. <https://doi.org/10.1108/JPBM-10-2013-0430>
- Behnam, M., Hollebeek, L.D., Clark, M.K. & Farabi, R., 2020, 'Exploring customer engagement in the product vs. service context', *Journal of Retailing and Consumer Services* 60, 102456. <https://doi.org/10.1016/j.jretconser.2020.102456>
- Belk, R.W., 2013, 'Extended self in a digital world', *Journal of Consumer Research* 40(3), 477–500. <https://doi.org/10.1086/671052>
- Bergel, M., Frank, P. & Brock, C., 2019, 'The role of customer engagement facets on the formation of attitude, loyalty and price perception', *Journal of Services Marketing* 31(8), 890–903. <https://doi.org/10.1108/JSM-11-2018-0336>
- Brodie, R.J., Fehrer, J.A., Jaakkola, E. & Conduit, J., 2019a, 'Actor engagement in networks: Defining the conceptual domain', *Journal of Service Research* 22(2), 173–188. <https://doi.org/10.1177/1094670519836141>
- Brodie, R.J., Löbler, H. & Fehrer, J.A., 2019b, 'Evolution of service-dominant logic: Towards a paradigm and metatheory of the market and value cocreation?', *Industrial Marketing Management* 79, 3–12. <https://doi.org/10.1016/j.indmarman.2018.12.007>
- Carroll, B.A. & Ahuvia, A.C., 2006, 'Some antecedents and outcomes of brand love', *Marketing Letters* 17(2), 79–89. <https://doi.org/10.1007/s11002-006-4219-2>
- Cheung, M.L., Pires, G.D., Rosenberger, P.J. & De Oliveira, M.J., 2020, 'Driving consumer-brand engagement and co-creation by brand interactivity', *Marketing Intelligence & Planning* 38(5), 523–541. <https://doi.org/10.1108/MIP-02-2019-0131>
- De Oliveira Santini, F., Ladeira, W.J., Pinto, D.C., Herter, M.M., Sampaio, C.H. & Babin, B.J., 2020, 'Customer engagement in social media: A framework and meta-analysis', *Journal of the Academy of Marketing Science* 48(6), 1211–1228. <https://doi.org/10.1007/s11747-019-00723-4>
- Fernandes, T. & Moreira, M., 2019, 'Consumer brand engagement, satisfaction and brand loyalty: A comparative study between functional and emotional brand relationships', *Journal of Product & Brand Management* 28(3), 274–286. <https://doi.org/10.1108/JPBM-02-2018-1802>
- Fornell, C. & Larcker, D.F., 1981, 'Evaluating structural equation models with unobservable variables and measurement error', *Journal of Marketing Research* 18(1), 39–50. <https://doi.org/10.2307/3151312>
- France, C., Merrilees, B. & Miller, D., 2016, 'An integrated model of customer-brand engagement: Drivers and consequences', *Journal of Brand Management* 23(2), 119–136. <https://doi.org/10.1057/bm.2016.2>

- Gómez, M., Lopez, C. & Molina, A., 2019, 'An integrated model of social media brand engagement', *Computers in Human Behavior* 96, 196–206. <https://doi.org/10.1016/j.chb.2019.02.005>
- Hair, J.F., Jr., Black, W.C., Babin, B.J. & Anderson, R.E., 2019, *Multivariate data analysis*, Cengage, Andover, Hampshire.
- Hayes, A.F., 2014, *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*, Guilford Press, New York, NY.
- Hayes, A.F., Montoya, A.K. & Rockwood, N.J., 2017, 'The analysis of mechanisms and their contingencies: PROCESS versus structural equation modeling', *Australasian Marketing Journal* 25(2), 76–81. <https://doi.org/10.1016/j.ausmj.2017.02.002>
- Hollebeek, L.D., 2011, 'Demystifying customer brand engagement: Exploring the loyalty nexus', *Journal of Marketing Management* 27(7–8), 785–807. <https://doi.org/10.1080/0267257X.2010.500132>
- Hollebeek, L.D., Hammedi, W. & Sprott, D.E., 2023, 'Consumer engagement, stress, and conservation of resources theory: A review, conceptual development, and future research agenda', *Psychology & Marketing* 40(5), 926–937. <https://doi.org/10.1002/mar.21717>
- Hollebeek, L.D., Srivastava, R.K. & Chen, T., 2019, 'S-D logic-informed customer engagement: integrative framework, revised fundamental propositions, and application to CRM', *Journal of the Academy of Marketing Science* 47(1), 161–185. <https://doi.org/10.1007/s11747-018-0600-8>
- Islam, J.U. & Rahman, Z., 2016, 'The transpiring journey of customer engagement research in marketing', *Management Decision* 54(8), 2008–2034. <https://doi.org/10.1108/MD-02-2016-0083>
- Islam, J.U. & Rahman, Z., 2017, 'The impact of online brand community characteristics on customer engagement: An application of Stimulus-Organism-Response paradigm', *Telematics and Informatics* 34(1), 96–109. <https://doi.org/10.1016/j.tele.2016.05.007>
- Islam, J.U., Hollebeek, L.D., Rahman, Z., Khan, I. & Rasool, A., 2019, 'Customer engagement in the service context: An empirical investigation of the construct, its antecedents and consequences', *Journal of Retailing and Consumer Services* 50, 277–285. <https://doi.org/10.1016/j.jretconser.2019.05.021>
- Jaakkola, E. & Alexander, M., 2014, 'The role of customer engagement behavior in value co-creation', *Journal of Service Research* 17(3), 247–261. <https://doi.org/10.1177/1094670514529187>
- Jung, N.Y., Kim, S. & Kim, S., 2014, 'Influence of consumer attitude toward online brand community on revisit intention and brand trust', *Journal of Retailing and Consumer Services* 21(5), 581–589. <https://doi.org/10.1016/j.jretconser.2014.04.001>
- Katsifaraki, G.D. & Theodosiou, M., 2024, 'The role of service-dominant logic strategic orientations in driving customer engagement in online retailing', *Journal of Interactive Marketing* 59, 99–115. <https://doi.org/10.1016/j.intmar.2023.12.005>
- Kaur, H., Paruthi, M., Islam, J. & Hollebeek, L.D., 2020, 'The role of brand community identification and reward on consumer brand engagement and brand loyalty in virtual brand communities', *Telematics and Informatics* 46, 101321. <https://doi.org/10.1016/j.tele.2019.101321>
- Kim, D.J., 2012, 'An investigation of the effect of online consumer trust on expectation, satisfaction, and post-expectation', *Information Systems and e-Business Management* 10(2), 219–240. <https://doi.org/10.1007/s10257-011-0172-5>
- Kim, M., Chang, Y., Park, M.-C. & Lee, J., 2015, 'The effects of service interactivity on the satisfaction and the loyalty of smartphone users', *Telematics and Informatics* 32(4), 949–960. <https://doi.org/10.1016/j.tele.2015.02.003>
- Kumar, V., Rajan, B., Gupta, S. & Pozza, I.D., 2019, 'Customer engagement in service', *Journal of the Academy of Marketing Science* 47(1), 138–160. <https://doi.org/10.1007/s11747-018-0601-7>
- Lee, S.-H. & Workman, J.E., 2015, 'Determinants of brand loyalty: self-construal, self-expressive brands, and brand attachment', *International Journal of Fashion Design, Technology and Education* 8(1), 12–20. <https://doi.org/10.1080/17543266.2014.991418>
- Morgan, R.M. & Hunt, S.D., 1994, 'The commitment-trust theory of relationship marketing', *Journal of Marketing* 58(3), 20–38. <https://doi.org/10.1177/002224299405800302>
- Morgan-Thomas, A. & Veloutsou, C., 2013, 'Beyond technology acceptance: Brand relationships and online brand experience', *Journal of Business Research* 66(1), 21–27. <https://doi.org/10.1016/j.jbusres.2012.07.023>
- Mplus, 2008, *Mplus discussion – Confirmatory factor analysis: Second order factors*, viewed 28 June 2021, from <http://www.statmodel.com/discussion/messages/9/425.html?1592521339>.
- Mplus, 2020, *Chi-Square difference testing using the Satorra-Bentler Scaled Chi-Square*, viewed 21 April 2020, from <http://www.statmodel.com/chidiff.shtml>.
- Muthén, L.K. & Muthén, B., 2017, *Mplus user's guide: Statistical analysis with latent variables*, Muthén & Muthén, Los Angeles, CA.
- Ndhlovu, T. & Maree, T., 2022, 'Consumer brand engagement: Refined measurement scales for product and service contexts', *Journal of Business Research* 146, 228–240. <https://doi.org/10.1016/j.jbusres.2022.05.015>
- Ndhlovu, T. & Maree, T., 2024, 'The central role of consumer-brand engagement in product and service brand contexts', *Journal of Marketing Analytics* 12(5), 944–961. <https://doi.org/10.1057/s41270-024-00135-8>
- Nyadzayo, M.W., Leckie, C. & Johnson, L.W., 2020, 'The impact of relational drivers on outcomes of consumer engagement on Instagram', *Journal of Brand Management* 27(7), 561–578. <https://doi.org/10.1057/s41262-020-00200-2>
- Oliveira, M. & Fernandes, T., 2020, 'Luxury brands and social media: Drivers and outcomes of consumer engagement on Instagram', *Journal of Strategic Marketing* 30(4), 389–407. <https://doi.org/10.1080/0965254X.2020.1721030>
- Oliver, R.L., 1999, 'Whence consumer loyalty?', *Journal of Marketing* 63, 33–44. <https://doi.org/10.1177/002224299906300104>
- Pansari, A. & Kumar, V., 2017, 'Customer engagement: The construct, antecedents, and consequences', *Journal of the Academy of Marketing Science* 45(3), 294–311. <https://doi.org/10.1007/s11747-016-0485-6>
- Posada, D. & Buckley, T.R., 2004, 'Model selection and model averaging in phylogenetics: Advantages of Akaike information criterion and Bayesian approaches over likelihood ratio tests', *Systematic Biology* 53(5), 793–808. <https://doi.org/10.1080/10635150490522304>
- Rather, R.A., 2019, 'Consequences of consumer engagement in service marketing: An empirical exploration', *Journal of Global Marketing* 32(2), 116–135. <https://doi.org/10.1080/08911762.2019.1569652>
- Ruane, L. & Wallace, E., 2015, 'Brand tribalism and self-expressive brands: Social influences and brand outcomes', *Journal of Product & Brand Management* 24(4), 333–348. <https://doi.org/10.1108/JPBM-10-2014-0740>
- Shiu, E., Pervan, S.J., Bove, L.L. & Beatty, S.E., 2011, 'Reflections on discriminant validity: Reexamining the Bove et al., (2009) findings', *Journal of Business Research* 64(5), 497–500. <https://doi.org/10.1016/j.jbusres.2010.02.009>
- Shukla, P., Banerjee, M. & Singh, J., 2016, 'Customer commitment to luxury brands: Antecedents and consequences', *Journal of Business Research* 69(2), 323–331. <https://doi.org/10.1016/j.jbusres.2015.07.013>
- Sprott, D., Czellar, S. & Spangenberg, E., 2009, 'The importance of a general measure of brand engagement on market behaviour: Development and validation of a scale', *Journal of Marketing Research* 46(4), 92–104. <https://doi.org/10.1509/jmkr.46.4.92>
- Srivastava, K. & Sharma, N.K., 2013, 'Service quality, corporate brand image, and switching behaviour: The mediating role of customer satisfaction and repurchase intention', *Services Marketing Quarterly* 34(4), 274–291. <https://doi.org/10.1080/15332969.2013.834843>
- Storbacka, K., Brodie, R.J., Böhmman, T., Maglio, P.P. & Nenonen, S., 2016, 'Actor engagement as a microfoundation for value co-creation', *Journal of Business Research* 69(8), 3008–3017. <https://doi.org/10.1016/j.jbusres.2015.11.011>
- Touni, R., Kim, W.G., Choi, H.-M. & Ali, M.A., 2019, 'Antecedents and an outcome of customer engagement with hotel brand community on Facebook', *Journal of Hospitality & Tourism Research* 44(2), 278–299. <https://doi.org/10.1177/1096348018759778>
- Troisi, O., Santovito, S., Carrubbo, L. & Sarno, D., 2019, 'Evaluating festival attributes adopting SD logic: The mediating role of visitor experience and visitor satisfaction', *Marketing Theory* 19(1), 85–102. <https://doi.org/10.1177/1470593118793756>
- Van Tonder, E. & De Beer, L.T., 2018, 'New perspectives on the role of customer satisfaction and commitment in promoting customer citizenship behaviours', *South African Journal of Economic and Management Sciences* 21(1), 1–11. <https://doi.org/10.4102/sajems.v21i1.1972>
- Vargo, S.L. & Lusch, R.F., 2016, 'Institutions and axioms: An extension and update of service-dominant logic', *Journal of the Academy of Marketing Science* 44(1), 5–23. <https://doi.org/10.1007/s11747-015-0456-3>
- Veloutsou, C., 2015, 'Brand evaluation, satisfaction and trust as predictors of brand loyalty: The mediator-moderator effect of brand relationships', *Journal of Consumer Marketing* 32(6), 405–421. <https://doi.org/10.1108/JCM-02-2015-1275>
- Wang, Y.-C., Qu, H. & Yang, J., 2019, 'The formation of sub-brand love and corporate brand love in hotel brand portfolios', *International Journal of Hospitality Management* 77, 375–384. <https://doi.org/10.1016/j.ijhm.2018.08.010>
- Wolf, E.J., Harrington, K.M., Clark, S.L. & Miller, M.W., 2013, 'Sample size requirements for structural equation models: An evaluation of power, bias, and solution propriety', *Educational and Psychological Measurement* 76(6), 913–934. <https://doi.org/10.1177/0013164413495237>
- Zhao, X., Lynch Jr, J.G. & Chen, Q., 2010, 'Reconsidering Baron and Kenny: Myths and truths about mediation analysis', *Journal of Consumer Research* 37(2), 197–206. <https://doi.org/10.1086/651257>