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Bridging the gap between brand gender and brand loyalty on social media: exploring the mediating effects

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ABSTRACT

Brand gender has been suggested to influence consumer's responses to the brand. The aim of this research was to deepen the understanding of the relationship between brand gender and brand loyalty by developing a research model to test the relationships among brand gender, active consumer engagement with the brand on social media, perceived quality, brand love and brand loyalty. The hypotheses were tested using structural equation modelling. The results support the importance of active consumer brand-engagement, perceived quality and brand love in underpinning the underlying process between brand gender and brand loyalty. Hence, this research complements prior work on brand gender and confirms the important benefits of a clear brand gender positioning by showing that a strong gender identity will enhance loyalty towards the brand.

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Brand gender; SNSs; brand loyalty; brand love; Facebook brand page

Introduction

Previous research has suggested that brand gender, a fundamental dimension of brand personality, can lead to relevant consumer–brand-related responses (Azar et al., 2018; Grohmann, 2009; Lieven et al., 2014), specifically influencing consumer–brand responses on Facebook (Machado et al., 2019). Brand gender refers to the personality traits associated with masculinity and femininity, which are both applicable and relevant to brands and comprise two independent and universal dimensions: masculine brand personality traits and feminine brand personality traits (Azar, 2015; Grohmann, 2009).

Although past studies have shown that consumer–brand gender congruence tends to influence brand loyalty (Grohmann, 2009), evidence on the underlying sources of this relationship is still scarce. Furthermore, the link between brand gender personality traits and brand loyalty on social media has not yet been empirically tested. Hence, the main aim of this study is to deepen the understanding on the underlying process of the relationship between brand gender (i.e. masculine brand personality traits and feminine brand personality traits) and brand loyalty, using the specific context of Facebook.

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Customer loyalty is a strategic objective for companies and the heart of marketing efforts, due to its positive impact on profitability and sustainability over time (Evanschitzky et al., 2011; Flavián et al., 2006; Nisar & Whitehead, 2016; Su & Tong, 2016). Previous studies have shown that the relative costs of customer retention are substantially less than those of acquisition (Flint et al., 2011; Fornell & Wernerfelt, 1987; Oliver, 1999), and firms spend dramatically to build and manage customer loyalty (Watson et al., 2015). For example, annual customer loyalty programme outlays have grown 27% since 2010 to exceed 48 USD billion across 2.7 billion programme enrollees in the United States alone (Berry, 2013). Building brand loyalty remains an ongoing challenge, namely because of the development of Social Networking Services (SNSs) (Watson et al., 2015). Brand-hosted social media, such as brand pages on Facebook, offer brands new ways to connect with customers (Helme-Guizon & Magnoni, 2019) but also new challenges (Claffey & Brady, 2019). Previous research has pointed out the power of social communities in building and enhancing loyalty towards brands (Laroche et al., 2012). Furthermore, emergent perspectives in marketing highlight new opportunities for leveraging social media as a means to build customer–firm relationships through consumer engagement (Claffey & Brady, 2019). However, there is a need for more empirical research about the effect of engagement through brand-hosted social media on customers’ brand loyalty (Helme-Guizon & Magnoni, 2019; Hudson et al., 2016).

In recent years, companies have invested an increasing amount of time and money into social media, particularly Facebook, in order to create stronger relationships with consumers and influence relevant behavioural outcomes (Statista, 2018; Yoshida et al., 2018). However, the question still remains on how social media brand strategies can help to build and strengthen consumer’s critical responses, particularly loyalty towards the brand.

Previous studies have suggested that consumer–brand engagement on social media can increase the likelihood of future brand purchases and lead to the building of significant relationships (Brodie et al., 2011; Schau et al., 2009; Van Doorn et al., 2010). Consuming and contributing are generally regarded as two essential types of consumer–brand engagement (Heinonen, 2011; Muntinga et al., 2011). Consuming is a passive form of engagement, while contributing represents active user-to-content and user-to-user interactions with brands (Muntinga et al., 2011). Hence, in this research, we decided to focus on contributing and analyse how the two dimensions of brand gender, namely masculine and feminine brand personality traits, explain consumer contributions to brand-related content on Facebook, thereby complementing the findings of prior research (Machado et al., 2019). Additionally, we aim to understand how consumers’ contributing to brand-related content on Facebook could enhance brand loyalty.

Moreover, there is limited research on what factors mediate the impact of brand gender on brand loyalty. Prior research has recognised that perceived quality is an important antecedent of brand loyalty (Erdoğan & Budeyri-Turan, 2012; H. J. Lee et al., 2010; Subrahmanyam, 2017) and that brand personality is positively related to perceived quality (Clemenz et al., 2012; Ha & Janda, 2014; Ramaseshan & Tsao, 2007). There is also evidence that clear brand gender positioning has a relevant impact on brand love (Machado et al., 2019) and explains brand affect, brand preference and brand loyalty (Grohmann, 2009). Thus, we aim to study the roles of perceived quality and brand love,

relevant antecedents of loyalty towards the brand, as mediating factors in the relationship between brand gender and brand loyalty on Facebook.

Hence, this research addresses the following questions:

- Q1. Do brand gender perceptions (i.e. masculine and feminine brand personality traits) influence consumer loyalty towards the brand?
- Q2. Is the relationship between the two dimensions of brand gender and brand loyalty mediated by active consumer engagement with the brand on Facebook?
- Q3. Do consumer perceptions about brand quality mediate the relationship between brand gender and brand loyalty?
- Q4. Does love towards the brand have a relevant mediating effect on the relationship between brand gender and brand loyalty?

The remainder of the paper is structured as follows: we next review the relevant literature and propose hypotheses; subsequently, the research methodology is presented. Finally, the findings are discussed and future research directions are outlined.

Theoretical background and hypotheses

Several authors have suggested that consumers may think of brands as living, humanlike entities (Azar, 2015; Guthrie, 1993; Hanby, 1999; Puzakova et al., 2009), attributing to brands demographic traits, such as age (Darpy & Levesque, 2001) and origin (Thakor & Kohli, 1996); personality traits, such as competence (J. Aaker, 1997) and charisma (Smothers, 1993); and behavioural traits, such as consumer–brand relationships (Fournier, 1998) and two-way communication between brands and consumers (Veloutsou, 2007). Azar (2015) distinguishes three types of sexual attributions to brands within the brand-as-a-person metaphor: (1) brand sex as a demographic characteristic, (2) brand gender as a personality characteristic and (3) brand sexual orientation as a behavioural characteristic.

Most authors in gender studies have noted the confusion between sex and gender (e.g. Borna & White, 2003; Carr, 2005; Deaux, 1985). Indeed, while sex is a dichotomous distinction based on biological differences (i.e. classifying human beings as males or females), gender is defined by social, psychological and cultural factors reflecting the degree of masculinity or femininity of an individual (Bem, 1985; Moi, 2005; Oakley, 1972; Pryzgoda & Chrisler, 2000; Spence & Helmreich, 1978). Therefore, brand gender should be clearly distinguished from brand sex. While brand sex is a demographic trait referring to ‘the human sex associated with a brand’, viewing a brand as a man or a woman (Azar, 2015, p. 49), brand gender is a set of personality traits (Azar, 2015), which can be defined as ‘the set of human personality traits associated with masculinity and femininity applicable and relevant to brands’ (Grohmann, 2009, p. 106). In this research, we are particularly interested in consumers’ brand gender perceptions.

Studies conducted on brand gender prior to 2009 considered brand gender as a unidimensional construct: some researchers measured either the masculine dimension or the feminine dimension and concluded that the brand was either masculine or feminine (e.g. Fry, 1971; Vitz & Johnston, 1965); others opposed these two constructs by using semantic scales (e.g. Alreck et al., 1982; Jung & Lee, 2006; Worth et al., 1992). This is the only scale explicitly developed in marketing to capture brand gender with two

separate dimensions (i.e. brand masculinity and brand femininity), showing that masculinity and femininity are two independent dimensions (Azar, 2013). Since the seminal work of Grohmann in 2009, brand gender has been conceptualised as a bi-dimensional construct with two distinct and independent dimensions (i.e. brand masculinity and brand femininity), in line with the new vision of gender as advanced by Sandra Bem in 1974. This approach allowed the emergence of four brand genders: masculine (i.e. high in masculinity and low in femininity), feminine (i.e. high in femininity and low in masculinity), undifferentiated (i.e. low in masculinity and femininity) and androgynous (i.e. high in masculinity and femininity) (Azar, 2015; Grohmann, 2009; Lieven et al., 2014).

Research has shown that consumers often create, enhance or accomplish their gender identities through the brands they choose and use (Avery, 2012; Lorber, 1994) and that brand gender positively influences consumers' affective, attitudinal and behavioural responses to brands (Lieven et al., 2014; Lieven & Hildebrand, 2016; Machado et al., 2019), including brand loyalty (Grohmann, 2009; Lieven et al., 2015).

Although brand loyalty is a key outcome variable in the marketing literature, its definition and conceptualisation vary significantly (Eelen et al., 2017; Leckie et al., 2016; Nisar & Whitehead, 2016; Watson et al., 2015). Despite there being no consensus on the definition of loyalty, researchers generally agree that loyalty is the highest level of commitment and has two dimensions: attitudinal loyalty and behavioural loyalty (Chaudhuri & Holbrook, 2001; Dick & Basu, 1994; C. K. M. Lee et al., 2018; Nisar & Whitehead, 2016; Oliver, 1999; Watson et al., 2015). Thus, loyalty can be defined as both a more favourable attitude towards a brand and repeat patronage (Nisar & Whitehead, 2016). Attitudinal loyalty refers to the feelings, preference and commitment that consumers have towards the brand, while behavioural loyalty includes repurchasing activities, repatronage intentions and word-of-mouth communication (Chaudhuri & Holbrook, 2001; C. K. M. Lee et al., 2018; Nisar & Whitehead, 2016). However, repeat purchasing behaviour does not always equal loyalty. Therefore, true loyalty implies commitment towards the brand and not just repurchasing due to inertia (Bloemer & Kasper, 1995; Dick & Basu, 1994; Pitta et al., 2006).

Some studies have focused on attitudinal loyalty (e.g. Hennig-Thurau et al., 2001; Kressmann et al., 2006), while others have focused on behavioural loyalty by measuring the intent to rebuy or re-patronise consistently the brand's offerings over time (e.g. Leckie et al., 2016; Oliver, 1999; Romaniuk & Nenycz-Thiel, 2013; Yoshida et al., 2018). In this study, we adopt the approach proposed by Yoo and Donthu (2001), which measures the overall attitudinal loyalty that consumers have towards the brand, instead of measuring actual purchase behaviour. Hence, we conceptualise brand loyalty as attitudinal loyalty.

According to previous research, brand personality favourably influences fundamental brand responses, leading to the formation of strong brand associations (Freling & Forbes, 2005) and perceived brand quality (Clemenz et al., 2012), as well as brand attitude (Chaudhuri & Holbrook, 2001) and brand loyalty (Brakus et al., 2009; Ramaseshan & Stein, 2014; P. Roy et al., 2016). Furthermore, research on the gendered dimensions of brand personality has suggested that brands with high levels of masculinity or femininity tend to be associated with brand preference and with higher attitudinal and behavioural brand loyalty (Grohmann, 2009; Lieven et al., 2015), regardless of the gender perceptions associated with the product category. Moreover, brand gender contributes to these

favourable responses towards the brand above and beyond other personality dimensions (Lieven et al., 2014).

More recently, Machado et al. (2019) tested brand gender effects in the specific context of Facebook and showed that the two dimensions of brand gender exert a significant influence on consumer responses. The authors showed that brand gender has a relevant impact on consumer-based brand equity on Facebook. Furthermore, Yoo and Donthu (2001) have shown that brand loyalty is a critical dimension of consumer-based brand equity. Thus, considering the results of prior research, we assume that the greater the extent to which consumers perceive the brand as feminine or masculine, the higher the brand loyalty, specifically on Facebook. Therefore, we postulate the following hypotheses:

H1a: Masculine brand personality traits (MBP) have a positive influence on brand loyalty (BLOY).

H1b: Feminine brand personality traits (FBP) have a positive influence on brand loyalty (BLOY).

Previous research has suggested that strongly gendered brands positively influence the likelihood of consumers recommending the brand to friends and of talking to others about their experience with the brand (Grohmann, 2009). Therefore, clear brand gender positioning (i.e. high levels of brand masculinity or brand femininity) should also positively influence consumer–brand interactions on Facebook, usually referred to as consumer–brand engagement (Gummerus et al., 2012; Schamari & Schaeffers, 2015; Van Doorn et al., 2010).

Consuming and contributing are generally regarded as two essential types of consumer engagement with brand pages (Heinonen, 2011; Muntinga et al., 2011; Shao, 2009). Previous studies have shown that the most active consumer–brand engagement, contributing, leads to critical outcomes, including consumer-based brand equity (Machado et al., 2019). Hence, in this research we focus on active consumer–brand engagement to understand how much the positioning of the brand as highly masculine or feminine explains consumers' contributions to brand-related content.

According to previous research, consumer engagement with a brand on social media can increase the likelihood of future brand purchases, leading to the building of significant relationships, and can contribute to the creation of higher commitment towards the brand (Algesheimer et al., 2005; Bagozzi & Dholakia, 2006; Brodie et al., 2011; Hollebeek, 2011; Schau et al., 2009; Tsai & Men, 2013; Van Doorn et al., 2010). McAlexander et al. (2002) and Brodie et al. (2013) also found that consumers who are engaged with the online brand community show higher brand loyalty. More recently, research on the impact of consumer engagement on SNSs on behavioural brand loyalty has shown that engagement is an important antecedent of aggregated purchase behaviour (Yoshida et al., 2018). Helme-Guizon and Magnoni (2019) also conclude that consumer–brand engagement has a positive impact on brand loyalty intentions. Considering the findings of prior research, we assume that contributing to brand-related content on Facebook mediates the relationship between brand gender and loyalty. Hence, we postulate:

H2a: Consumers' contributions to brand-related content on Facebook (CONT) mediate the influence of masculine brand personality traits (MBP) on brand loyalty (BLOY).

H2b: Consumers' contributions to brand-related content on Facebook (CONT) mediate the influence of feminine brand personality traits (FBP) on brand loyalty (BLOY).

Previous research has also shown that social media brand communication has become an important source for consumers to obtain information about product or service quality (Chevalier & Mayzlin, 2006; Riegner, 2007) and that it influences individual perceptions of brand quality (Bruhn et al., 2012; Schivinski & Dabrowski, 2015). Hollebeek et al. (2014) and Leckie et al. (2016) also found that active consumer involvement with the brand on social media positively influences active cognitive processing about the brand and that more-engaged consumers are more likely to develop strong positive beliefs about the brand. Therefore, we assume that active consumer engagement with the brand on social media will positively influence their overall subjective judgement about the superiority of the brand's products or perceived quality (D. A. Aaker & Jacobson, 1994; Zeithaml, 1988). Hence, we formulate the following hypothesis:

H3: Consumers' contributions to brand-related content on Facebook (CONT) have a positive influence on perceived brand quality (PQ).

Prior studies have suggested that brand love leads to positive word-of-mouth communication (Bairrada et al., 2018; Batra et al., 2012; Carroll & Ahuvia, 2006) and predicts active brand engagement (Bergkvist & Bech-Larsen, 2010). Yet other authors, such as Hudson et al. (2016), state that consumers who engage with their favourite brands using social media form deeper relationships with those brands. Moreover, previous research has shown that engagement with the brand on SNSs contributes to the development of stronger emotional bonds with the brand (Brodie et al., 2011, 2013), and should enhance consumer affective responses (Dholakia et al., 2004). Likewise, Langner et al. (2016) argue that the feelings evoked by favourable interactions with the brand over time lead to the development and maintenance of brand love, and S. K. Roy et al. (2013) suggest that non-controlled brand communications (or word-of-mouth communications) influence brand love. Vernuccio et al. (2015) and Machado et al. (2019) also show that consumer-brand engagement favourably influences brand love, highlighting that consumers will tend to develop more-intense emotional bonds with brands that are able to foster consumer interaction and participation on brand fan pages. Hence, we assume that consumers' contributions to brand-related content on Facebook will also favourably influence brand love. Thus, we hypothesise that:

H4: Consumers' contributions to brand-related content on Facebook (CONT) have a positive influence on brand love (BL).

Perceived quality is defined as a consumer's judgement about the superiority or excellence of a product (D. A. Aaker & Jacobson, 1994; Zeithaml, 1988), which is based on subjective perceptions. Perceived quality is an attitude that results from the comparison of consumer expectations with the actual performance (Parasuraman

et al., 1985). Many studies have pointed out the importance of creating good-quality perceptions and experiences among consumers, as the cost of retaining existing customers can be lower than the cost of acquiring new customers (Kemp, 2005; Kyoonyoo & Ah Park, 2007; Raj & Roy, 2015). Zeithaml (1988) states that perceived quality is considered a prerequisite to consumer behavioural intentions. Past research has indicated a positive relationship between perceived quality and brand loyalty or brand preference (Erdoğmuş & Büdeyri-Turan, 2012; H. J. Lee et al., 2010; Subrahmanyam, 2017), suggesting that perceived quality is an important antecedent of brand loyalty.

Previous studies have shown that brand personality is positively related to perceived quality and that a strong brand personality can be considered a good predictor of perceived product quality (Clemenz et al., 2012; Ha & Janda, 2014; Nikhashemi et al., 2017; Ramaseshan & Tsao, 2007). Moreover, research on brand gender has suggested that brands with high levels of masculinity or femininity tend to be associated with higher consumer-based brand equity (Grohmann, 2009; Lieven et al., 2014, 2015; Machado et al., 2019). Consumer-based brand equity can be treated as a hierarchical structure, assuming associative and directional relationships across the four dimensions of the construct: brand awareness, brand associations, perceived quality and brand loyalty (Buil et al., 2013; Pappu et al., 2005). Furthermore, research has shown that consumer-based brand equity dimensions follow a cognitive–affective–conative sequence and has suggested that perceived quality positively influences brand loyalty (Schivinski et al., 2019). In this sense, we expect perceived quality to mediate the relationship between brand gender perceptions and consumer loyalty towards the brand. Hence, we assume that:

H5a: Perceived brand quality (PQ) mediates the influence of masculine brand personality traits (MBP) on brand loyalty (BLOY).

H5b: Perceived brand quality (PQ) mediates the influence of feminine brand personality traits (FBP) on brand loyalty (BLOY).

Carroll and Ahuvia (2006, p. 81) define brand love as ‘the degree of passionate emotional attachment a satisfied consumer has for a particular trade name’. Previous research on the antecedents of brand love has shown that love towards the brand is based not only on its emotional characteristics but also on the cognitive attributes of the brand (Langner et al., 2009), as evaluative judgements of the brand’s performance can lead to the development of strong emotional attachments to the brand (Thomson et al., 2005). Huber et al. (2015) also found that perceptions of the brand’s utilitarian benefits and beliefs about the brand’s ability to perform its desired function are central drivers of brand love. Thus, we assume that consumers’ overall judgement about the quality of the brand’s products will positively influence their love for the brand. Therefore, we postulate the following hypothesis:

H6: Perceived brand quality (PQ) has a positive influence on brand love (BL).

Brand love is regarded as a critical intermediate outcome of brand strategies on social media (Machado et al., 2019; Vernuccio et al., 2015). Brand love has been associated with

a number of organisational benefits (Rossiter, 2012). Among the advantageous brand love outcomes, brand loyalty and positive word of mouth are the two most frequently cited (Bıçakcıoğlu et al., 2018; Palusuk et al., 2019). Prior research has suggested that brand love is able to fortify the existing bonds between consumers and brands, to nurture the relationship and to strengthen the beliefs in the brand; it might also enhance desirable post-consumption behaviours, specifically brand loyalty and purchase intention (Bairrada et al., 2018; Bergkvist & Bech-Larsen, 2010; Bıçakcıoğlu et al., 2018; Carroll & Ahuvia, 2006; Loureiro et al., 2012; P. Roy et al., 2016).

Moreover, in an online context, as in our study, Machado et al. (2019) found that love towards a favourite brand on Facebook has a positive and strong influence on consumer-based brand equity on Facebook. As brand loyalty is one of the dimensions of consumer-based brand equity, we expect that brand love will also favourably affect brand loyalty.

Previous research has suggested that brand personality significantly influences affective responses to brands (Sung & Kim, 2010) and stimulates emotional attachment to brands (Fournier, 1998; Orth et al., 2010). Recent research has also shown that perceptions of brand personality significantly influence brand love (P. Roy et al., 2016). Furthermore, research on the gendered dimensions of brand personality has shown that clear brand gender positioning has a relevant impact on brand love (Machado et al., 2019) and explains brand affect, brand preference and brand loyalty (Grohmann, 2009). Thus, it is a relevant endeavour to explore the role of brand love in the relationship between brand gender and brand loyalty. Considering the findings of previous studies, we propose the following hypotheses:

H7a: Brand love (BL) mediates the influence of masculine brand personality traits (MBP) on brand loyalty (BLOY).

H7b: Brand love (BL) mediates the influence of feminine brand personality traits (FBP) on brand loyalty (BLOY).

Methodology

Sample and procedure

Prior to data collection, we pre-tested the questionnaire with 15 Facebook users and refined it based on their comments. Data was collected in Portugal through the administration of an online questionnaire to Facebook users. We used a non-random convenience sampling technique (McDaniel & Gates, 2006). The data analysis relies on 677 completed questionnaires. Sample demographics and characteristics are presented in Tables 1 and 2.

Our sample was heterogeneous in terms of the time the respondents spent on Facebook each day. However, most of our respondents were connected consumers, as they spent more than an hour per day online (83.9%). The majority of our respondents were female consumers (59.52%), and most of our sample (almost 56%) was composed of young consumers. The profile of our respondents was suitable for this study, as it was in line with Facebook users' demographics (Statista, 2018) and recent research findings showing that consumers who like brand pages on Facebook are significantly younger than regular

Table 1. Sample demographics.

Variable name	Value	Frequency	%	Variable name	Value	Frequency	%
Age	16–22	227	33.53	Level of education	High school	115	16.98
	23–28	152	22.45		Bachelor's degree	282	41.65
	29–35	128	18.90		Master's degree	264	38.99
	36–45	110	16.24		Other	16	2.36
	46–71	60	8.86				
Sex	Male	274	40.47	Job status	Full-time	346	51.11
	Female	403	59.52		Student	294	43.43
					Not working	37	5.46

Table 2. Sample characteristics.

Variable name	Value	Frequency	Percentage
Time spent on the Internet each day	Less than 30 minutes	15	2.22
	Between 30 minutes and 1 hour	94	13.88
	Between 1 and 2 hours	168	24.82
	More than 2 hours	400	59.08
Time spent on Facebook each day	Less than 30 minutes	154	22.75
	Between 30 minutes and 1 hour	225	33.23
	Between 1 and 2 hours	162	23.93
	More than 2 hours	136	20.09
Number of online brand pages liked	Fewer than 10 brand pages	258	38.11
	Between 11 and 20 brand pages	151	22.30
	Between 21 and 30 brand pages	81	11.96
	More than 30 brand pages	187	27.62

consumers of the brand (Lipsman et al., 2012). Moreover, our sample reflects the millennial generation or 'digital natives', who are, together with Generation Z, the major active users of social media (Pew Research Center, 2017; Statista, 2019). Our respondents were divided into two main groups: full-time workers (51.1%) and students (43.3%). Students' representation is important in this kind of research, as highlighted in previous research conducted on Facebook (e.g. Azar et al., 2016; De Bruyn & Lilien, 2008; Hunt et al., 2012; Machado et al., 2019; Patterson, 2011; Wallace et al., 2012, to name just a few examples).

In the first stage, the participants indicated their general use of the Internet and Facebook. In the second stage, the participants were given a short message, asking them to connect to their personal Facebook page in order to report the number of Facebook brand pages they liked and identify the product/service categories they belonged to (Table 3). As a consequence, all our participants were screened for (i) having a Facebook account and (ii) having already liked at least one brand page on Facebook before pursuing with the questionnaire. It has been reported in the branding literature that the broad construct of consumer–brand relationships (Fetscherin et al., 2014; Veloutsou, 2015) and the specific construct of consumer–brand engagement on SNSs (Brodie et al., 2013; Hollebeek et al., 2014; Machado et al., 2019) exist in many product categories and are not product category specific; therefore, we did not consider a specific product category in this study. For the purpose of this study, it was important to ask the respondents to rate the brands that they seemed to have built relationships with or at least followed frequently on SNSs as individuals. Hence, we asked them to identify and report their favourite Facebook brand page. The last stage consisted of answering the remaining questions, keeping in mind that favourite brand, in line with previous studies conducted on online brand experiences (e.g. Azar et al., 2016; Machado et al., 2019; Morgan-Thomas & Veloutsou, 2013; Veloutsou, 2015).

Table 3. Product categories liked on Facebook in our sample.

Category of Facebook brand page	Number of respondents who like brand pages belonging to each category	Percentage of respondents who like brand pages belonging to each product category
Entertainment (e.g. radio stations, TV channels and cinemas)	386	57.10
Fashion	382	56.42
Restaurants and coffee shops	369	54.50
Artists and public figures	359	53.02
Communities or social causes	331	48.89
Newspapers and magazines	330	48.74
Places (e.g. cities and countries)	296	43.72
Sports clubs	259	38.25
Bars and clubs	252	37.22
Consumer goods (e.g. soft drinks, chocolate, cereal, biscuits and water)	232	34.26
Electronic goods (e.g. smartphones, computers and tablets)	208	30.72
Cosmetics and perfumes	196	28.95
Hotels	155	22.89
Luxury goods	147	21.71
Cars	139	20.53
Transport (e.g. airline and railway transport companies)	132	19.49
Telecommunications	128	18.90
Retailers	85	12.55
Alcoholic beverages	83	12.25
Banks and insurance companies	45	6.64
Other	40	5.9

Measures and measurement checks

All the constructs were measured using scales from prior studies. The scales were translated into Portuguese using a translation and back-translation procedure. Conceptual equivalence was assessed through back-translation to ensure that the items in Portuguese communicated similar information to those in English (Brislin, 1970; Sekaran, 1983).

All items were measured using a seven-point Likert-type response scale. We measured brand gender using a 12-item scale developed by Grohmann (2009): the subscales masculine brand personality traits (MBP, six items: adventurous, aggressive, brave, daring, dominant and sturdy) and feminine brand personality traits (FBP, six items: expresses tender feelings, fragile, graceful, sensitive, sweet and tender) were used to measure respectively the levels of masculinity and femininity of each brand. Brand love was measured using five of the ten items of Carroll and Ahuvia's (2006) scale, as adapted by Loureiro et al. (2012). As per Loureiro et al. (2012), we excluded the attachment component and the 'neutral items', as we wanted to capture the love feelings towards the brand. Consumers' contributions on Facebook were captured through three items developed by Tsai and Men (2013). We eliminated one item of this scale ('Liking/joining a company's Facebook page') because we targeted respondents who had already liked a Facebook brand page. Perceived quality was assessed through two items from Yoo and Donthu (2001). Finally, to measure brand loyalty, in line with previous studies (e.g. Leckie et al., 2016; Su & Tong, 2016), we used the three-item measure from Yoo and Donthu (2001).

Exploratory and confirmatory analyses were conducted to assess the reliability and validity of the variables. Our dataset was first screened for missing data. We also checked the multicollinearity, linearity and normality assumptions for each variable. We then performed exploratory factor analysis to evaluate all of the items and constructs used in

this study. To aid in our interpretation of these six components, we performed an oblique rotation on all of the measured items and checked the data for cross-loading items and those with communalities of less than .5. This resulted in removing two items from Grohmann's scale with weak factor loadings: the two items deleted were 'aggressive' from the MBP scale and 'fragile' from the FBP scale. These two items were also problematic in previous studies on brand gender where Grohmann's scale was applied (Azar et al., 2016, 2018; Lieven & Hildebrand, 2016; Machado et al., 2019). We then performed confirmatory factor analyses.

The model's psychometric values ensured the proper fit of the measurement model, as all the values were within the acceptable range (Hair et al., 2009): χ^2 was significant, and $\chi^2/df = 2.453$, TLI = .963, CFI = .970, GFI = .935, AGFI = .915, SRMR = .0456, RMSEA = .046 (.042–.051) and PCLOSE = .889.

The model explained 65.7% of the variance in brand loyalty, 40.6% of the variance in brand love and 37.1% of the variance in perceived quality. As for consumers' contributions to brand pages on Facebook, brand gender explained 11.7% of the variance in this construct. This low explanatory power of contributing to Facebook brand pages was somewhat expected, as the literature highlights five motivations to interact with brands on Facebook (i.e. social influence, search for information, entertainment, trust and reward; for a review, see Azar et al., 2016). The path diagram is illustrated in Figure 1.

We also tested the convergent and discriminant validity of the dimensions used in this study. Tables 4 and 5 illustrate the correlation matrices and the operationalisation of the constructs used. For all measurement models, Cronbach's alpha and CR values are at adequate level. All standardised regression weights are significant. In support of the discriminant validity, the square roots of the AVE are superior to any correlations between latent variables; these findings follow Fornell and Larcker (1981) guidelines.

Common method bias check

As all of our data was generated from the same respondents, common method bias could have been a threat to the validity of our findings (Podsakoff et al., 2003). Therefore, we assessed the strength of this threat using exploratory and confirmatory methods. The first approach was to use Harman's (1976) single-factor test. To do so, we forced all of the items used in this study to load on one single factor. This test resulted in

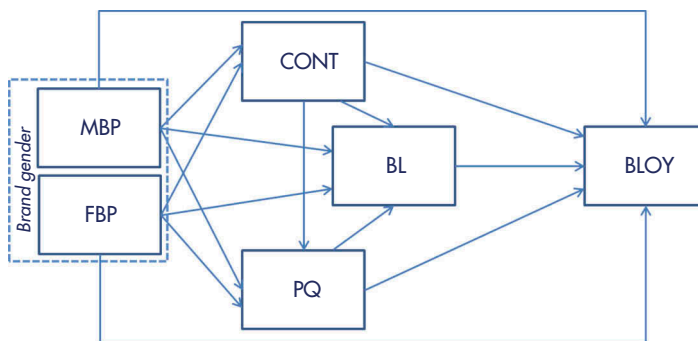


Figure 1. The tested model.

Table 4. Summary statistics.

Label	Construct	Mean	SD	Correlation Matrix						
				FBP	MBP	CONT	PQ	BL	BLOY	
FBP	Brand femininity	3.871	1.675	1						
MBP	Brand masculinity	4.855	1.362	.061 ^{ns}	1					
CONT	Contributing	3.110	1.704	.095 ^{ns}	.333**	1				
PQ	Perceived quality	5.305	1.480	.122**	.436**	.349**	1			
BL	Brand love	4.992	1.468	.278**	.558**	.380**	.582**	1		
BLOY	Brand loyalty	4.538	1.743	.120**	.477**	.477**	.756**	.621**	1	

Notes: ** correlation is significant at the .01 level (two-tailed). ns: correlation is not significant at the .05 level (two-tailed)

Table 5. Construct measurements.

Construct	Mean	SD	Estimate	Composite reliability	AVE
Brand femininity (FBP, adapted from Grohmann, 2009)	3.871	1.675		.918	.694
Sensitive	3.722	1.866	.783		
Graceful	4.187	1.879	.700		
Expresses tender feelings	4.045	1.853	.737		
Sweet	3.750	1.956	.952		
Tender	3.649	1.930	.959		
Brand masculinity (MBP, adapted from Grohmann, 2009)	4.855	1.362		.840	.516
Adventurous	4.920	1.737	.742		
Brave	4.847	1.702	.839		
Daring	5.075	1.611	.758		
Dominant	4.858	1.748	.601		
Sturdy	4.574	1.840	.623		
Contributing (CONT, adapted from Tsai & Men, 2013)	3.110	1.704		.866	.618
Engaging in conversations on companies' Facebook pages (e.g. commenting and asking or answering questions)	2.813	1.882	.772		
Sharing companies' Facebook posts on my own Facebook page (e.g. videos, audio, pictures and text)	3.391	2.035	.823		
Recommending the brand's Facebook page to my contacts	3.243	2.113	.759		
Uploading product-related videos, audio, pictures or text	2.994	2.006	.790		
Perceived quality (PQ, adapted from Yoo & Donthu, 2001)	5.305	1.480		.857	.750
The likely quality of X is extremely high	5.397	1.550	.891		
The likelihood that X would be functional is very high	5.212	1.616	.840		
Brand love (BL, adapted from Loureiro et al., 2012)	4.992	1.468		.912	.675
This is a wonderful brand	5.400	1.503	.827		
This brand makes me feel good	5.348	1.525	.851		
This brand makes me feel happy	4.698	1.847	.772		
This brand is a delight	5.066	1.690	.882		
I am passionate about this brand	4.447	1.995	.771		
Brand loyalty (BLOY, adapted from Yoo & Donthu, 2001)	4.538	1.743		.873	.698
I consider myself to be loyal to brand X	4.813	1.911	.869		
Brand X would be my first choice	4.929	1.877	.904		
I will not buy other brands if brand X is available at the store	3.871	2.151	.722		

33.66% of the variance explained. As this factor did not account for the majority of the covariance between the measures, we assumed that common method bias was not a pervasive issue in this study (Chang et al., 2010). To confirm this interpretation, we compared the chi-square difference between a single-factor model where all of the manifest variables were explained through one common method factor ($\chi^2 = 5183.79$, $df = 265$) with the multifactorial measurement model used in this study ($\chi^2 = 556.75$, $df = 227$). The single-factor model's fit was significantly worse; therefore, the correlations between all of the observed variables in this model could not be explained by one common method factor.

The second approach was to use the common latent factor (CLF) test as a confirmatory method to capture the common variance among all of the observed variables in the model. Therefore, we added a latent factor to our model and then connected this to all of the observed variables. The comparison between the standardised regression weights of the two models (with and without the CLF) showed small differences (less than .07 on average). Therefore, we concluded that there was no evidence of common method bias in this study (Conway & Lance, 2010; Podsakoff et al., 2003).

Methodological details and model building

We used AMOS to perform structural equation modelling (SEM), employing maximum likelihood estimation. In order to test our hypotheses, we implemented an incremental model-building approach (Hair et al., 2009). This approach allowed us to replicate and build on previous research findings (i.e. Grohmann, 2009; Lieven et al., 2014; Lieven & Hildebrand, 2016; Machado et al., 2019) before testing a more complex model with three mediators. The first model tested the impact of the two independent dimensions of brand gender, namely masculine brand personality traits (MBP) and feminine brand personality traits (FBP), on brand loyalty (Model 1). Then we added other latent and observed variables to the initial model. As we had multiple mediators, we simultaneously tested the impacts of the mediating effects of perceived brand quality, brand love and consumers' contributions on brand pages on Facebook on the relationship between brand gender and brand loyalty (Model 2). The advantage of testing them simultaneously was to learn if the effect of one mediator was independent of the effects of the other mediators (Kenny et al., 1998). We therefore tested whether the addition of mediating variables led to better fit indices, as well as an increase in the percentage of variance explained by our dependent variable, brand loyalty.

In order to decide if the model fit indices improved significantly between the two models, we analysed the chi-square value (χ^2) and the degree of freedom (df) of each model. Model 2 was considered better than Model 1 when the $\Delta\chi^2$ between the two models was significant at the .01% error level. As reported in Table 6, our second model improved the overall model fit compared to the first model: Model 2 ($\Delta\chi^2 = 366.824 > \chi^2_{.001}(170) = 232.719$). Moreover, Model 2 explained 65.7% of the total variance in brand loyalty, whereas Model 1 explained only 23.3% of the total variance in brand loyalty. Cohen's f^2 effect size is a good indicator in a hierarchical multiple regression study; it was equal to .669, showing that the effect size attributable to the addition of the three mediators to the original model was large.

Therefore, simultaneously adding the three mediators significantly improved the model fit and the total variance explained by brand loyalty (65.7%). In the findings section, we therefore analyse the outcomes of Model 2.

In order to test for mediating effects and assess the specific indirect effects, we used the bootstrapping method (5,000 iterations) with 95% bias-corrected confidence intervals

Table 6. Sequential model comparison.

Model	χ^2	Df	$\Delta\chi^2$	Δdf	$\chi^2_{.001}(\Delta df)$
Model 1	189.932	57	-	-	-
Model 2 vs. Model 1	556.753	227	366.824	170	232.719

(Preacher & Hayes, 2008). This approach is recommended by some researchers, as it is based on a non-parametric resampling approach (Hayes, 2009; MacKinnon et al., 2004; Preacher et al., 2007). An indirect effect was considered significant if its 95% bootstrap confidence intervals did not include zero. In order to have all indirect effects, we developed a user-generated estimand using Visual Basic programming in AMOS. In what follows, we report the non-standardised regression weights.

Results

A systematic test was conducted in order to test our first hypothesis. This approach allowed us to build on previous research findings, adding complexity with the three mediators studied in this research.

The direct impact of brand gender on brand loyalty

Model 1 built on previous research findings by testing the direct impact of brand gender on brand loyalty. At this level, both masculine brand personality traits (path coefficient = .616, $p < .001$) and feminine brand personality traits (path coefficient = .088, $p < .05$) had a significant direct impact on brand loyalty. After the addition of the three mediators, neither masculine brand personality traits (path coefficient = .082; $p > .05$) nor feminine brand personality traits (path coefficient = $-.023$; $p > .05$) reached a statistically significant level, leading us to reject H1a and H1b (see Table 7). However, the indirect impact of the two dimensions of brand gender on brand loyalty was supported through the mediators used in this study. All of our mediators indicated indirect-only mediation regarding the impact of brand gender on brand loyalty, as per Zhao et al. (2010).

Table 7. Incremental model building.

Parameters	Model 1		Model 2	
	Estimate	SE	Estimate	SE
CONT ← MBP			.371***	.052
CONT ← FBP			.059 ^{ns}	.032
PQ ← MBP			.376***	.049
PQ ← FBP			.058*	.028
PQ ← CONT			.208***	.043
BL ← MBP			.336***	.041
BL ← FBP			.135***	.022
BL ← CONT			.101**	.032
BL ← PQ			.334***	.039
BLOY ← BL			.612***	.066
BLOY ← CONT			.217***	.040
BLOY ← PQ			.670***	.053
BLOY ← MBP	.616***	.059	.082 ^{ns}	.050
BLOY ← FBP	.088*	.035	$-.023$ ^{ns}	.027
% of variance explained				
		23.3%	65.7%	
			11.7%	
			50.7%	
			24.3%	

ns: not significant; * $p < .05$; ** $p < .01$; *** $p < .001$

The impact of brand gender on contributing and brand loyalty

As illustrated in Table 7, feminine brand personality traits had no significant impact on contributing on Facebook (path coefficient = .059, $p > .05$). Only masculine brand personality traits had a significant positive impact on consumers' contributions to brand-related content on Facebook (path coefficient = .371, $p < .001$). Therefore, the impact of brand gender on consumers' contributions to brand-related content was partially supported, as only the impact of one dimension of brand gender, namely masculine brand personality traits, was supported. Moreover, the link between consumers' contributions to brand-related content and brand loyalty was supported (path coefficient = .217, $p < .005$). These findings are in line with previous research findings (Machado et al., 2019). Further analysis shows that the indirect path of effects of masculine brand personality traits on brand loyalty through consumers' contributions to brand-related content was significant with the 95% confidence interval excluding zero (see Table 8). Therefore, H2 was partially supported as the indirect impact of one dimension of brand gender, namely masculine brand personality traits on brand loyalty through consumers' contributions to brand-related content, was supported.

The impact of contributing on perceived quality and brand love

As highlighted in Table 7, consumers' contributions to brand-related content on Facebook had a significant and positive impact on perceived brand quality (path coefficient = .208 $p < .001$) and on brand love (path coefficient = .101 $p < .01$). Therefore, both H3 and H4 were supported.

The impact of brand gender on perceived quality and brand loyalty

Both feminine brand personality traits (path coefficient = .058, $p < .005$) and masculine brand personality traits (path coefficient = .376, $p < .001$) had a significant and positive impact on perceived brand quality. Masculine brand personality traits also had a significant and indirect impact on perceived brand quality through consumers' contributions to brand-related content (estimate = .077, $p = .011$). Moreover, perceived brand

Table 8. Bootstrap analysis and statistical significance of indirect effects.

Parameters	Estimate	Lower bounds (BC)	Upper bounds (BC)	P
PQ ← CONT ← MBP	.077	.047	.119	.011
BL ← CONT ← MBP	.037	.010	.067	.005
BL ← PQ ← FBP	.019	-.001	.048	.071
BL ← PQ ← MBP	.125	.082	.200	.007
BLOY ← CONT ← FBP	.013	-.001	.035	.062
BLOY ← CONT ← MBP	.081	.044	.132	.008
BLOY ← PQ ← FBP	.039	-.003	.085	.084
BLOY ← PQ ← MBP	.252	.172	.364	.006
BLOY ← BL ← FBP	.036	.013	.065	.009
BLOY ← BL ← MBP	.090	.037	.164	.014
BLOY ← BL ← CONT ← MBP	.010	.003	.030	.002
BLOY ← PQ ← CONT ← MBP	.052	.035	.079	.005
BLOY ← BL ← PQ ← FBP	.005	.000	.013	.084
BLOY ← BL ← PQ ← MBP	.034	.016	.062	.008

BC: bias corrected; bold represents significant indirect effects

quality had a significant and positive influence on brand loyalty (path coefficient = .670, $p < .001$). The mediating effect of perceived brand quality on brand loyalty was revealed to be significant for masculine brand personality traits only, as ($a \times b$) and ($a \times b \times c$) were significant with the 95% confidence interval excluding zero (Table 8). The indirect effect of masculine brand personality traits on brand loyalty went directly through perceived brand quality (estimate = .252, $p = .006$) and to a lesser extent indirectly through consumers' contributions to brand-related content on Facebook and perceived brand quality (estimate = .052, $p = .005$) (Table 8). Therefore, H5 was partially supported, as only H5a was supported.

The impact of perceived quality on brand love

Perceived brand quality had a significant and positive impact on brand love (path coefficient = .334 $p < .001$), leading us to accept H6.

The impact of brand gender on brand love and brand loyalty

Both female brand personality traits (path coefficient = .135, $p < .001$) and masculine brand personality traits (path coefficient = .336, $p < .001$) had a significant and positive impact on brand love. Masculine brand personality traits had a significant indirect impact on brand love through perceived brand quality (estimate = .125, $p = .007$) and consumers' contributions to brand-related content on Facebook (estimate = .037; $p = .005$). Brand love had a significant and positive impact on brand loyalty (path coefficient = .612, $p < .001$). The indirect effect of brand gender (MBP, $p = .009$ and FBP, $p = .014$) on brand loyalty through brand love was significant. Therefore, H4 was fully supported, as both H4a and H4b were supported.

Further analysis showed that the indirect paths of effects of masculine brand personality traits on brand loyalty through consumers' contributions to brand-related content on Facebook, perceived brand quality and brand love ($a \times b$ and $a \times b \times c$) were significant with the 95% confidence interval excluding zero, whereas for feminine brand personality traits, only the indirect path of effects through brand love ($a \times b$) was significant with the 95% confidence interval excluding zero. Therefore, the indirect impact of feminine brand personality traits on brand loyalty was fully mediated by brand love (Table 8). All these results indicate indirect-only mediation regarding the impact of brand gender on brand loyalty (Zhao et al., 2010).

Discussion

Since the seminal work of Grohmann (2009) on brand gender, a stream of research has emerged on how brand gender affects consumer responses to the brand, and a few systematic studies have been conducted on the impact of gender perceptions on brand loyalty (Grohmann, 2009; Lieven et al., 2015). However, evidence on the underlying sources of this critical relationship is still scarce. The first aim of this study was to fill this gap and to throw light on the essential mechanisms that account for the effects of masculine brand personality traits and feminine brand personality traits on loyalty towards the brand. Hence, drawing on the literature, we developed a unique model on the process by which brand

gender can affect brand loyalty. Then, we tested, supported and validated our model and hypotheses in the specific context of social media, specifically Facebook.

Theoretical implications

This research contributes to the brand gender literature in a variety of ways. Earlier studies (Grohmann, 2009; Lieven et al., 2015) have assumed that masculine brand personality traits and feminine brand personality traits have a direct effect on brand loyalty, such that more-masculine and more-feminine brands induce higher loyalty towards the brand. The present study advances the nascent knowledge on the outcomes of brand gender by providing deep insights into the underlying process regarding the development of brand loyalty on social media. Indeed, our findings show a full mediation impact of brand gender on brand loyalty through consumers' contributions to brand-related content on Facebook, perceived brand quality and brand love: our model explains 65.7% of the total variance in brand loyalty, while the model without the mediators explains only 23.3% of the total variance in brand loyalty. Hence, this study adds to the brand gender literature by contributing to a better theoretical understanding of the impact of brand gender on key consumer–brand-related outcomes.

In addition, our analysis and findings suggest that brand gender is an essential construct within the brand management literature and highlight the critical advantages of building strong brand gender positioning (Grohmann, 2009; Lieven et al., 2014, 2015; Machado et al., 2019). In this respect, the results show that part of the indirect impact of brand gender on brand loyalty is mediated by active consumer engagement with the brand on social media. Thus, this study complements the body of literature on brand gender by analysing the process through which the effects of brand gender influence loyalty towards the brand in the particular context of social media, specifically Facebook. This is particularly relevant because Facebook brand pages have become essential channels for brands' activities (Helme-Guizon & Magnoni, 2019; Machado et al., 2019; Simon & Tossan, 2018).

Furthermore, our research demonstrates that, even though both dimensions of brand gender are essential in explaining consumer responses to the brand, the most relevant dimension is masculinity, as it influences not only cognitive and affective responses to the brand but also active engagement with the brand on social media. In fact, the findings show that masculine brand personality traits influence overall quality perceptions, contributions to brand-related content on Facebook and love towards the brand, whereas feminine brand personality traits only have an impact on perceived quality and brand love. Thus, the findings highlight that only strong positioning in terms of masculinity ensures high active engagement with the brand on social media. Moreover, masculine brands impact loyalty through action (contributions to brand-related content), cognitive (perceived quality) and emotional (brand love) factors, while feminine brands affect loyalty only through the emotional bond with the brand (brand love). These results are consistent with prior studies showing the asymmetrical importance of the two dimensions of brand gender (Avery, 2012; Azar et al., 2018; Jung & Lee, 2006; Machado et al., 2019; Neale et al., 2016), suggesting that masculine brands are more effective than feminine-gendered profiles. Indeed, females are more likely to accept masculine brands, while males tend to resist and reject feminine brands, as they are affected by the cultural stigma that using (or actively engaging) with

a brand associated with femininity might threaten their gender identity (Azar et al., 2018; Martin & Gnoth, 2009).

In addition to the above contributions, this research advances the literature on brand gender perceptions and brand loyalty (Grohmann, 2009; Lieven et al., 2015) by providing the first empirical support on the roles of perceived brand quality and brand love as underlying sources in this relationship. In this regard, the findings show that brand gender has a major indirect impact on brand loyalty through brand love, as brand gender explains 50.7% of its overall variance. Furthermore, this research provides a deeper understanding of the effects of brand personality traits on consumers' affective responses (e.g. Machado et al., 2019; P. Roy et al., 2016) by showing that the two gendered dimensions of brand personality remain central in explaining the impact of brand personality on brand love. Ultimately, we extend prior studies by suggesting that when brands are able to develop strong identities in terms of gender and, in particular, to acquire unambiguous masculine personalities, this will enhance consumers' overall quality judgement, thereby strengthening their love and fostering their loyalty towards the brand. Thus, this study complements the findings of previous research on brand love (e.g. Carroll & Ahuvia, 2006; Langner et al., 2016; Loureiro et al., 2012; P. Roy et al., 2016) and on perceived quality (e.g. Clemenz et al., 2012; Erdoğan & Budeyri-Turan, 2012; Ha & Janda, 2014; Nikhashemi et al., 2017; Ramaseshan & Tsao, 2007; Subrahmanyam, 2017) and extends these findings to the context of social media.

Managerial implications

The findings of this study provide relevant implications for managers. First of all, they highlight that by developing strong gender-typed traits (masculine or feminine) for their brands, managers will enhance consumers' cognitive (i.e. perceived quality), affective (i.e. brand love) and behavioural responses (i.e. consumers' contributions to brand-related content on Facebook) to the brand and through these means increase loyalty. Thus, managers should clearly position their brands as masculine or feminine to increase loyalty.

To reinforce consumers' perceptions of masculine or feminine brand personality traits, brand managers can work on the brand associations previously reported in the literature (Azar, 2015; Grohmann, 2009). In this regard, authors like Lieven et al. (2015), Moss et al. (2007), and Van Tilburg et al. (2015) have shown that the use of tailored brand identity signs, like fonts, designs and colours, significantly influence brand gender perceptions. Moreover, according to Grohmann (2009), the type of language in publications can be used to reinforce brand gender perceptions. Brand publications related to adventure and braveness can help to position a brand as masculine, while messages conveying feelings of tenderness and care, appealing to sensitivity, or highlighting the brand's gracefulness improve the perception of femininity (Grohmann, 2009).

Our research shows the asymmetrical importance of the two dimensions of brand gender, which is consistent with previous studies (Avery, 2012; Azar et al., 2018; Jung & Lee, 2006; Machado et al., 2019). Thus, managers must be aware that masculine brands impact loyalty through action (consumers' contributions to brand-related content), cognitive (perceived quality) and emotional (brand love) factors, while feminine brands affect

loyalty only through the emotional bond with the brand (brand love). They must thus develop different strategies for feminine and masculine brands to achieve loyalty.

Finally, the findings show that brand love is an important intermediate outcome that increases loyalty, stimulating consumers to easily accept and repurchase the brand's products and to choose the brand over others (Carroll & Ahuvia, 2006; Helme-Guizon & Magnoni, 2019; Loureiro et al., 2012). Therefore, managers should use the brand identity signs and marketing mix strategy to achieve the intended gender positioning, consequently fostering strong brand love relationships with consumers.

Limitations and further research directions

Like any research, this study had limitations that could present opportunities for further research. A relevant limitation was linked with the sampling procedure. We used a non-random convenience sampling technique (McDaniel & Gates, 2006). The sample profile could also be considered a limitation, as the data were only collected in Portugal and the sample consisted mainly of young respondents. Although this population is relevant with respect to Facebook users, this research should be replicated among older consumers to increase the generalisability of the findings.

Furthermore, the research model should be tested on other SNS platforms (e.g. Instagram, LinkedIn and Snapchat) to ensure the generalisability of the results from one platform to another. Moreover, testing this research model in other cultural contexts would permit unveiling the possible influence of cultural differences on the relationship between brand gender and brand loyalty. In this respect, it would be interesting to test the research model in highly feminine societies, as defined by Hofstede's (1980, 2001) cultural index, such as Sweden (5) or Norway (8) (with a value of 31, Portugal scores below the world average (48) for this dimension),¹ to understand if feminine brands assume higher relevance in these cultures.

In addition, in this research, we did not study one brand or product category in particular, as the aim was to analyse the influence of brand gender on consumer-brand-related responses on Facebook in general. Future research could include specific gendered brands or product categories – namely feminine, masculine, undifferentiated and androgynous brands/product categories – to provide a more realistic appraisal of the influence of brand gender on brand loyalty, consumers' contributions to brand-related content on SNSs, perceived brand quality and brand love. Moreover, future studies could explore the consumer's biological sex, the consumer's gender and the product category's gender (Allison et al., 1980; Alreck, 1994; Azar, 2013) as potential moderators of the relationships studied.

Note

1. <https://clearlycultural.com/geert-hofstede-cultural-dimensions/masculinity/>.

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References

- Aaker, D. A., & Jacobson, R. (1994). The financial information content of perceived quality. *Journal of Marketing Research*, 31(2), 191–201. <https://doi.org/10.1177/002224379403100204>
- Aaker, J. (1997). Dimensions of brand personality. *Journal of Marketing Research*, 34(3), 347–356. <https://doi.org/10.1177/002224379703400304>
- Algesheimer, R., Dholakia, U. M., & Herrmann, A. (2005). The social influence of brand community: Evidence from European car clubs. *Journal of Marketing*, 69(July), 19–34. <https://doi.org/10.1509/jmkg.69.3.19.66363>
- Allison, N., Golden, L., & Mullet, G. (1980). Sex-typed product images: The effects of sex, sex role self-concept and measurement implications. *Advances in Consumer Research*, 7(1), 604–609.
- Alreck, P. L. (1994). Commentary: A new formula for gendering products and brands. *Journal of Product & Brand Management*, 3(1), 6–18. <https://doi.org/10.1108/10610429410053059>
- Alreck, P. L., Settle, R. B., & Belch, M. A. (1982). Who responds to gendered ads, and how? *Journal of Advertising Research*, 22(2), 25–32.
- Avery, J. (2012). Defending the markers of masculinity: Consumer resistance to gender-bending. *International Journal of Research in Marketing*, 29(4), 322–336. <https://doi.org/10.1016/j.ijresmar.2012.04.005>

- Azar, S. L. (2013). Exploring brand masculine patterns: Moving beyond monolithic masculinity. *Journal of Product and Brand Management*, 22(7), 502–512. <https://doi.org/10.1108/JPBM-09-2013-0386>
- Azar, S. L. (2015). Toward an understanding of brand sexual associations. *Journal of Product and Brand Management*, 24(1), 43–56. <https://doi.org/10.1108/JPBM-05-2014-0607>
- Azar, S. L., Aimé, I., & Ulrich, I. (2018). Brand gender-bending: The impact of an endorsed brand strategy on consumers' evaluation of gendered mixed-target brands. *European Journal of Marketing*, 52(7/8), 1598–1624. <https://doi.org/10.1108/EJM-04-2017-0278>
- Azar, S. L., Machado, J., Vacas-de-Carvalho, L., & Mendes, A. (2016). Motivations to interact with brands on Facebook – Towards a typology of consumer–brand interactions. *Journal of Brand Management*, 23(2), 153–178. <https://doi.org/10.1057/bm.2016.3>
- Bagozzi, R. P., & Dholakia, U. M. (2006). Antecedents and purchase consequences of customer participation in small group brand communities. *International Journal of Research in Marketing*, 23(1), 45–61. <https://doi.org/10.2501/IJA-30-1-047-075>
- Bairrada, C. M., Coelho, F., & Coelho, A. (2018). Antecedents and outcomes of brand love: Utilitarian and symbolic brand qualities. *European Journal of Marketing*, 52(3/4), 656–682. <https://doi.org/10.1108/EJM-02-2016-0081>
- Batra, R., Ahuvia, A., & Bagozzi, R. P. (2012). Brand love. *Journal of Marketing*, 76(2), 1–16. <https://doi.org/10.1509/jm.09.0339>
- Bem, S. (1974). The measurement of psychological androgyny. *Journal of Consulting and Clinical Psychology*, 42(2), 155–162. <https://doi.org/10.1037/h0036215>
- Bem, S. (1985). Androgyny and gender schema theory: A conceptual and empirical integration. In T. Sonderegger (Ed.), *NE symposium on motivation: Psychology and gender* (pp. 179–226). University of Nebraska Press.
- Bergkvist, L., & Bech-Larsen, T. (2010). Two studies of consequences and actionable antecedents of brand love. *Journal of Brand Management*, 17(7), 504–518. <https://doi.org/10.1057/bm.2010.6>
- Berry, J. (2013). Bulking up: The 2013 colloquy loyalty census – Growth and trends in U.S. loyalty program activity. In *ColloquyTalk* (pp. 1–13). Cincinnati, OH: Colloquy White Paper. Retrieved June 2, 2018, from <http://www.totalcustomer.org/2013/06/25/whitepaper-download-2013-colloquy-loyalty-census/>
- Bıçakcıoğlu, N., İpek, I., & Bayraktaroğlu, G. (2018). Antecedents and outcomes of brand love: The mediating role of brand loyalty. *Journal of Marketing Communications*, 24(8), 863–877. <https://doi.org/10.1080/13527266.2016.1244108>
- Bloemer, J. M., & Kasper, H. D. (1995). The complex relationship between consumer satisfaction and brand loyalty. *Journal of Economic Psychology*, 16(2), 311–329. [https://doi.org/10.1016/0167-4870\(95\)00007-B](https://doi.org/10.1016/0167-4870(95)00007-B)
- Borna, S., & White, G. (2003). 'Sex' and 'gender': Two confused and confusing concepts in the 'women in corporate management' literature. *Journal of Business Ethics*, 47(2), 89–99. <https://doi.org/10.1023/A:1026082400801>
- Brakus, J. J., Schmitt, B. H., & Zarantonello, L. (2009). Brand experience: What is it? How is it measured? Does it affect loyalty? *Journal of Marketing*, 73(3), 52–68. <https://doi.org/10.1509/jmkg.73.3.052>
- Brislin, R. W. (1970). Back translation for cross-cultural research. *Journal of Cross-Cultural Psychology*, 1(3), 185–216. <https://doi.org/10.1177/135910457000100301>
- Brodie, R. J., Hollebeek, L., Biljana, J., & Ilic, A. (2011). Customer engagement: Conceptual domain, fundamental propositions and implications for research. *Journal of Service Research*, 14(3), 252–271. <https://doi.org/10.1177/1094670511411703>
- Brodie, R. J., Ilic, A., Biljana, J., & Hollebeek, L. (2013). Consumer engagement in a virtual brand community: An exploratory analysis. *Journal of Business Research*, 66(1), 105–114. <https://doi.org/10.1016/j.jbusres.2011.07.029>
- Bruhn, M., Schnebelen, S., & Schäfer, D. (2012). Are social media replacing traditional media in terms of brand equity creation? *Management Research Review*, 35(9), 770–790. <https://doi.org/10.1108/01409171211255948>

- Buil, I., Martínez, E., & De Chernatony, L. (2013). The influence of brand equity on consumer responses. *Journal of Consumer Marketing*, 30(1), 62–74. <https://doi.org/10.1108/07363761311290849>
- Carr, C. L. (2005). Tomboyism or lesbianism? Beyond sex/gender/sexual conflation. *Sex Roles*, 53(1–2), 119–131. <https://doi.org/10.1007/s11199-005-4286-5>
- 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>
- Chang, S.-J., van Witterloostuijn, A., & Eden, L. (2010). From the editors: Common method variance in international business research. *Journal of International Business Studies*, 41(2), 178–184. <https://doi.org/10.1057/jibs.2009.88>
- Chaudhuri, A., & Holbrook, M. B. (2001). The chain of effects from brand trust and brand affect to brand performance: The role of brand loyalty. *Journal of Marketing*, 65(2), 81–93. <https://doi.org/10.1509/jmkg.65.2.81.18255>
- Chevalier, J., & Mayzlin, D. (2006). The effect of word of mouth on sales: Online book reviews. *Journal of Marketing Research*, 43(3), 345–354. <https://doi.org/10.1509/jmkr.43.3.345>
- Claffey, E., & Brady, M. (2019). An empirical study of the impact of consumer emotional engagement and affective commitment in firm-hosted virtual communities. *Journal of Marketing Management*, 35(11–12), 1047–1079. <https://doi.org/10.1080/0267257X.2019.1601125>
- Clemenz, J., Brettel, M., & Moeller, T. (2012). How the personality of a brand impacts the perception of different dimensions of quality. *Journal of Brand Management*, 20(1), 52–64. <https://doi.org/10.1057/bm.2012.12>
- Conway, J., & Lance, C. (2010). What reviewers should expect from authors regarding common method bias in organizational research. *Journal of Business Psychology*, 25(3), 325–334. <https://doi.org/10.1007/s10869-010-9181-6>
- Darpy, D., & Levesque, A. (2001). The perceived brand age. *Proceedings of the 34th Annual Conference European Marketing Academy*, Universita Bocconi, Milan.
- De Bruyn, A., & Lilien, G. L. (2008). A multi-stage model of word-of-mouth influence through viral marketing. *International Journal of Research in Marketing*, 25(3), 151–163. <https://doi.org/10.1016/j.ijresmar.2008.03.004>
- Deaux, K. (1985). Sex and gender. *Annual Review of Psychology*, 36(1), 49–81. <https://doi.org/10.1146/annurev.ps.36.020185.000405>
- Dholakia, U., Bagozzi, R. P., & Pearo, L. K. (2004). A social influence model of consumer participation in network- and small-group-based virtual communities. *International Journal of Research in Marketing*, 21(3), 241–263. <https://doi.org/10.1016/j.ijresmar.2003.12.004>
- Dick, A. S., & Basu, K. (1994). Customer loyalty: Toward an integrated conceptual framework. *Journal of the Academy of Marketing Science*, 22(2), 99–113. <https://doi.org/10.1177/0092070394222001>
- Eelen, J., Özturan, P., & Verlegh, P. (2017). The differential impact of brand loyalty on traditional and online word of mouth: The moderating roles of self-brand connection and the desire to help the brand. *International Journal of Research in Marketing*, 34(4), 872–891. <https://doi.org/10.1016/j.ijresmar.2017.08.002>
- Erdoğan, I., & Büdeyri-Turan, I. (2012). The role of personality congruence, perceived quality and prestige on ready-to-wear brand loyalty. *Journal of Fashion Marketing and Management: An International Journal*, 6(4), 399–417. <https://doi.org/10.1108/13612021211265818>
- Evanschitzky, H., Ramaseshan, B., Woisetschlager, D., Richelsen, V., Blut, M., & Backhaus, C. (2011). Consequences of customer loyalty to the loyalty program and to the company. *Journal of the Academy of Marketing Science*, 40(5), 625–638. <https://doi.org/10.1007/s11747-011-0272-3>
- Fetscherin, M., Boulanger, M., Gonçalves Filho, G., & Souki, G. Q. (2014). The effect of product category on consumer brand relationships. *Journal of Product & Brand Management*, 23(2), 78–89. <https://doi.org/10.1108/JPBM-05-2013-0310>
- Flavián, C., Guinaliú, M., & Gurreea, R. (2006). The role played by perceived usability, satisfaction and consumer trust on website loyalty. *Information & Management*, 43(1), 1–14. <https://doi.org/10.1016/j.im.2005.01.002>

- Flint, D., Blocker, C., & Boutin, J., . P. (2011). Customer value anticipation, customer satisfaction and loyalty: An empirical examination. *Industrial Marketing Management*, 40(2), 219–230. <https://doi.org/10.1016/j.indmarman.2010.06.034>
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement errors. *Journal of Marketing Research*, 18(1), 39–50. <https://doi.org/10.1177/002224378101800104>
- Fornell, C., & Wernerfelt, B. (1987). Defensive marketing strategy by customer complaint management: A theoretical analysis. *Journal of Marketing Research*, 24(4), 337–346. <https://doi.org/10.1177/002224378702400401>
- Fournier, S. (1998). Consumers and their brands: Developing relationship theory in consumer research. *Journal of Consumer Research*, 24(4), 343–373. <https://doi.org/10.1086/jcr.1998.24.issue-4>
- Freling, T. H., & Forbes, L. P. (2005). An examination of brand personality through methodological triangulation. *Journal of Brand Management*, 13(2), 148–162. <https://doi.org/10.1057/palgrave.bm.2540254>
- Fry, J. N. (1971). Personality variables and cigarette brand choice. *Journal of Marketing Research*, 8(3), 298–304. <https://doi.org/10.1177/002224377100800303>
- Grohmann, B. (2009). Gender dimensions of brand personality. *Journal of Marketing Research*, 46(1), 105–119. <https://doi.org/10.1509/jmkr.46.1.105>
- Gummerus, J., Lilijander, V., Weman, E., & Philström, M. (2012). Customer engagement in a Facebook brand community. *Management Research Review*, 35(9), 857–877. <https://doi.org/10.1108/01409171211256578>
- Guthrie, S. (1993). *Faces in the clouds: A new theory of religion*. Oxford University Press.
- Ha, H.-Y., & Janda, S. (2014). The effect of customized information on online purchase intentions. *Internet Research*, 24(4), 496–519. <https://doi.org/10.1108/IntR-06-2013-0107>
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2009). *Multivariate data analysis* (7th ed.). Prentice Hall.
- Hanby, T. (1999). Brands – Dead or alive? *International Journal of Market Research*, 41(1), 7–18.
- Harman, H. H. (1976). *Modern factor analysis* (3rd ed.). Chicago University Press.
- Hayes, A. F. (2009). Beyond Baron and Kenny: Statistical mediation analysis in the new millennium. *Communication Monographs*, 76(4), 408–420. <https://doi.org/10.1080/03637750903310360>
- Heinonen, K. (2011). Consumer activity in social media: Managerial approaches to consumers' social media behavior. *Journal of Consumer Behaviour*, 10(6), 356–364. <https://doi.org/10.1002/cb.376>
- Helme-Guizon, A., & Magnoni, F. (2019). Consumer brand engagement and its social side on brand-hosted social media: How do they contribute to brand loyalty? *Journal of Marketing Management*, 35(7–8), 716–741. <https://doi.org/10.1080/0267257X.2019.1599990>
- Hennig-Thurau, T., Langer, M. F., & Hansen, U. (2001). Modeling and managing student loyalty: An approach based on the concept of relationship quality. *Journal of Service Research*, 3(4), 331–344. <https://doi.org/10.1177/109467050134006>
- Hofstede, G. (1980). *Culture's consequences: International differences in work-related values*. Sage Publications.
- Hofstede, G. (2001). *Culture's consequences: Comparing values, behaviors, institutions and organizations across nations* (2nd ed.). Sage Publications.
- 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., Glynn, M. S., & Brodie, R. J. (2014). Consumer brand engagement in social media: Conceptualization, scale development and validation. *Journal of Interactive Marketing*, 28(2), 149–165. <https://doi.org/10.1016/j.intmar.2013.12.002>
- Huber, F., Meyer, F., & Schmid, D. A. (2015). Brand love in progress – The interdependence of brand love antecedents in consideration of relationship duration. *Journal of Product & Brand Management*, 24(6), 567–579. <https://doi.org/10.1108/JPBM-08-2014-0682>

- Hudson, S., Huang, L., Roth, M. S., & Madden, T. J. (2016). The influence of social media interactions on consumer–brand relationships: A three-country study of brand perceptions and marketing behaviors. *International Journal of Research in Marketing*, 33(1), 27–41. <https://doi.org/10.1016/j.ijresmar.2015.06.004>
- Hunt, D., Atkin, D., & Krishnam, A. (2012). The influence of computer-mediated communication apprehension on motives for Facebook use. *Journal of Broadcasting and Electronic Media*, 56(2), 187–202. <https://doi.org/10.1080/08838151.2012.678717>
- Jung, K., & Lee, W. (2006). Cross-gender brand extensions: Effects of gender of the brand, gender of consumer, and product type on evaluation of cross-gender extensions. *Advance in Consumer Research*, 33(1), 67–74.
- Kemp, A. H. (2005). Getting what you paid for: Quality of service and wireless connection to the Internet. *International Journal of Information Management*, 25(2), 107–115. <https://doi.org/10.1016/j.ijinfomgt.2004.10.011>
- Kenny, D. A., Kashy, D., & Bolger, N. (1998). Data analysis in social psychology. In D. Gilbert, S. Fiske, & G. Lindzey (Eds.), *Handbook of social psychology* (4th ed., pp. 233–265). McGraw-Hill.
- Kressmann, F., Sirgy, M. J., Herrmann, A., Huber, F., Huber, S., & Lee, D. J. (2006). Direct and indirect effects of self-image congruence on brand loyalty. *Journal of Business Research*, 59(9), 955–964. <https://doi.org/10.1016/j.jbusres.2006.06.001>
- Kyoon Yoo, D., & Ah Park, J. (2007). Perceived service quality: Analyzing relationships among employees, customers, and financial performance. *International Journal of Quality & Reliability Management*, 24(9), 908–926. <https://doi.org/10.1108/02656710710826180>
- Langner, T., Bruns, D., Fischer, A., & Rossiter, J. R. (2016). Falling in love with brands: A dynamic analysis of trajectories of brand love. *Marketing Letters*, 27(1), 15–26. <https://doi.org/10.1007/s11002-014-9283-4>
- Langner, T., Fischer, A., & Kurten, D. (2009). The nature of brand love: Results from two exploratory studies. *Proceedings of the 8th Icoria*, Klagenfurt, Austria.
- Laroche, M., Habibi, M. R., Richard, M.-O., & Sankaranarayanan, R. (2012). The effects of social media based brand communities on brand community markers, value creation practices, brand trust and brand loyalty. *Computers in Human Behavior*, 28(5), 1755–1767. <https://doi.org/10.1016/j.chb.2012.04.016>
- Leckie, C., Nyadzayo, M. W., & Johnson, L. W. (2016). Antecedents of consumer brand engagement and brand loyalty. *Journal of Marketing Management*, 32(5–6), 558–578. <https://doi.org/10.1080/0267257X.2015.1131735>
- Lee, C. K. M., Ng, K. K. H., Chan, H. K., Choy, K. L., Tai, W. C., & Choi, L. S. (2018). A multi-group analysis of social media engagement and loyalty constructs between full-service and low-cost carriers in Hong Kong. *Journal of Air Transport Management*, 73(October), 46–57. <https://doi.org/10.1016/j.jairtraman.2018.08.009>
- Lee, H. J., Kumar, A., & Kim, Y.-K. (2010). Indian consumers' brand equity toward a US and local apparel brand. *Journal of Fashion Marketing and Management: An International Journal*, 14(3), 469–485. <https://doi.org/10.1108/13612021011061898>
- Lieven, T., Grohmann, B., Herrmann, A., Landwehr, J. R., & van Tilburg, M. (2014). The effect of brand gender on brand equity. *Psychology and Marketing*, 31(5), 371–385. <https://doi.org/10.1002/mar.20701>
- Lieven, T., Grohmann, B., Herrmann, A., Landwehr, J. R., & van Tilburg, M. (2015). The effect of brand design on brand gender perceptions and brand preference. *European Journal of Marketing*, 49(1–2), 146–169. <https://doi.org/10.1108/EJM-08-2012-0456>
- Lieven, T., & Hildebrand, C. (2016). The impact of brand gender on brand equity. *International Marketing Review*, 33(2), 178–195. <https://doi.org/10.1108/IMR-08-2014-0276>
- Lipsman, A., Mudd, G., Rich, M., & Bruich, S. (2012). The power of like: How brands reach (and influence) fans through social media marketing. *Journal of Advertising*, 42(1), 40–52. <https://doi.org/10.2501/JAR-52-1-040-052>
- Lorber, J. (1994). *Paradoxes of Gender*. Yale University Press.
- Loureiro, S. M. C., Ruediger, K. H., & Demetris, V. (2012). Brand emotional connection and loyalty. *Journal of Brand Management*, 20(1), 13–27. <https://doi.org/10.1057/bm.2012.3>

- Machado, J. C., Vacas-de-Carvalho, L., Azar, S. L., André, A. R., & Santos, B. P. (2019). Brand gender and consumer-based brand equity on Facebook: The mediating role of consumer-brand engagement and brand love. *Journal of Business Research*, 96(March), 376–385. <https://doi.org/10.1016/j.jbusres.2018.07.016>
- MacKinnon, D. P., Lockwood, C. L., & Williams, J. (2004). Confidence limits for the indirect effect: Distribution of the product and resampling approaches. *Multivariate Behavioral Research*, 39(1), 99–128. https://doi.org/10.1207/s15327906mbr3901_4
- Martin, B. A. S., & Gnoth, J. (2009). Is the Marlboro man the only alternative? The role of gender identity and self-construal salience in evaluations of male models. *Marketing Letters*, 20(4), 353–367. <https://doi.org/10.1007/s11002-009-9069-2>
- McAlexander, J. H., Schouten, J. W., & Koenig, H. F. (2002). Building brand community. *Journal of Marketing*, 66(1), 38–54. <https://doi.org/10.1509/jmkg.66.1.38.18451>
- McDaniel, C., Jr., & Gates, R. (2006). *Marketing research essentials* (5th ed.). John Wiley.
- Moi, T. (2005). *Sex, gender and the body: The student edition of what is a woman*. Oxford University Press.
- 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.2011.07.019>
- Moss, G., Hamilton, C., & Neave, N. (2007). Evolutionary factors in design preferences. *Journal of Brand Management*, 14(4), 313–323. <https://doi.org/10.1057/palgrave.bm.2550073>
- Muntinga, D. G., Moorman, M., & Smit, E. G. (2011). Introducing COBRAS: Exploring motivations for brand-related social media use. *International Journal of Advertising*, 30(1), 13–46. <https://doi.org/10.2501/IJA-30-1-013-046>
- Neale, L., Robbie, R., & Martin, B. (2016). Gender identity and brand incongruence: When in doubt, pursue masculinity. *Journal of Strategic Marketing*, 24(5), 347–359. <https://doi.org/10.1080/0965254X.2015.1011203>
- Nikhashemi, S. R., Valaei, N., & Tarofder, A. K. (2017). Does brand personality and perceived product quality play a major role in mobile phone consumers' switching behaviour? *Global Business Review*, 18(3), S108–S127. <https://doi.org/10.1177/0972150917693155>
- Nisar, T. M., & Whitehead, C. (2016). Brand interactions and social media: Enhancing user loyalty through social networking sites. *Computers in Human Behavior*, 62(September), 713–753. <https://doi.org/10.1016/j.chb.2016.04.042>
- Oakley, A. (1972). *Sex, Gender and Society*. Temple Smith.
- Oliver, R. L. (1999). Whence consumer loyalty? *The Journal of Marketing*, 63(4), 33–44. <https://doi.org/10.1177/00222429990634s105>
- Orth, U. R., Limon, Y., & Rose, G. (2010). Store-evoked affect, personalities and consumer emotional attachment to brands. *Journal of Business Research*, 63(11), 1202–1208. <https://doi.org/10.1016/j.jbusres.2009.10.018>
- Palusuk, N., Koles, B., & Hasan, R. (2019). 'All you need is brand love': A critical review and comprehensive conceptual framework for brand love. *Journal of Marketing Management*, 35(1–2), 97–129. <https://doi.org/10.1080/0267257X.2019.1572025>
- Pappu, R., Quester, P. G., & Cooksey, R. W. (2005). Consumer-based brand equity: Improving the measurement – Empirical evidence. *Journal of Product & Brand Management*, 14(3), 143–154. <https://doi.org/10.1108/10610420510601012>
- Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1985). A conceptual model of service quality and its implications for future research. *Journal of Marketing*, 49(4), 41–50. <https://doi.org/10.1177/002224298504900403>
- Patterson, A. (2011). Social-networkers of the world, unite and take over: A meta-introspective perspective on the Facebook brand. *Journal of Business Research*, 65(4), 527–534. <https://doi.org/10.1016/j.jbusres.2011.02.032>
- Pew Research Center (2017). *Not everyone in advanced economies is using social media*. Retrieved October 4, 2018, from <http://www.pewresearch.org/fact-tank/2017/04/20/not-everyone-in-advanced-economies-is-using-social-media/>

- Pitta, D., Franzak, F., & Fowler, D. (2006). A strategic approach to building online customer loyalty: Integrating customer profitability tiers. *Journal of Consumer Marketing*, 23(7), 421–429. <https://doi.org/10.1108/07363760610712966>
- Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879–903. <https://doi.org/10.1037/0021-9010.88.5.879>
- Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*, 40(3), 879–891. <https://doi.org/10.3758/BRM.40.3.879>
- Preacher, K. J., Rucker, D. D., & Hayes, A. F. (2007). Addressing moderated mediation hypotheses: Theory, methods, and prescriptions. *Multivariate Behavioral Research*, 42(1), 185–227. <https://doi.org/10.1080/00273170701341316>
- Pryzgod, J., & Chrisler, J. C. (2000). Definitions of gender and sex: The subtleties of meaning. *Sex Roles*, 43(7/8), 553–569. <https://doi.org/10.1023/A:1007123617636>
- Puzakova, M., Kwak, H., & Rocereto, J. (2009). Pushing the envelope of brand and personality: A phenomenal view from brand anthropomorphization. *Advances in Consumer Research*, 36(2), 1–8.
- Raj, M. P. M., & Roy, S. (2015). Impact of brand image on consumer decision-making: A study on high-technology products. *Global Business Review*, 16(3), 463–477. <https://doi.org/10.1177/0972150915569934>
- Ramaseshan, B., & Stein, A. (2014). Connecting the dots between brand experience and brand loyalty: The mediating role of brand personality and brand relationships. *Journal of Brand Management*, 21(7–8), 664–683. <https://doi.org/10.1057/bm.2014.23>
- Ramaseshan, B., & Tsao, H. (2007). Moderating effects of the brand concept on the relationship between brand personality and perceived quality. *Journal of Brand Management*, 14(6), 458–466. <https://doi.org/10.1057/palgrave.bm.2550090>
- Riegner, C. (2007). Word of mouth on the web: The impact of Web 2.0 on consumer purchase decisions. *Journal of Advertising Research*, 36(2), 351–358. <https://doi.org/10.2501/S0021849907070456>
- Romaniuk, J., & Nenycz-Thiel, M. (2013). Behavioral brand loyalty and consumer brand associations. *Journal of Business Research*, 66(1), 67–72. <https://doi.org/10.1016/j.jbusres.2011.07.024>
- Rossiter, J. R. (2012). A new C-OAR-SE-based content-valid and predictively valid measure that distinguishes brand love from brand liking. *Marketing Letters*, 23(3), 905–916. <https://doi.org/10.1007/s11002-012-9173-6>
- Roy, P., Khandeparkar, K., & Motiani, M. (2016). A loveable personality: The effect of brand personality on brand love. *Journal of Brand Management*, 23(5), 97–113. <https://doi.org/10.1057/s41262-016-0005-5>
- Roy, S. K., Eshghi, A., & Sarkar, A. (2013). Antecedents and outcomes of brand love. *Journal of Brand Management*, 20(4), 325–332. <https://doi.org/10.1057/bm.2012.24>
- Schamari, J., & Schaeffers, T. (2015). Leaving the home turf: How brands can use webcare on consumer-generated platforms to increase positive consumer engagement. *Journal of Interactive Marketing*, 30(May), 20–33. <https://doi.org/10.1016/j.intmar.2014.12.001>
- Schau, H. J., Müniz, A. M., & Arnould, E. J. (2009). How brand community practices create value. *Journal of Marketing*, 73(September), 30–51. <https://doi.org/10.1509/jmkg.73.5.30>
- Schivinski, B., & Dabrowski, D. (2015). The impact of brand communication on brand equity through Facebook. *Journal of Research in Interactive Marketing*, 9(1), 31–53. <https://doi.org/10.1108/JRIM-02-2014-0007>
- Schivinski, B., Muntinga, D. G., Pontes, H. M., & Lukasik, P. (2019). Influencing COBRAs: The effects of brand equity on the consumer's propensity to engage with brand-related content on social media. *Journal of Strategic Marketing*. Advance online publication. <https://doi.org/10.1080/0965254X.2019.1572641>
- Sekaran, U. (1983). Methodological and theoretical issues and advancements in cross-cultural research. *Journal of International Business Studies*, 14(2), 61–73. <https://doi.org/10.1057/palgrave.jibs.8490519>

- Shao, G. (2009). Understanding the appeal of user-generated media: A uses and gratification perspective. *Internet Research*, 19(1), 7–25. <https://doi.org/10.1108/10662240910927795>
- Simon, F., & Tossan, V. (2018). Does brand–consumer social sharing matter? A relational framework of customer engagement to brand-hosted social media. *Journal of Business Research*, 85(1), 175–184. <https://doi.org/10.1016/j.jbusres.2017.12.050>
- Smothers, N. (1993). Can products have brand charisma? In D. A. Aaker & A. L. Biel (Eds.), *Brand equity and advertising* (pp. 92–112). Lawrence Erlbaum Associates.
- Spence, J., & Helmreich, R. (1978). *Masculinity and femininity: Their psychological dimensions, correlates, and antecedents*. University of Texas Press.
- Statista (2018). *Corporate social media usage of fortune 500 companies in 2016*. Retrieved June 6, 2018, from <https://www.statista.com/statistics/626872/fortune-500-corporate-social-media-usage/>
- Statista (2019). *Distribution of Instagram users worldwide as of January 2019, by age and gender*. Retrieved November 2019, from <https://www.statista.com/statistics/248769/age-distribution-of-worldwide-instagram-users/>
- Su, J., & Tong, X. (2016). Brand personality, consumer satisfaction, and loyalty: A perspective from denim jeans brands. *Family and Consumer Sciences Research Journal*, 44(4), 427–446. <https://doi.org/10.1111/fcsr.12171>
- Subrahmanyam, A. (2017). Relationship between service quality, satisfaction, motivation and loyalty: A multi-dimensional perspective. *Quality Assurance in Education*, 25(2), 171–188. <https://doi.org/10.1108/QAE-04-2013-0016>
- Sung, Y., & Kim, J. (2010). Effects of brand personality on brand trust and brand affect. *Psychology and Marketing*, 27(July), 639–661. <https://doi.org/10.1002/mar.20349>
- Thakor, M., & Kohli, C. (1996). Brand origin: Conceptualization and review. *Journal of Consumer Marketing*, 13(3), 27–42. <https://doi.org/10.1108/07363769610147929>
- Thomson, M., MacInnis, D. J., & Park, W. C. (2005). The ties that bind: Measuring the strength of consumers' emotional attachments to brands. *Journal of Consumer Psychology*, 15(1), 77–91. https://doi.org/10.1207/s15327663jcp1501_10
- Tsai, W.-H. S., & Men, L. R. (2013). Motivations and antecedents of consumer engagement with brand pages on social networking sites. *Journal of Interactive Advertising*, 13(2), 76–87. <https://doi.org/10.1080/15252019.2013.826549>
- van Doorn, J., Lemon, K. N., Mittal, V., Nass, S., Doreen, P., Pirner, P., & Verhoef, P. C. (2010). Customer engagement behavior: Theoretical foundations and research directions. *Journal of Service Research*, 13(3), 252–266. <https://doi.org/10.1177/1094670510375599>
- van Tilburg, M. V., Lieven, T., Herrmann, A., & Townsend, C. (2015). Beyond “pink it and shrink it: Perceived product gender, aesthetics, and product evaluation. *Psychology & Marketing*, 32(4), 422–437. <https://doi.org/10.1002/mar.20789>
- Veloutsou, C. (2007). Identifying the dimensions of the product-brand and consumer relationship. *Journal of Marketing Management*, 23(1–2), 7–26. <https://doi.org/10.1362/026725707X177892>
- 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-02-2014-0878>
- Vernuccio, M., Pagani, M., Barbarossa, C., & Pastore, A. (2015). Antecedents of brand love in online network-based communities: A social identity perspective. *Journal of Product & Brand Management*, 24(7), 706–719. <https://doi.org/10.1108/JPBM-12-2014-0772>
- Vitz, P. C., & Johnston, D. (1965). Masculinity of smokers and the masculinity of cigarette images. *Journal of Applied Psychology*, 49(3), 155–159. <https://doi.org/10.1037/h0022168>
- Wallace, E., Buil, I., & De Chernatony, L. (2012). Facebook “friendship” and brand advocacy. *Journal of Brand Management*, 20(2), 128–146. <https://doi.org/10.1057/bm.2012.45>
- Watson, G., Beck, J., Henderson, C., & Palmatier, R. (2015). Building, measuring, and profiting from customer loyalty. *Journal of the Academy of Marketing Science*, 43(6), 790–825. <https://doi.org/10.1007/s11747-015-0439-4>
- Worth, L. T., Smith, J., & Mackie, D. M. (1992). Gender schematicity and preference for gender-typed products. *Psychology and Marketing*, 9(1), 17–30. [https://doi.org/10.1002/\(j\)1520-6793](https://doi.org/10.1002/(j)1520-6793)

- Yoo, B., & Donthu, N. (2001). Developing and validating a multidimensional consumer-based brand equity scale. *Journal of Business Research*, 52(1), 1–14. [https://doi.org/10.1016/S0148-2963\(99\)00098-3](https://doi.org/10.1016/S0148-2963(99)00098-3)
- Yoshida, M., Gordon, B., Nakazawa, M., Shibuya, S., & Fujiwara, N. (2018). Bridging the gap between social media and behavioral brand loyalty. *Electronic Commerce Research and Applications*, 28 (March–April), 208–218. <https://doi.org/10.1016/j.eierap.2018.02.005>
- Zeithaml, V. A. (1988). Consumer perceptions of price, quality, and value: A means–end model and synthesis of evidence. *Journal of Marketing*, 52(3), 2–22. <https://doi.org/10.1177/002224298805200302>
- Zhao, X., Lynch, J. G., & Chen, Q. (2010). Reconsidering Baron and Kenny: Myths and truths about mediation analysis. *Journal of Consumer Research*, 37(2), 37–46. <https://doi.org/10.1086/651257>