Negative online brand engagement: conceptualisation, scale development and validation

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Abstract

Purpose – Negative brand engagement represents a pervasive and persistent feature of interactivity in online contexts. Although existing research suggests that consumer negativity is potentially more impactful or detrimental to brands than its positive counterpart, few studies have examined negative brand-related cognitions, feelings and behaviours. Building on the concept of brand engagement, this study aims to operationalise negative online brand engagement.

Design/methodology/approach – This paper presents the results of nine studies that contributed to the development and validation of the proposed scale. Building on the concept of engagement, Studies 1–3 enhanced the construct conceptualisation and generated items. Study 4 involved validation with an academic expert panel. The process of measure operationalisation and validation with quantitative data was completed in Studies 5–8. Finally, the scale's nomological validity was assessed in Study 9.

Findings – The results confirm the multidimensional nature of negative online brand engagement. The validated instrument encompasses four dimensions (cognition, affection, online constructive behaviour and online destructive behaviour), captured by 17 items.

Originality/value – Progress in understanding and dealing with negative online brand engagement has been hampered by disagreements over conceptualisation and the absence of measures that capture the phenomenon. This work enhances managerial understanding of negativity fostering strategies that protect brand engagement and improve firm performance.

Keywords Negative brand engagement, Online context, Conceptualisation, Scale development, Scale validation

Paper type Research paper

1. Introduction

In recent years, engagement has emerged as an important concept in marketing, garnering increasing research interest (Hollebeek *et al.*, 2022). While definitions and perspectives vary, the dominant conception asserts that consumer engagement has an interactive nature and is a context-dependent construct encompassing consumers' cognitive, affective and behavioural investment in specific interactions with a focal engagement object (Hollebeek *et al.*, 2023). Brands are a major focal object of engagement (Algharabat *et al.*, 2018; Wang *et al.*, 2022) in various online and offline contexts, (Dessart *et al.*, 2019; Hollebeek, 2011a, 2011b; Hollebeek *et al.*, 2022; Morgan-Thomas *et al.*, 2020). Brand engagement may take in a bipolar fashion (Naumann *et al.*, 2020). Positive brand engagement occurs when consumers' brand-related cognitions, affections and behaviours are favourable to the brand (Dessart *et al.*, 2016), while negative brand engagement denotes unfavourable or disapproving sentiments and behaviours (Do *et al.*, 2020; Hollebeek and Chen, 2014; Stathopoulou *et al.*, 2017). Negative

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brand engagement offers unique insights into consumer–brand interactions that are undesirable and harmful for brands (Hollebeek *et al.*, 2022, 2023).

Contrasted with significant interest in positive engagement (Cao *et al.*, 2021; Hollebeek *et al.*, 2022; Tuškej and Podnar, 2018), few studies explore negativity (Azer and Alexander, 2020a, 2020b; Bitter and Grabner-Kräuter, 2016; Rahman *et al.*, 2022). Yet, compared with positive brand engagement, negativity can be more widespread (Rissanen and Luoma-Aho, 2016), potentially more impactful (Bowden *et al.*, 2017; Rodrigues and Pinto Borges, 2021) and detrimental to brands and consumers (Naumann *et al.*, 2020), particularly in the interactive online environment (Hollebeek *et al.*, 2022). Consumers may develop various negative brand feelings, such as anger and frustration (Naumann *et al.*, 2020). Their interactivity may include behaviours, such as sharing regret and publically deriding (Azer and Alexander, 2020a), harming brand performance (Naumann *et al.*, 2017a).

The connectivity of the online context, particularly social media (Schultz and Peltier, 2013; Barger *et al.*, 2016), fosters online brand engagement by affording communication and interaction at scale (Baldus *et al.*, 2015; Parihar and Dawra, 2020). Contrasted with other brand-related contexts (Morgan-Thomas *et al.*, 2020), online brand engagement is generally characterised by higher levels of participation (Swaminathan *et al.*, 2020) and engagement interactivity (Hollebeek *et al.*, 2023). In essence, the online environment fosters new kinds of engagement practices affecting the phenomenon's nature and essence (Hollebeek *et al.*, 2014, 2023; Morgan-Thomas *et al.*, 2020). Negative engagement in online environments, such as social media, is widespread (Dessart *et al.*, 2020; Liao *et al.*, 2023) and has an idiosyncratic nature (Lievonen *et al.*, 2022).

Despite some progress, several gaps persist in the emergent literature on negative engagement. Most existing conceptions of negativity are either theoretical (Do *et al.*, 2020) or qualitative (Heinonen, 2018), highlighting difficulties in drawing conceptual boundaries or empirically capturing the phenomenon (Bowden *et al.*, 2017). Although confirmatory research on negative engagement has begun to emerge (Azer and Alexander, 2020a, 2020b; Bitter and Grabner-Kräuter, 2016; Kulikovskaja *et al.*, 2023; Naumann *et al.*, 2020; Obilo *et al.*, 2021; Rahman *et al.*, 2022) efforts to capture negative engagement have tended to rely on either proxies (Bitter and Grabner-Kräuter, 2016; Arora and Chakraborty, 2021; Labrecque et al., 2022) or partial measures (Azer and Alexander, 2020a; 2020b). Despite its profound consequences (Baldus *et al.*, 2015; Kumar, 2021, 2022), little is known about the actual domain and boundaries of the concept. Very few studies have robustly conceptualised it and disagreements persist with some authors highlighting the behavioural dimension (Dolan *et al.*, 2016) and others suggesting multiple dimensions and incorporating consumers' unfavourable brand-related thoughts, emotions and behaviours (Do *et al.*, 2020). As recent calls for further research illustrate (Hollebeek *et al.*, 2023; Naumann *et al.*, 2020), scholars are yet to adequately define the concept in general (Bowden *et al.*, 2017; Hollebeek and Chen, 2014) and, specifically, to acknowledge variations with reference to particular objects (i.e. the brand) or contexts (e.g. online).

To address these gaps, this study aims to refine the definition of negative online brand engagement and develop a scale to capture it. Building on research on both positive and negative engagement, the study deploys a robust scale development process to offer an empirical operationalisation. The adopted four-step procedure reports the negative online brand engagement definition and item generation (Step 1), item purification (Step 2), reliability and validity (Step 3) and nomological network and discriminant validity (Step 4).

The study's contribution is threefold. Theoretically, the proposed conceptualisation and operationalisation of negative online brand engagement enhances understanding of negativity and its relationship with other concepts, namely brand disloyalty and happiness. This concurrently addresses extant gaps in the body of knowledge (Heinonen, 2018), calls for theoretical rigour (Hollebeek *et al.*, 2023) and paves the way to future

research on negativity (Hollebeek *et al.*, 2022, 2023) contributing novel insights into the emerging negative engagement literature in marketing (Hollebeek and Chen, 2014; Naumann *et al.*, 2020). Practically, this work enhances managerial knowledge regarding strategies to control negative effects and improve firm performance (e.g. sales growth and superior profitability) (Hollebeek *et al.*, 2014; Rahman *et al.*, 2022).

2. The need for new conceptualisation and operationalisation of negative online brand engagement

Multiple reasons justify the need for refinement of current approaches to negative online brand engagement. The research on consumers' negative engagement in marketing is, only now, emerging and limited (Table I), and past studies tend to be conceptual (Do *et al.*, 2020) or qualitative (Heinonen, 2018). Only rarely do the definitions refer to the negative nature of the engagement (see Table I for exception) and they tend to neglect the differences between online and offline contexts (Naumann *et al.*, 2017a, 2017b, 2020).

To date, a handful of quantitative papers (Azer and Alexander, 2020a, 2020b; Bitter and Grabner-Kräuter, 2016; Kulikovskaja *et al.*, 2023; Naumann *et al.*, 2020; Rahman *et al.*, 2022) have focused on consumers' negative engagement. The concept has been typically captured by proxy measures, for example, posting behaviour including negative posts (Bitter and Grabner-Kräuter, 2016; Arora and Chakraborty, 2021; Labrecque *et al.*, 2022) or the number of complaints (Rahman *et al.*, 2022). Others have used experimental designs with stimuli to demonstrate negative behaviours and investigate consumers' reactions to this material (Azer and Alexander, 2020a, 2020b), omitting the negative engagement itself. One study offered a more holistic approach and deployed an adapted scale that included items from a variety of sources but lacked thorough conceptualisation, development or validation (Naumann *et al.*, 2020).

Only one study developed a psychometric measure of negative engagement. Obilo *et al.* (2021) have suggested a scale encompassing four dimensions, two on engagement activities (content engagement, co-creation) and two on engagement valence (advocacy and negative engagement). Although useful, the instrument builds on a behavioural tradition conceiving engagement as behaviour (Algesheimer *et al.*, 2005). The scale is, therefore, misaligned with the dominant conception of engagement as a multidimensional concept that includes cognition and emotions (Hollebeek *et al.*, 2022, 2023). Other concerns include specificity (the scale does not exclusively focus on negative engagement) and discriminant validity (the content engagement and negative engagement dimensions are potentially related) (Rahman *et al.*, 2022). Given the above, further refinements to the measurement seem justified.

A closer look at the current treatment of negative engagement from other studies reveals several shortcomings. To begin with, insufficient attention has been paid to conceptual boundaries and some confusion persists between negative consumer engagement and related concepts such as disengagement. For instance, past qualitative studies identify both active and passive negative engagement but regard the latter as disengagement (Naumann *et al.*, 2017a, 2017b). However, other studies report differences between disengagement and passive negative engagement, where the former focuses on the absence of engagement and ending the relationship with focal objects (Bowden *et al.*, 2015; Florenthal, 2019; Rissanen and Luoma-Aho, 2016), while the latter reflects a lower level of engagement (Dolan *et al.*, 2019; Schamari and Schaefers, 2015; Shahbaznezhad *et al.*, 2021).

Concept dimensionality is also an issue (see Table I). Some scholars have taken a unidimensional approach, defining negative engagement as consumers' unfavourable behavioural manifestations during interactions (e.g. Bitter and Grabner-Kräuter, 2016; Dolan *et al.*, 2016). For example, Rahman *et al.* (2022) operationalise negativity through complaints, thus disregarding negative behaviour of a different nature (Arora and Chakraborty, 2021; Labrecque *et al.*, 2022). Few empirical studies view negative engagement as a multidimensional construct

Articles	Paper type	Objects	Construct	Context	Definitions
Van Doorn *et al.*, 2010	Conceptual	Brand	Customer engagement behaviour	N/A	Customers' behavioural manifestation toward a brand or firm, beyond purchase, resulting from motivational drivers
Hollebeek and Chen, 2014	Qualitative	Brand	Brand engagement	Online	Consumers' unfavourable brand-related thoughts, feelings and behaviours during brand interactions
De Villiers, 2015	Qualitative	Brand	Consumer brand engagement	Online	Consumers' negatively valenced cognitions, emotions and behaviours toward the brand, which can be active or passive
Dolan *et al.*, 2016	Conceptual	Brand	Social media engagement behaviour	Online	Consumers' unfavourable brand-related behaviours during interactions
Bitter and Grabner-Kräuter, 2016	Quantitative	Brand	Customer engagement behaviour	Online	Behavioural manifestations of customer engagement on social networking sites
Rissanen and Luoma-Aho, 2016	Qualitative	Organisation	Consumer engagement	Online	Negative behavioural manifestations such as protests and sharing negative information about the organisation
Naumann *et al.*, 2017a	Qualitative	Service provider, community	Consumer engagement	Offline	Consumers' strong negative thoughts, feelings and behaviours towards their service provider
Naumann *et al.*, 2017b	Qualitative	Organisation, community	Customer engagement	Offline	A negatively valenced manifestation of engagement consisting of cognitive, emotional and behavioural components
Bowden *et al.*, 2017	Qualitative	Brand, brand community	Consumer engagement	Online	A consumer's negatively valenced cognitive, emotional and behavioural investments during or related to interactions with focal objects or agents
Azer and Alexander, 2018	Qualitative	Brand	Customer engagement behaviour	Online	Negative engagement behaviours include discrediting, deriding, expressing regret, endorsing competitors, dissuading and warning
Heinonen, 2018	Qualitative	Interests	Consumer engagement	Online	Community members' cognitive, emotional and behavioural investments in a specific area of interest
Do *et al.*, 2020	Conceptual	Brand	Customer engagement behaviour	Offline	A customer's unfavourable thoughts, feelings and behaviours towards a service brand or provider result from negative critical events that cause perceived threats to customers
Naumann *et al.*, 2020	Quantitative	Brand, brand community	Customer engagement	Online, offline	Consumers' unfavourable thoughts, feelings and behaviours towards the dual focal objects
Azer and Alexander, 2020a	Quantitative	Service provider	Negative customer engagement behaviour	Online	Customer contributions of resources such as knowledge, skills, experience and time negatively affect other actors' knowledge, expectations and perception about a focal service provider
Azer and Alexander, 2020b	Quantitative	Service provider	Negatively valanced engagement behaviour	Online	Customers beyond the transactional negative behavioural manifestations
Rahman *et al.*, 2022	Quantitative	Brand	Negative customer engagement	Online	Customers' motivation to invest time and resources to bring disappointing service experiences to the attention of relevant authorities in the form of formal complaints to negatively affect other actors' service perception about the firm in question

Table I.
Existing definitions of negative engagement with various objects

Source: Authors' own work

incorporating cognitive, affective and behavioural aspects (e.g. Bowden *et al.*, 2017; Naumann *et al.*, 2020). The multidimensional view that aligns negative engagement with the mainstream conception of positive engagement (Dessart *et al.*, 2016; Hollebeek *et al.*, 2023) seems to represent, now, the dominant approach to negativity. Nonetheless, the multidimensional view is yet to be robustly operationalised.

The absence of robust operationalisation is relevant for several reasons. Construct definition plays a fundamental role in empirical research. The development of a coherent, robust and generalisable theory rests on clearly defined constructs (Bergkvist and Eisend, 2021; Gilliam and Voss, 2013; MacKenzie, 2003). The need for clarity is particularly acute for multidimensional constructs, such as engagement (Hollebeek *et al.*, 2023). When redefining concepts, it is important to avoid two pitfalls: (1) defining the construct solely in terms of its antecedents or outcomes and (2) relying on illustrative examples (MacKenzie, 2003). Unfortunately, some past studies have fallen foul of these principles (e.g. Rissanen and Luoma-Aho, 2016; van Doorn *et al.*, 2010). Clearly, a fresh perspective is needed.

Existing measures of related constructs are a natural starting point for new measure development, and the concept of consumer engagement serves as a useful referent, since existing approaches are inadequate (Frikha, 2019; Haws *et al.*, 2023). Engagement has been typically conceptualised as a three-dimensional construct encompassing cognitions, emotions and behaviours (Barger *et al.*, 2016; Hollebeek *et al.*, 2023) which are directed at an object of engagement, typically a brand (Azer and Alexander, 2020a, 2020b; Rahman *et al.*, 2022). Further, engagement involves a subject of engagement, typically customer or consumer (Heinonen, 2018; Naumann *et al.*, 2020) and occurs in a particular context, for example online (Dessart *et al.*, 2015; Barger *et al.*, 2016) or offline (Naumann *et al.*, 2017b, 2020).

A closer examination of engagement scales rules out adapting or mirroring instruments as possible solutions. Although similarities exist (Table II), there are significant challenges. Considering sentiments, for instance, the affective dimension focuses on emotions with only positive valence (e.g. Dessart *et al.*, 2016; Mirbagheri and Najmi, 2019). The cognitive dimension has been primarily approached as cognitive processing; the items do not reflect its long-term, enduring characteristics (e.g. Dessart *et al.*, 2016; Hollebeek *et al.*, 2014) and do not capture negative thinking (Lourenço *et al.*, 2022). The affective dimension focuses only on positive emotions (e.g. Dessart *et al.*, 2016; Mirbagheri and Najmi, 2019). The indicative behaviours are not related to negative often destructive engagement behaviours (e.g. Azer and Alexander, 2018; Hollebeek *et al.*, 2014; Naumann *et al.*, 2020; Wolter *et al.*, 2023). In addition, many positive statements have no negative equivalent, further hampering adaptation (e.g. learning) (Dessart *et al.*, 2016). Lack of context specificity also matters: although cognitions and affections may not be context specific, studies have shown that engagement behaviours do differ significantly depending on the context (Díaz *et al.*, 2017; Moon *et al.*, 2021).

In sum, the concept of negative online brand engagement requires further refinement and, for several reasons, a full process of measure development is called for. Existing definitions suffer from issues concerning conceptual boundaries and have not taken into account the differences in object contexts. The measurement of positive engagement does provide instruments that can be easily adjusted to capture negativity, even when it has brands as focal objects and the online environment as a context. Consequently, further work is needed to improve both the definition and the measurement of negative online brand engagement. The empirical work that follows addresses these tasks.

3. Scale development process

Following well-established procedures for scale development (Churchill, 1979; DeVellis, 2017; MacKenzie *et al.*, 2011), the study follows a four-step process to reconceptualise negative online brand engagement. Each step consists of several activities (Table III).

Table II.
Indicative articles that reported a quantitative scale development for positive engagement

Article	Focus	Construct	Dimensions of positive engagement and number of items		
			Cognitive	Affective	Behavioural
Algesheimer *et al.*, 2005	Community	Community engagement	-	-	Community engagement (4 items)
Sprott *et al.*, 2009	Brand	Brand engagement	-	Brand engagement in self-concept (8 items)	-
Jahn and Kunz, 2012	Fanpage	Customer engagement	-	-	Fanpage engagement (5 items)
Hollebeek *et al.*, 2014	Brand	Consumer brand engagement	Cognitive processing: a consumer's level of brand-related thought processing and elaboration in a particular consumer/brand interaction. (3 items)	Affection: a consumer's degree of positive brand-related affect in a particular consumer/brand interaction. (4 items)	Activation: a consumer's level of energy, effort and time spent on a brand in a particular consumer/brand interaction. (3 items)
Vivek *et al.*, 2014	Brand	Customer engagement	Conscious attention: the degree of interest the person has or wishes to have in interacting with the focus of their engagement. (3 items)	Enthused participation: the zealous reactions and feelings of a person related to using or interacting with the focus of their engagement. (4 items)	Social connection: enhancement of the interaction based on the inclusion of others with the focus of engagement. (3 items)
Dijkmans *et al.*, 2015	Social media activities	Online engagement	Familiarity with social media activities (1 item)	-	Online following of these activities (1 item)
Dessart *et al.*, 2016	Brand, brand community	Consumer engagement	Set of enduring and active mental states that a consumer experiences. Attention (2 items); Absorption (4 items)	Summative and enduring level of emotions experienced by a consumer. Enthusiasm (3 items); Enjoyment (3 items)	Behavioural manifestations towards an engagement partner. Sharing (3 items); Learning (3 items); Endorsing (4 items)
Schivinski *et al.*, 2016	Brand-related social-media content	Consumer engagement	-	-	Consumption, Contribution, Creation (17 items)
Kumar and Pansari, 2016	Customer, firm	Customer engagement	-	-	Customer purchase, Referral, Influencer, Knowledge behaviour (16 items)
Mirbagheri and Najmi, 2019	Social media activation campaigns	Consumer engagement	Attention: the extent to which a consumer concentrates on, is attentive to, thinks about, and is absorbed or engrossed in a social media activation campaign. (4 items)	Interest and enjoyment: the extent to which consumers become interested in, or excited about a social media activation campaign, as well as the extent to which they derive pleasure and joy from their experiences with it. (4 items)	Participation: consumers' willingness to spend effort and time during the campaign on activities (4 items)
Lourenço *et al.*, 2022	Brand	Brand engagement	Cognitive (3 items)	Emotion (3 items)	Behaviour (3 items)

Source: Authors' own work

Table III.
Scale development process (four-step)

Steps		Methods	Data	Results
Step 1: Definition of negative online brand engagement, Item generation	Activity 1	Literature review on (a) negative and (b) positive consumer engagement	For the period 2000–2020 all papers on negative engagement (31 articles) and 314 articles on positive engagement were selected using a systematic approach (Table IV)	Construct definition, dimensionality and dimensions definitions (Table VI) Generation of the initial set of 171 items
	Activity 2	Online observation (Study 1)	A total of 654 Amazon reviews (73,110 words).	
	Activity 3	Semi-structured interviews with moderators of online anti-brand communities (Study 2)	10 moderators produced 40,231 words of transcription (Table V)	
	Activity 4	Semi-structured interviews with members of online anti-brand communities (Study 3)	15 community members produced 54,506 words of transcription (Table V)	
Step 2: Item purification	Activity 1	Face validity	Ask six anti-brand community members if the item pool is relevant to, can be useful and appropriate for what it intends to measure.	Reduced the 171 to 160 items
	Activity 2	Research team meeting	Thirteen 60-min-long face-to-face meetings between co-authors.	Reduced the 160 to 61 items
	Activity 3	Academic experts panel (Study 4)	29 academic researchers in branding	Reduced the 61 to 32 items
Step 3: Reliability and validity	Activity 1	Pre-test (Study 5)	20 marketing researchers at the UK-based University	All 32 items were retained
	Activity 2	Pilot study (Study 6)	A convenience sample (author's network and snowballing) generated 41 usable responses	No reliability or any other issues concerning administration or response
	Activity 3	Item reduction – Exploratory Factor Analysis (Study 7)	Calibration sample collected from Social Media anti-brand communities (N = 205) (Table VII)	Reduced the 32 to 27 items (Table VIII)
	Activity 4	Item reduction – Confirmatory factor analysis (Study 8)	Both Calibration sample collected from Social Media anti-brand communities (N = 205) and Validation sample collected via snowballing in Social Media (N = 205) (Table VII)	Reduced the 27 to 17 items The 17-item scale exhibited a good fit and properties (Tables IX and X)
Step 4: Nomological network, Discriminant validity	Activity 1	Negative online brand engagement relationships with brand disloyalty and happiness (Study 9)	Validation sample collected from snowballing in Social Media (N = 205) (Table VII)	Nomological validity supported indicating reliable and validity with good fit and properties (Tables XI)

Source: Authors' own work

3.1 Step 1: Definition of negative online brand engagement and item generation

Step 1 includes four activities.

Step 1 (Activity 1): Literature review: negative consumer engagement *and positive consumer engagement.* The process began with the review of negative engagement (Heinonen, 2018; Hollebeek and Chen, 2014; Hollebeek *et al.*, 2022). Focusing on journal articles in academic refereed journals and using five keywords (negative engagement, negative consumer engagement, negative customer engagement, negative brand engagement and negative online engagement), the search generated a total of 31 articles published at the time of review (2022).

Given the limited volume of studies on negative engagement, the literature review was extended to consumer engagement, (Table IV). The search followed a narrow search strategy (Arora and Chakraborty, 2021) focusing on 68 journals ranked in the top 25 per cent in the category "marketing" and 109 journals ranked in the top 20 per cent in the category "strategy and management" in the Scopus 2020 CiteScore ranking, one of the most comprehensive and extensively used ranking instruments (Hollebeek *et al.*, 2023; Pech and Delgado, 2020). The approach enabled a systematic search (Davis *et al.*, 2014; Snyder, 2019; Siddaway *et al.*, 2019) while controlling for the large volume of studies (Hollebeek *et al.*, 2022) and the number of scales reporting positive engagement with various focal objects (Ferreira *et al.*, 2020; Hollebeek *et al.*, 2023).

The search deployed nine keywords (Table IV) developed in three stages: (1) key to positive consumer engagement relevant and the three most widely identified engagement dimensions (i.e. cognitive, affective and behavioural) themes (Dessart *et al.*, 2019; Morgan-Thomas *et al.*, 2020); (2) assessment of the potentially relevant keywords, considering the brand as the engagement object and the online focus; and (3) discussion of the 11 generated keywords with two marketing experts (two were removed because of the irrelevance of consumer engagement). The adopted exclusion criteria ensured that selected articles relevant to the scope of this research were retained. The search generated 314 articles.

	Marketing	Strategy and management
Inclusion criteria #1 – Data source	Scopus top 25%	Scopus top 20%
Inclusion criteria #2 – Keywords	consumer engagement OR customer engagement OR positive engagement OR online engagement OR brand engagement OR cognitive engagement OR emotional engagement OR affective engagement OR behavioural engagement	
Inclusion criteria #3 – Time period	2000–2020	
Inclusion criteria #4 – Language	English	
Retreated	320	87
Exclusion criteria #1 – Articles with key field mistakes or missing author names	29	43
Retained articles	291	44
Exclusion criteria #2 – Articles outside the marketing/branding areas	3	7
Retained articles	288	37
Exclusion criteria #3 – Articles not focusing on engagement or consumers as the engagement subject	3	8
Retained articles	285	29

Table IV. Criteria for selecting articles on positive consumer engagement

Source: Authors' own work

Step 1 (Activity 2): Online observation (Study 1). The next stage of the development process involved an online observation study. Observation reveals negative online brand engagement behaviour in a real setting generating findings to inform the guides for Study 2. Following Kozinets' (2010) recommendations for site selection (i.e. being active, having recent and regular communications) and to ensure the robustness of findings, the observation concerned consumers' negative online reviews of Samsung and Apple on one of the world's largest e-commerce marketplaces, Amazon. Samsung and Apple were chosen because (1) they are both targets of active negative online engagement, with more negative reviews on Amazon (2019) than other brands attracting negative comments (e.g. Sony, HP, Nike, Starbucks and Nestlé); and (2) they had anti-brand groups on Facebook with more than 1,000 members. Contrasted with other brands that also attract negativity (e.g. Sony, HP, Nike, Starbucks and Nestlé), after an Amazon search, Samsung and Apple had more negative online reviews on Amazon in 2019. Data collection focused on negative reviews, i.e. reviews with rankings of 1* or 2* on a five-point scale (1* = least satisfied, 5* = highest satisfied) written between July and September 2019. In addition to the standard text, the data captured textual paralanguage (e.g. emoji), use of all capital letters and punctuation marks for emphasis (e.g. "ABSOLUTE RUBBISH!!!!!!!!") and interjections (e.g. "umm", "hmm") to reflect deep sentiments. The data set included a total of 481 reviews (63,450 words) for Samsung and 173 (9,660 words) for Apple products. The data collection stopped when information saturation was reached for each brand and in total (i.e. no new themes or coding emerged for 30 posts) (Creswell, 2007; Fusch and Ness, 2015). The data set included a total of 481 reviews (63,450 words) for Samsung products and 173 reviews (9,660 words) for Apple products, all with rankings of 1* or 2* on a five-point scale (1* = least satisfied, 5* = highest satisfied) written from July to September 2019.

Data analysis used thematic coding with existing literature on consumer engagement providing the list of initial codes. Line-by-line coding began with the existing but generated new codes when the existing concepts insufficiently captured the meaning (Clarke and Braun, 2017). NVivo software was used to record codes and themes and then Excel to summarise and organise findings.

Step 1 (Activities 3 and 4): Semi-structured interviews with moderators (Study 2) and members (Study 3) of online anti-brand communities. Interviews aimed to further inform the construct definition, its dimensionality and item generation. To secure negative online brand engagement, participants, 10 moderators (Study 2) and 15 community members (Study 3), were recruited from anti-brand communities on a social media platform (Table V). Facebook was chosen because it is the largest and most widely used social media platform internationally (Lee *et al.*, 2018). Within anti-brand communities, the study targeted members who were highly involved (e.g. high visit frequencies, more time spent on the group) and demonstrated negative online brand engagement (Wong *et al.*, 2018), with moderators typically more involved than members with high anti-brand community activities knowledge. Moderators were contacted first because of their deep anti-brand engagement, their role in the communities and ability to help with member recruitment.

Both types of participants received invitations to take part in the study via private messages on Facebook or email. Interviews were conducted primarily through video conferencing, except for two with participants with hearing issues where text was used. Normal discussion, interjections (e.g. umm, hmm), non-standard English, voice tone (pitch) changes and vocalizations were recorded and considered in the analysis when relevant. Following data collection and analysis, five respondents were contacted to assess the accuracy of their interview transcripts and the interpretation of the quotes. The interviews with moderators and members produced a total of 40,231 and 54,506 words of transcription, respectively (Table V).

Table V.
Qualitative phase: respondents' demographics (10 moderators and 15 members of social media hosted anti-brand communities)

No.	Name	Gender	Nationality	Age group	Employment	Facebook group	Number of words (transcript)	Interview duration (min)
1	Moderator 1	F	US	36–45	At the hotel	I Hate Walmart With A Passion	4,322	36
2	Moderator 2	M	UK	26–35	Engineer	We hate BT broadband speed/ Openreach	5,198	41
3	Moderator 3	F	UK	56–65	Manager	Nestlé Boycott	1,669	13
4	Moderator 4	M	US	26–35	Financial advisor	Boycott Disney's Star Wars	4,771	35
5	Moderator 5	F	UK	56–65	Lecturer	Nestlé Boycott	4,352	28
6	Moderator 6	M	UK	56–65	Retired	BT broadband sucks	5,828	39
7	Moderator 7	M	UK	26–35	Vehicle repair	I Hate Apple	3,805	27
8	Moderator 8	M	Kuwait	26–35	Manager	I hate Google (page)	3,272	23
9	Moderator 9	M	UK	36–45	Engineer	Boycott Amazon the tax avoiding pricks	1963	17
10	Moderator 10	M	UK	26–35	Insurance	Apple Sucks (page)	5,051	35
11	Member 1	F	US	46–55	Bus driver	I Hate Walmart With A Passion	3,587	30
12	Member 2	F	US	36–45	Social worker	I Hate Walmart With A Passion	5,281	42
13	Member 3	M	UK	26–35	Fun expert	I Hate Apple	4,615	37
14	Member 4	F	Canada	66–75	Retired	I Hate Walmart With A Passion	4,692	53
15	Member 5	M	US	36–45	Engineer	I Hate Apple	5,158	36
16	Member 6	M	UK	66–75	Retired	Nestlé Boycott	2,848	24
17	Member 7	M	Denmark	36–45	Engineer	I Hate Apple	4,712	39
18	Member 8	M	UK	26–35	Self-employed	BT broadband sucks!	2,774	22
19	Member 9	M	UK	26–35	Recycling officer	Nestlé Boycott	2,892	24
20	Member 10	M	US	46–55	Disabled	Nestlé Boycott	5,904	58
21	Member 11	F	UK	56–65	Library assistant	Nestlé Boycott	5,700	48
22	Member 12	M	US	46–55	IT tech	I Hate Apple	960	by text
23	Member 13	M	US	18–25	At grocery store	Nestlé Boycott	2,472	23
24	Member 14	M	Singapore	26–35	Software consultant	I Hate Apple	3,871	30
25	Member 15	F	UK	36–45	Stay-at-home mother	Nestlé Boycott	1,049	by text

Source: Authors' own work

Data analysis deployed thematic analysis to generate codes and themes and involved back-and-forward iterations between the literature and data to ensure the credibility and thoroughness of data analysis (Clarke and Braun, 2017). It followed six steps: familiarising data, generating initial codes, searching for themes, reviewing themes, defining and naming themes, and producing the report (Braun and Clarke, 2006). NVivo and Excel were used when developing and organising codes and themes.

Step 1-Outcomes. The literature review (Step 1 – Activity 1) and qualitative findings (Step 1 – Activities 2–4) informed the refinement of the negative online brand engagement concept (Table VI). Considering the online context and the brand focus, negative online brand engagement is defined, here, as *consumer negatively valenced brand-related cognition, affection and online behaviour*. The multidimensional view aligns with previous conceptions (Bowden *et al.*, 2017; Naumann *et al.*, 2020) and emerges from the qualitative findings. Specifically, the findings highlight differences among the three dimensions (Table VI), which have not been discussed in previous literature (e.g. Hollebeek and Chen, 2014). They reveal the idiosyncrasy of the online context, supporting the distinct focus on negative online engagement. The qualitative findings also enhance precision illuminating sub-dimensions and, thus, enhancing previous conceptualisations (e.g. Bowden *et al.*, 2017; Naumann *et al.*, 2020). An important outcome of Step 1 is a list of 171 items that potentially capture the various dimensions (Table VI).

3.2 Step 2: Item purification

The second step of the development process involved purificantion and reductions of the 171 items. Three measures ensure the consistency, clarity and parsimony of the item pool.

First, using the definitions of the suggested sub-dimensions, face validity was assessed by six members of online anti-brand communities (four females) identified in Step 1. Taking into account relevance, usefulness and appropriatness reduced the pool of items from 171 to 160 within the three dimensions and six sub-dimensions of negative online brand engagement (Table VI).

Second, each proposed item was evaluated for clarity and alignment with the dimension and definition via thirteen 60-min-long face-to-face meetings between co-authors. The analysis identified inaccuracies, redundancies, repetition and overlaps, particularly within the cognitive and affective dimensions. These evaluations led to further purification of the scale with poorly rated items being removed, reducing the items from 160 to 61 (Table VI).

Third, an academic expert panel (Study 4) evaluated the items. Specifically, the concept definition, dimensions and surviving 61 items were examined by a panel of academic experts who acted as judges (DeVellis, 2017; Rossiter, 2002). A total of 68 branding experts from 19 different countries were contacted and 29 responded. Using a Qualtrics-based survey with structured and open questions, the experts commented on the construct definition, proposed dimensions' and sub-dimensions' structure and definitions. They also rated the suitability of the specific 61 items in terms of clarity and reflection of the sub-dimension's definition by using five-point Likert scale questions (1 = strongly disagree to 5 = strongly agree).

All expert respondents supported the definition and the suggested dimensionality. A threshold of 75 per cent (above 3.75) for clarity and reflection score was used to retain items (Hardesty and Bearden, 2004). Conseqently, 29 items that did not meet the threshold were removed. A total of 32 items, 9, 13 and 10 for the cognitive, affective and behavioural dimensions, respectively, were retained (Table VI).

Table VI.
Dimensions of negative online brand engagement

Dimension	Sub-dimension	Literature influencing the definition	Supporting quotes from Studies 1–3	Number of items Step1 Generated	Step 2 Activity 1	Step 2 Activity 2	Step 2 Activity 3
Cognitive dimension: the level of a consumer's negatively valenced brand-related attention and thinking	Attention: the extent of a consumer being negatively attended to the brand in the online environment	Vivek *et al.*, 2014; Hollebeek *et al.*, 2014; Dessart *et al.*, 2015, Dessart *et al.*, 2016	'As the years progressed, I started to realise that Google is now attracted to the way Apple does which kind of puts me off' (Moderator 10, 31). – Study 2 'The first impression of the Tab A in white was cheap and nasty.' (Samsung 1) – Study 1	32	30	10	4
	Thinking: the extent of a consumer considering negatively of a brand in their mind	Hollebeek and Chen, 2014; Dessart *et al.*, 2015, 2016; Fang, 2017; Stathopoulou *et al.*, 2017; Naumann *et al.*, 2017a	'They thought that the overall storytelling was so poor, that it needs to be recognized that it was poor storytelling. And it ruined their Star Wars experience' (Moderator 4, 30). – Study 2 'Samsung limits the watch too much and forces you to use what they want. This isn't right' (Samsung 2). – Study 1	18	14	7	5
Affective dimension: the degree of a consumer's negative feelings and emotions toward the brand	Diversity of negative feelings: the collection of consumers' overall negative feelings about the brand	Hollebeek and Chen, 2014; Raïes *et al.*, 2015; Baldus *et al.*, 2015; Dessart *et al.*, 2015; Naumann *et al.*, 2017a	'And I am also disappointed in the way that they behave.… I think they are holding the industry back in a lot of ways' (Member 5, 44). – Study 3 'I had my doubts as soon as I powered it on but now after a panel failure after just 3 months I am worried about its longevity' (Samsung 4). – Study1	42	40	23	6
	Negative emotion demonstration: the extent of consumers consciously surface their negative emotions	Hollebeek and Chen, 2014; Raïes *et al.*, 2015; Baldus *et al.*, 2015; Dessart *et al.*, 2015; Naumann *et al.*, 2017a	'ABSOLUTE RUBBISH!!!!!!!! BROKE AFTER A WEEK OF USING THEM! WHAT….A….WASTE….OF….MONEY 😡 😡 😡' (Apple 1). – Study 1 'The connection is TERRIBLE!!!!!!!!!!!!!!!!' (Samsung 5). – Study 1	20	20	11	7
Behavioural dimension: the consumer's negatively valenced constructive and destructive behaviours to a brand in the online environment	Online constructive behaviour: consumers' positively oriented online actions to solve the brand's problem considering one's own concern as well as those of the brand	Romani *et al.*, 2013; Naumann *et al.*, 2017a, Naumann *et al.*, 2017b; Kim and Lim, 2020	'I've written many multi-paragraph essays in the group, so if Apple is monitoring the group or anything like that, then they have certainly gotten my opinion in that respect' (Member 5, 44). – Study 3 'The screen locked and the waiting circle log in the middle of a black screen kicked in..and ran for 12 h during which time I could not do anything' (Apple 2). – Study 1	34	32	5	5
	Online destructive behaviour: consumers' negatively oriented online actions to harm the brand considering one's own concerns	Plé and Cáceres, 2010; Gebauer *et al.*, 2013; Dolan *et al.*, 2016; Naumann *et al.*, 2017a, Naumann *et al.*, 2017b; Zhang *et al.*, 2018	'Sometimes, people can be a little aggressive but it is I HATE Walmart with a passion, so people have that passion…' (Moderator 1, 39) – Study 2 'It ended up with a logo that said, killer Kit Kat and several members change their pro-Facebook profile to the killer profile and posted on Nestle's Facebook page' (Moderator 3, 61). – Study 2	25	24	5	5
Total		-	-	171	160	61	32

Source: Authors' own work

3.3 Step 3: Reliability and validity

The third step of the scale development process was to address the reliability and validity of the developed scale. Quantitative data from an online questionnaire were collected using the retained 32 anchored on seven-point Likert scales (1 = strongly disagree to 7 = strongly agree).

The instrument was pre-tested for clarity with 20 marketing researchers at a UK-based university using Qualtrics (Study 5). Comments included (1) a few minor issues (e.g. wording and grammatical errors); (2) restructuring suggestions to minimise fatigue and confusion; (3) the inclusion of encouraging statements (e.g. you are doing great); and (4) the replacement of some attention check questions because they required knowledge that some respondents might not have (e.g. The sun rotates around the earth). Thus, several adjustments were made.

To detect any possible issues with the questionnaire missed by the researchers and make further adjustments (van Teijlingen and Hundley, 2002), a pilot study was also conducted (Study 6). Qualtrics survey links were sent through emails to a convenience sample (author's network and snowballing). A screening question to ensure that participants satisfied the study requirements was added (if they have engaged negatively with a brand online). The pilot generated 41 usable responses over the period of 1 month.

Following initial evaluation, the main data collection included two different samples accessed through different methods (Churchill, 1979; Gerbing and Anderson, 1988). First, members of social media (Facebook) anti-brand groups were approached as they actively and negatively engage with brands (Wong *et al.*, 2018). In total, 52 anti-brand moderators agreed to share survey links in their groups. The responses comprise the calibration sample. Second, the snowball method was adopted to recruit participants from the authors' contacts on social media (Facebook and LinkedIn). For this validation sample, the screening question *Have you interacted negatively online with a brand (e.g. reading, writing or posting negative comments about the brand)?* was added to ensure respondents' negative online brand engagement. All respondents were fluent in English (mother tongue or commonly used foreign language) and were asked to complete the questionnaire focusing on a specific brand. The calibration respondents focused on a target brand within the anti-brand community; the validation response considered a brand target of negative interaction within the last 6 months.

Forcing respondents to answer all content questions and avoid missing data (Décieux *et al.*, 2015) resulted, as expected, in high dropout rates (Wright, 2005; Beynon *et al.*, 2010). Out of 1,356 individuals who started answering the questionnaire, 502 responses were retained, with only non-scale development-related demographic information missing responses – as expected. Further, respondents who failed to answer any of the attention check questions were excluded, resulting in a usable sample of 410 cases (Table VII).

Data collection deployed several means of addressing the common method variance (Tehseen *et al.*, 2017). In terms of procedural remedies, (1) data were collected from different samples; (2) the anonymity of the respondents was protected to reduce evaluation apprehension; (3) the questionnaire pre-testing supported clear instructions and simple, specific and concise questions; and (4) the items capturing constructs were mixed and the order of variables measurement counterbalanced to neutralise method bias related to items' embeddedness. Further statistical remedies are presented in Section 3.4.

In line with guidleines (Churchill, 1979; Gerbing and Anderson, 1988), the calibration sample (205 responses) was used to examine the patterns of data in exploratory factor analysis (EFA) and confirmatory factor analysis (CFA). The validation sample (205 responses) served as validation material for CFA (Study 8) and for the testing the scale's nomological network and discriminate validity (Study 9). Considering 32 items that form the scale, each sample generates a sufficient item to response ratio (Gorsuch, 1983; Cottrell

	Calibration sample (N = 205) – Facebook anti-brand groups	Validation samples (N = 205) – the authors' contacts
Gender		
Female	119 (58%)	129 (63%)
Male	86 (42%)	76 (37%)
Age		
18–24	45 (21%)	31 (15%)
25–34	73 (36%)	100 (49%)
35–44	36 (18%)	31 (15%)
45–54	23 (11%)	30 (15%)
Over 55	28 (14%)	13 (6%)
Education		
High school	18 (9%)	29 (14%)
Technical training	7 (3%)	12 (6%)
Professional qualification	27 (13%)	22 (11%)
Undergraduate degree	53 (26%)	80 (39%)
Postgraduate degree	83 (41%)	57 (28%)
Other	17 (8%)	5 (2%)
Employment		
Student	46 (22%)	38 (19%)
Self-employed	17 (9%)	21 (10%)
Working full-time	84 (41%)	117 (57%)
Working part-time	20 (10%)	5 (2%)
Out of work	10 (5%)	10 (5%)
Retired	19 (9%)	12 (6%)
Others	5 (2%)	-
N/A	4 (2%)	1 (<1%)
Country of residence		
Canada	5 (2%)	1 (<1%)
China	32 (16%)	157 (77%)
India	10 (5%)	1 (<1%)
UK	56 (27%)	3 (1%)
US	32 (16%)	1(<1%)
Others	61 (30%)	23 (11%)
N/A	9 (4%)	19 (9%)
Respondents selected brand		
Nestlé	25 (12%)	-
Apple	16 (8%)	-
HM	8 (4%)	18 (9%)
Nike	6 (3%)	28 (14%)
Adidas	-	4 (2%)
Zara	-	3 (1%)
Others	150 (73%)	152 (74%)

Table VII. Participants' demographics

Source: Authors' own work

et al., 2007), specifically 6.4:1 cases per item. The samples meet *Bartlett's test of sphericity* ($p < 0.05$) (Sun *et al.*, 2020) and exceed the *Kaiser–Meyer–Olkin Measure of Sampling Adequacy* recommended minimum of 0.6 (Şahan *et al.*, 2019) with 0.938 for the calibration sample and 0.907 for the validation sample.

Study 7 involved EFA to reveal the structure of the negative online brand engagement scale (Costello and Osborne, 2005). Factors were extracted using *Maximum likelihood* with eigenvalues greater than 1 (Henson and Roberts, 2006) and *promax rotation*, as the set of

loadings with this method frequently reveals a simple structure (Finch, 2006). The analysis was performed in two rounds. In the EFA first round, five items were excluded due to cross-loadings (T1, T2, T4) and low loadings (T3, NED7). Further, data revealed that only the behavioural dimension can be measured with sub-dimensions (online constructive behaviour, online destructive behaviour), while the items of cognitive (attention, thinking) and affective (diversity of negative feelings, negative emotion demonstration) sub-dimensions loaded on one factor each, rather than the theorised sub-dimensions. Based on those results, the cognitive and affective dimensions were measured without sub-dimension.

Parsimony is an important criterion when developing a scale (Ferreira *et al.*, 2020). The data show that behavioural sub-dimensions reflect two different drives of action: one aiming to solve problems and sustain the relationship, the other intending to harm the brand (Kim and Lim, 2020; Naumann *et al.*, 2017b). Both were retained as two separate dimensions. Consequently, the measure of negative online brand engagement, developed here, has four dimensions, namely affective (12 items), cognitive (5 items), online destructive behaviour (5 items) and online constructive behaviour (5 items). EFA using only the retained items shows that the four factors explain 78 per cent of the overall variance each with an *eigenvalue* higher than one (Table VIII). The items load at 0.565 or over, onto one dimension with no cross-loadings. The dimensions exhibit good reliability, with Cronbach's α values above 0.916, higher than the advocated cut-off point of 0.70 (Al-Osail *et al.*, 2015; Hair *et al.*, 2013, 2019).

CFA verified the dimensionality of the negative online brand engagement scale (Jackson *et al.*, 2009; Ou *et al.*, 2016). Using both calibration and validation samples, Study 8 estimated the regression coefficients between the items and the latent constructs. Two different methods of estimation were used: covariance-based (CB) and composite-based partial least squares (PLS) structural equation modelling (SEM) (Astrachan *et al.*, 2014; Dash and Paul, 2021). Considering item structure and loading, both methods produced the same results. Considering that CB-SEM is prefered for factor models (Rigdon *et al.*, 2017), the manuscript reports CB results and the details of PLS SEM (SmartPLS) can be found in the supplementary material. The initial CFA on the calibration sample exhibited poor model fit. Redundant or irrelevant items were deleted through model re-specifications with the modification indices. A total of 10 items were deleted and the reduced 17-item scale exhibited a good fit with both calibration and validation samples (with CMIN = 158.112, DF = 113, CMIN/DF = 1.399, CFI = 0.987, NFI = 0.957, TLI = 0.985 and RMSEA = 0.044 and CMIN = 211.949, DF = 111, CMIN/DF = 1.909, CFI = 0.968, NFI = 0.936, TLI = 0.961 and RMSEA = 0.067, respectively). All the standardised regression weights were above the acceptable threshold of 0.5 (Hair *et al.*, 2006) (Table IX).

Further tests of the reliability and validity of the calibration and validation samples (Table X) demonstrate that the negative online brand engagement dimensions attain good composite reliability (CR) exceeding the recommended level of 0.7 (Bacon *et al.*, 1995; Hair *et al.*, 2006). Convergent validity with the average variance extracted (AVE) ranges from 0.727–0.883 for the calibration sample and 0.618–0.858 for the validation sample, exceeding the minimum acceptable value of 0.5 (Fornell and Larcker, 1981). The square root of AVE for each scale dimension is higher than any of the associated correlations, evidencing discriminant validity (Voorhees *et al.*, 2016).

No multicollinearity issues are observed between the scale's dimensions with the variance inflation factors (VIF) (O'Brien, 2007) values below 2.0 (Table XI).

Measured items	Factor			
Affective (Cronbach's α = 0.966)				
DNF1: This brand arouses intense negative emotions	0.964	−0.074	−0.020	0.053
DNF4: I feel uncomfortable when I think about this brand	0.899	−0.019	−0.075	0.012
NED2: My negative feelings about this brand could show on my face	0.853	−0.071	−0.115	−0.022
DNF5: I can use many negative words to describe my feelings towards the brand	0.845	0.009	0.135	0.031
NED3: People can tell my negative feelings about the brand from my face, body or voice	0.842	−0.113	−0.059	−0.019
DNF2: I always feel critical about this brand	0.838	0.131	−0.006	−0.041
NED5: This brand can make me upset	0.817	−0.061	−0.056	0.053
NED1: I experience my negative emotions about this brand very strongly	0.804	0.075	0.003	0.074
DNF3: I cannot tolerate this brand	0.804	0.106	0.101	−0.058
NED4: I cannot hide my negative feelings about this brand	0.780	0.025	−0.087	−0.101
NED6: People can read my negative feelings about this brand	0.778	−0.070	0.080	0.065
DNF6: I detest this brand	0.763	0.103	0.129	−0.044
Cognitive (Cronbach's α = 0.925)				
A2: If there is anything damning about the brand, I tend to notice it	0.012	0.964	0.020	−0.006
A3: I become aware of anything negative about the brand	0.028	0.911	−0.012	0.007
A4: I tend to observe anything negative about the brand	0.101	0.910	−0.037	0.000
A1: My mind is attracted by anything critical about the brand	0.025	0.858	0.021	0.025
T5: I consider the negative issues related to the brand	0.287	0.565	0.022	0.030
Online destructive behaviour (Cronbach's α = 0.973)				
DB2: If I have the opportunity, I express online my negative thoughts to hurt or damage the brand	0.034	−0.039	0.971	−0.010
DB1: If I have the opportunity, I express online my negative feelings to hurt or damage the brand	−0.015	0.003	0.949	−0.030
DB4: If I have the opportunity, I post online negative views to hurt or damage the brand	0.049	−0.025	0.939	0.006
DB3: If I have the opportunity, I share online negative comments I noticed to hurt or damage the brand	−0.044	0.045	0.904	0.008
DB5: If I have the opportunity, I take part in online movements against the brand aiming to hurt or damage the brand	0.006	0.020	0.898	−0.029
Online constructive behaviour (Cronbach's α = 0.916)				
CB2: If I have the opportunity, I express online my negative thoughts to help or improve the brand	0.000	−0.023	−0.079	0.932
CB4: If I have the opportunity, I post online negative views to help or improve the brand	0.037	−0.008	−0.047	0.931
CB3: If I have the opportunity, I share online negative comments to help or improve the brand	0.047	−0.057	−0.006	0.916
CB1: If I have the opportunity, I express online my negative feelings to help or improve the brand	−0.055	0.074	−0.052	0.873
CB5: If I have the opportunity, I take part in online movements against the brand to help or improve the brand	−0.021	0.082	0.273	0.656

Table VIII.
EFA scale development-pattern matrix (second round)

Source: Authors' own work

3.4 Step 4: Nomological network and discriminant validity

Testing the scale's relationship with other constructs evidences nomological validity (Study 9). To this end, the study examined the relationship of negative online brand engagement with two concepts: brand disloyalty and happiness. Brand disloyalty (a brand-related construct) was chosen because negatively engaged consumers may reduce, or deliberately avoid, purchasing brand-related products or services (Naumann *et al.*, 2017b; Heinonen, 2018). Happiness (a consumer-related construct) was used because existing

Items	Calibration sample Estimate	*t*-value	Validation sample Estimate	*t*-value
Affective	Alpha = 0.93, AVE = 0.73 CR = 0.93		Alpha = 0.94, AVE = 0.73 CR = 0.93	
This brand can make me upset. (NED5)	0.756	12.51	0.877	15.64
I experience negative emotions about this brand very strongly. (NED1)	0.889	16.04	0.930	17.24
I detest this brand. (DNF6)	0.899	16.37	0.807	13.68
I can use many negative words to describe my feelings towards the brand. (DNF5)	0.889	16.05	0.872	15.50
This brand arouses intense negative emotions. (DNF1)	0.822	14.16	0.773	12.89
Cognitive	Alpha = 0.93, AVE = 0.73 CR = 0.93		Alpha = 0.89, AVE = 0.62 CR = 0.89	
My mind is attracted by anything critical about the brand. (A1)	0.832	14.51	0.671	10.39
If there is anything damning about the brand, I tend to notice it. (A2)	0.900	16.48	0.820	13.85
I become aware of anything negative about the brand. (A3)	0.922	17.18	0.870	15.16
I tend to observe anything negative about the brand. (A4)	0.934	17.57	0.887	15.62
I consider the negative issues related to the brand. (T5)	0.657	10.41	0.651	10.05
Online constructive behaviour	Alpha = 0.93, AVE = 0.82 CR = 0.93		Alpha = 0.95, AVE = 0.86 CR = 0.95	
If I have the opportunity, I post online negative views to help or improve the brand. (CB4)	0.918	16.80	0.883	15.97
If I have the opportunity, I share online negative comments to help or improve the brand. (CB3)	0.924	16.99	0.986	19.33
If I have the opportunity, I express online my negative thoughts to help or improve the brand. (CB2)	0.868	15.38	0.907	16.67
Online destructive behaviour	Alpha = 0.97, AVE = 0.88 CR = 0.97		Alpha = 0.95, AVE = 0.84 CR = 0.96	
If I have the opportunity, I take part in online movements against the brand aiming to hurt or damage the brand. (DB5)	0.930	17.55	0.905	16.67
If I have the opportunity, I post online negative views to hurt or damage the brand. (DB4)	0.970	18.96	0.946	18.03
If I have the opportunity, I share online negative comments I noticed hurt or damage the brand. (DB3)	0.907	16.79	0.935	17.63
If I have the opportunity, I express online my negative thoughts to hurt or damage the brand. (DB2)	0.951	18.27	0.879	15.86

Source: Authors' own work

Table IX. CFA: Negative online brand engagement – covariance-based SEM

literature suggests that consumers can gain emotional benefits through engaging in brand-related activities (van Doorn *et al.*, 2010; Marbach *et al.*, 2016).

To capture brand disloyalty, the three items brand loyalty scale developed by Lin *et al.* (2019) was adapted (reversed), with the term "never" added in each item to fit the research context and construct definition. To measure consumer happiness, three items from Li and Atkinson (2020) were adapted to fit the research context, with the term "book" replaced by "my negative engagement with this brand". All items were captured on a seven-point Likert scale. Both constructs demonstrated high reliability in previous studies. The SEM model included 23 items in the analysis, 17 items capturing online negative brand experience and 3 items for each outcome. Item to case ratio for a sample of 205 responses is acceptable at 8.9:1 (Gorsuch, 1983; Cottrell *et al.*, 2007).

Table X.
Negative online brand engagement CFA model – covariance-based SEM

		CR	AVE	Affective	Cognitive	OCB	ODB
Calibration sample	Affective	0.930	0.727	1			
	Cognitive	0.931	0.731	0.614***	1		
	Online constructive behaviour (OCB)	0.930	0.817	0.087	0.158*	1	
	Online destructive behaviour (ODB)	0.968	0.883	0.646***	0.589***	0.020	1
	The square root of the AVE	-	-	0.853	0.855	0.904	0.940
Validation sample	Affective	0.930	0.729	1			
	Cognitive	0.888	0.618	0.394***	1		
	Online constructive behaviour (OCB)	0.948	0.858	0.182*	0.354***	1	
	Online destructive behaviour (ODB)	0.955	0.840	0.215**	0.342***	0.237**	1
	The square root of the AVE	-	-	0.854	0.786	0.926	0.917

Notes: *$p < 0.050$; **$p < 0.010$; ***$p < 0.001$
Source: Authors' own work

Table XI.
Variance inflation factors – covariance-based SEM

	VIF	
	Calibration sample	Validation sample
DV: Affective		
Cognitive	1.588	1.237
Online constructive behaviour	1.033	1.165
Online destructive behaviour	1.553	1.159
DV: Cognitive		
Affective	1.567	1.059
Online constructive behaviour	1.008	1.087
Online destructive behaviour	1.558	1.095
DV: Online constructive behaviour		
Affective	1.802	1.160
Cognitive	1.783	1.265
Online destructive behaviour	1.797	1.141
DV: Online destructive behaviour		
Affective	1.543	1.156
Cognitive	1.568	1.275
Online constructive behaviour	1.023	1.143

Source: Authors' own work

Three statistical tests for common method variance assure the lack of bias (Tehseen *et al.*, 2017). First Harman's single-factor test produced a factor explaining 42 per cent and 34 per cent of the total variance for the calibration and validation samples respectively, amounting to less than the 50 per cent threshold (Chang *et al.*, 2010). A marker variable on healthy and balanced diet scale (Żakowska-Biemans *et al.*, 2019) did produce significant change in the model fit indices for both calibration and validation samples (ΔRMSEA = 0.010/0.002, ΔCFI = 0.031/0.030, ΔTLI = 0.036/0.035). Finally, SmartPLS produced an insignificant p-value in the path coefficients for the marker variable in both calibration and validation samples. Contrasting models versus model without the marker showed insignificant change (<0.05). Therefore, common method bias does not seem to be an issue in this study (Chang *et al.*, 2010; Chin *et al.*, 2013).

To test the relationships, the validation sample was used. The SEM model provides support for both hypothesisd negative online brand engagement outcomes, with brand disloyalty ($\beta = 0.201$; $p < 0.001$) and consumer happiness ($\beta = 0.256$; $p < 0.001$). The model

demonstrated good fit (with CMIN = 428.269, DF = 221, CMIN/DF = 1.938, CFI = 0.953, NFI = 0.909, TLI = 0.946 and RMSEA = 0.068). All factor-loading estimates were statistically significant and ranged from 0.651 to 0.986 ($p < 0.001$). The t-values ranged from 10.14 to 19.35. The Cronbach's α values for each scale varied from 0.859 to 0.961 and CRs ranged from 0.864 to 0.961, indicating the internal consistency of the scales. The AVE values ranged from 0.616 to 0.893 and the square root of the AVE is higher than any of the associated correlations demonstrating discriminate validity. The results support the nomological validity of the negative online brand engagement scale and indicate that the new scale is reliable and valid.

4. Discussion and theoretical contribution

This paper aimed to enhance the understanding of negative online brand engagement by addressing its conceptualisation and operationalisation. The study adopted a robust approach to measure development relying on theoretical insights from consumer engagement literature and empirical data from nine studies. The development process drew on experts in the micro-area (academic panel) and in marketing (pilot test) as well as consumers engaging negatively in many online contexts including online commerce (Amazon complainers), social media (anti-brand communities' moderators and members) and in a broader context (researchers' network and snowballing active on social media). Given consumers' extensive engagement in social media platforms (Schultz and Peltier, 2013; Barger *et al.*, 2016), also evidenced for negative engagement (Liao *et al.*, 2023; Lievonen *et al.*, 2022), the scale development secured high participation in the process from social media users.

The findings offer several contributions to the existing knowledge. The first contribution relates to the nature and conception of negative online brand engagement. This paper advances the understanding of negativity by offering a four-dimensional notion of the concept which embraces cognitions, affections, online constructive behaviours and online destructive behaviours. Contrasted with past studies that simply considered the behavioural dimension (Azer and Alexander, 2020a, 2020b; Obilo *et al.*, 2021), this paper enhances precision and integrates diverse approaches. The new conceptual definition focuses specifically on negative online brand engagement, paving pathways for comparative studies of customer/consumer engagement with various objects (Hollebeek *et al.*, 2022, 2023). The conception stresses that both objects and the context of engagement are relevant (Hollebeek *et al.*, 2023). The attention to online context as a moderator of behaviours advances past definitions (Hollebeek and Chen, 2014), providing more detailed explanations of negative online brand engagement.

The second contribution concerns the operationalisation of negative online brand engagement. Responding to calls for increased rigour in scale development for engagement constructs (Ferreira *et al.*, 2020; Hollebeek *et al.*, 2023), this paper makes important headway in building on qualitative insights to develop a valid and reliable scale for the construct. This endeavour offers a major contribution to the existing literature on negative engagement measurement (e.g. Naumann *et al.*, 2020) which, to date, remains limited, in spite of some progress (Obilo *et al.*, 2021). The empirical validation advances, thus far, partial and contested understanding of dimensionality, with some scholars focusing on the behavioural dimension (e.g. Dolan *et al.*, 2016; Obilo *et al.*, 2021) and others supporting three dimensions (e.g. Bowden *et al.*, 2017; Villamediana-Pedrosa *et al.*, 2020). This newly developed four-dimensional scale provides a potential explanation of the exact meaning and applications of negative online brand engagement and differentiates it from the positive side.

The new instrument captures the varying nature of negativity in cognitive and affective engagement, thereby advancing Obilo *et al.*'s (2021) focus on behaviour. The developed measures of the cognitive dimension show consumers' negatively valenced attention and thinking about certain brands, reflecting a dynamic process. The affective dimension captures a range of brand-related negative feelings which have not been identified in previous consumer engagement literature.

Important theoretical advancement concerns the behavioural dimension. Whereas past scholarship tended to view consumers' destructive behaviours as an aspect of negative consumer engagement (Bowden *et al.*, 2017; Nangpiire *et al.*, 2022; Naumann *et al.*, 2020; Zhang *et al.*, 2018), the treatment of constructive behaviours was inconsistent. Some authors identified constructive behaviour as a sub-dimension of negative behavioural engagement (Naumann *et al.*, 2017a, 2017b), while others assigned them to positive engagement behaviours (Azer and Alexander, 2018). Negative engagement behaviour on social media takes various forms and might even aim to brand experience enhancement (Lievonen *et al.*, 2022). The current research confirms that consumer sharing of negativity online has both destructive and constructive aims and both are related to their negative engagement. In providing a valid and reliable measurement, this paper highlights the unique traits of the behavioural dimension and enhances recent research findings by detailing different types of negative engagement behaviours (Obilo *et al.*, 2021). This observation reconciles previously conflicting findings (Hollebeek *et al.*, 2023).

An important contribution concerns the portability of the scale. Although the new measure reflects both the idiosyncrasies of the brand as an engagement object and the online environment as an engagement context, the scale seems to be adaptable to different contexts and objects, enhancing existing operationalisations (see Obilo *et al.*, 2021). Specifically, all four dimensions can incorporate negative feelings, thinking and behaviours for other engagement objects, akin to some positive engagement scales (Dessart *et al.*, 2016). The validated items seem to be adaptable to other contexts, aligning with calls to treat the online environment as a distinct context of consumer brand interaction (Dwivedi *et al.*, 2023) and paying attention to engagement as context specific. Therefore, the specific uniqueness of the developed measure lies in the negative valence of the engagement spectrum, which remains a strong contribution of this work.

The nomological validity tests reveal a novel relationship between negativity and brand disloyalty. Past studies focusing on brand disloyalty tended to be qualitative (Naumann *et al.*, 2017b). To the researcher's best knowledge, this paper is the first to offer empirical support for the link between these two constructs. The findings have important implications because the inclusion of loyalty moves engagement closer to purchasing behaviour (Bowden *et al.*, 2015; Hollebeek *et al.*, 2023). Suprisingly, this study also uncovers the positive effect of negative online brand engagement on happiness. The findings suggest that consumers feel pleased after engaging negatively with the brand online. The relationship offers an additional explanation of how consumers' negative brand-related cognitions, feelings and behaviours positively affect consumers' average level of satisfaction but have significant negative effects on the brand value and firm performance.

5. Managerial contribution

This research offers several implications for marketing practice. Given that consumers engage with brands negatively online, this work offers a valid and reliable measure of the phenomenon that practising managers can use to estimate the intensity of this primarily unwanted engagement for companies. The longitudinal measure of negative online brand engagement can provide managers with temporal trends of how the sentiments towards their brand change over time. For example, managers could use the 17-item scale combined

with sentiment analysis tools as a useful applicable tool to automatically track negative comments online across a wide range of sites and platforms.

The scale can assist managers in examining the marketing tactics' effects on consumer behaviour, and help them grasp consumers' negative brand engagement in social media in particular, but also widely online. Understanding the nature of negative online brand engagement and its components, affective, cognitive and constructive and distractive behaviour, can be advantageous for brand managers who need to appreciate that unpleasant thoughts and feelings can be associated with behaviours of different character, all seen on the surface as similar. Not all consumers intent to harm brands when engaging negatively online, and this scale enables managers to evaluate the nature of the negative behaviours and act appropriately. Examining what could drive negative online constructive behavioural engagement can be highly beneficial, since it could help the brands improve even when the sentiment seems overall negative. The clear identification of the profile of customers and the reasons for developing constructive or distractive brand online negative brand behaviour is needed. Appreciating the triggers leading to negative online brand engagement can help brands to develop appropriate response tactics and a possible reduction of the intended negative online destructive behaviours.

6. Limitations and directions for future research

Despite its contributions, the paper has several limitations concerning sampling and the generalisability of results. Several suggestions are made to advance research in this emerging domain. The first limitation concerns sampling in the quantitative surveys. To gain rich insights into negative online brand engagement, the selection of participants followed non-random principles (i.e. online anti-brand groups and the authors' contacts). Future studies may consider using larger samples or the application of random sampling.

Considering negative engagement in other contexts and with other objects would extend the findings and enhance their generalisability. Future studies may examine offline negative brand engagement and investigate the differences between online and offline engagement. Given the emergence of new online environments, such as the metaverse, examining negative brand engagement in different online contexts will also be of interest. Other engagement objects should be considered and possible candidates include, for example, brand communities and brand community members. Given that qualitative findings highlight the interplay of negative brand engagement and brand community engagement (Bowden *et al.*, 2017), researchers should seek to further investigate negative relationships between different engagement objects.

Given that the scale introduces two different behavioural dimensions, constructive and distractive behaviour, researchers should also further examine the nature of these behaviours and possible antecedents and mediators that can lead to these. For example, it will be interesting to see if the relational history of consumers with the brand may be influencing their intention to engage with these two, different in nature, behaviours.

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