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# Consumer's love for functional brands: the Aspirin case

Functional  
brands

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477

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## Abstract

**Purpose** – This study aims to check which scale of love brand developed by Carroll and Ahuvia (2006) or Mohammadian and Karimpour (2014) have better adhesion to the perception of Aspirin love brand, that is, a functional brand.

**Design/methodology/approach** – The conceptual models and associated hypotheses are tested with a sample of 321 consumers. Data were analyzed through a structural equation model.

**Findings** – The results demonstrate strong relationships between the three antecedents (brand engagement, confidence and overall attitude) and brand love and between brand love and its consequences (brand loyalty, positive word of mouth and brand purchase intention) in both scales.

**Research limitations/implications** – The main limitation of the study relates to the sample, which is only of Portuguese consumers and does not match the main socio-demographic characteristics of the population. Therefore, the study should be seen as exploratory on the brand love in the case of functional brands.

**Practical implications** – The knowledge that a consumer can establish an emotional relationship with a functional brand, in a highly competitive sector as the pharmaceutical sector, in particular in drugs that are sold without a prescription, can help managers in defining their communication strategy appealing to the emotions and long-term involvement with the consumed.

**Originality/value** – Few studies about the background of the brand love and those that exist are linked to hedonic product categories and self-expressive brands. It is the first time that the brand love for a medicine is evaluated.

**Keywords** Consumer behaviour, Brand love, Aspirin, Functional brands

**Paper type** Research paper



## 1. Introduction

Brand love is the central concept of this work. This theme, still poorly explored in marketing, has acquired relevance and interest because it is important for the competitiveness of products and brands, as well as for the understanding of consumer attitudes facing brands (Carroll and Ahuvia, 2006). The topic is relevant because feeling and emotion are enhancers of acceptance and they solidify the brand in the market and

in the minds of consumers, in terms of the compromise with the brand (Breivik and Thorbjørnsen, 2008; Hwang and Kandampully, 2012).

Also, there are few studies regarding the background of the brand love and those that exist are linked to a hedonic product category and self-expressive brands. The present work evaluates the brand love to Aspirin, one of the medicines better known and consumed around the world, and covers a gap in the literature about the brand love on utilitarian products. In 1999, the Aspirin completed 100 years, and it is indicated for different types of pain and illness (headaches, fever, rheumatism, tremors, acute myocardial infarction, cerebrovascular thrombosis, diabetes treatments, among others). In several studies, it is proven its effectiveness, with the evidence of the effect of aspirin in reducing overall cancer incidence and mortality in the general population (Cuzick *et al.*, 2014).

The long market presence of Aspirin and its high reputation in the prevention and treatment of the disease make consumers satisfied with it. Carroll and Ahuvia (2006) showed that a satisfied customer tends to love the brand. These authors also found that brand love is an antecedent to brand loyalty and satisfaction is an antecedent to brand love. The satisfaction has been regarded as very important in creating relationships (Oliver, 1980). In this context, marketers must define a strategy to make the satisfied customers to love the brand. This study intends to identify which love brand scales developed by Carroll and Ahuvia (2006) or Mohammadian and Karimpour (2014) have better adhesion to the perception of Aspirin love brand.

The rest of the work is divided as follow. Section 2 does the framing of the brand Aspirin, within the Portuguese pharmaceutical market. Section 3 presents the theoretical framework, comprising a brief literature review of the antecedents and consequences of brand love and raises the hypotheses of research. In Section 4, the conceptual model and the methodology are presented. Section 5 presents the results. Finally, the conclusion summarizes the main outcomes of the research, the limitations of the study and suggestions for future studies.

## 2. The brand Aspirin on the health sector

The brand Aspirin® was registered in Berlin, in 1899 and one year after in the USA. In Portugal, the Aspirin is commercialized since 1951. In 2015, Aspirin was still the third consumer health product of Bayer with largest sales, all over the world (in [www.annualreport2015.bayer.com/](http://www.annualreport2015.bayer.com/)).

According with INFARMED (the Portuguese authority for pharmaceuticals), nowadays Bayer commercializes several forms of Aspirin on the Portuguese market (Table I).

In Portugal, Bayer is the unique user of brand Aspirin and the designation “aspirin” is not used by other sellers of acetylsalicylic acid. The brand is in two completely different market segments. The first is that of the analgesics and antipyretics (this was the original market for Aspirin) and include all Aspirin brand products; the second is that of anti-platelet aggregation drugs, including only *Aspirina GR*. As a result of this classification, *Aspirina GR* is a prescription drug; all the others are over-the-counter (OTC) drugs.

This distinction is important for our study. Because we are evaluating the brand love of consumers for the Aspirin and its antecedents and consequences, the focus of our study are the OTC drugs because for these all the decisions of consumption are made by the patient. For the prescription drugs, the decisions of consumption are made by the doctors or by doctors and patients together.

Substance*	Commercial name*	Pharmaceutical form*	Dosage* (mg)	Use**
Acetylsalicylic acid	Aspirina 500 mg Granulado	Grain	500	Pain; fever; flu and colds
Acetylsalicylic acid	Aspirina GR 100 mg Comprimidos	Gastro-resistant tablet	100	Cardiovascular diseases
Acetylsalicylic acid	Aspirina Microactive	Coated tablet	500	Mild to moderate pain; fever; flu and colds
Acetylsalicylic acid	Migraspirina	Effervescent tablets	500	Strong headaches and migraines
Acetylsalicylic acid + ascorbic acid	Aspirina C	Effervescent tablets	400 + 240	Pain; fever; flu and colds

**Notes:** \*Retrieved from [www.infarmed.pt/infomed/inicio.php](http://www.infarmed.pt/infomed/inicio.php) on 26/02/2016; \*\*Retrieved from [www.bayer.pt/produtos/produtos-bayer-de-a-a-z/](http://www.bayer.pt/produtos/produtos-bayer-de-a-a-z/) on 26/02/2016

**Table I.**  
Aspirin in Portugal

The use of acetylsalicylic acid for the prevention of heart diseases had gained importance in the past years. In a survey conducted in 2005, almost one-fifth of US adults reported taking Aspirin every day or every other day. Splitting the population, 53.9 per cent of those who have a diagnostic of indicators of heart disease reported taking Aspirin every day or every other day as compared with 14.8 per cent of those who were never diagnosed with indicators of heart disease (Soni, 2007). In 2014, in Portugal, the acetylsalicylic acid was the fourth substance with more packages sold in the SNS (National Health Service). The product with more packages sold was *Tromalyt 150mg*, a brand for acetylsalicylic acid. The *Aspirin GR* was not even on the top one hundred (INFARMED, 2015).

According with Castro (2013), in Portugal in 2000, Aspirin was the fourth brand drug with more packages sold. This author performed a study about the impact of the generic competition on brands sales, finding that, despite an initial negative impact of the generic competition on Aspirin sales, the brand was able to maintain the number of packages sold after five years of the entrance of the first generic competitor. This is a clear signal of the strength of the brand Aspirin in Portugal on the OTC market.

### 3. The hypotheses and its background

A consumer relationship with a brand is similar to a relationship between individuals. Consumer behaviour research argues that the significances that individuals give to specific objects can lead to emotional sets or attachment in the face of such objects (Kogut and Kogut, 2011). Brand love is a relationship between the consumer and the brand, including the perception of this relationship. The brand love, analyzed by the three components of the triangular theory of love (Sternberg, 1986), promotes a better understanding on the evolution of that relationship. Keh *et al.* (2007) proved that the brand love involves the three dimensions of Sternberg's theory (intimacy, passion and commitment). The authors claim that brand love provides favourable consumer behaviour, showing a direct relationship between brand quality and consumer satisfaction with brand love, thus validating these constructs as antecedents of feeling. Ahuvia *et al.* (2009) present a general theory of love applied to different contexts. The

theory is inspired by the pioneering studies of Ahuvia (1993) that, in turn, was based on studies by Aron and Aron (1986). Ahuvia *et al.* (2009) conceive love in two dimensions – the level of integration with the “self” and the desired level of self-integration.

The brand love can be defined as the degree of emotional attachment that a satisfied customer has for a particular brand, which is the result of a relationship established with loyalty and positive word of mouth with the brand (Reimann *et al.*, 2012).

According to Carroll and Ahuvia (2006), brand love is defined as the degree of passion and connection that a satisfied consumer has with a brand. However, theorists reveal quite a difficulty to define what kind of love a person feels for a brand (Batra *et al.*, 2012). But, all are certain that there is some kind of brand love because there are brands that have a higher degree of loyalty than other brands (Batra *et al.*, 2012; Carroll and Ahuvia, 2006). For Kapferer (2004), Kotler and Keller (2006) and Martins (1999), in the construction of a brand process, emotions acquire a decisive role. There are numerous studies whose aim was focused on the interdependence of the feelings of consumers and brands, highlighting the connection of consumers with brands (Thomson *et al.*, 2005), commitment (Samuelsen and Sandvik, 1998), trust (Chaudhuri and Holbrook, 2001) and loyalty (Oliver, 1999).

More recently, Batra *et al.* (2012) developed a new study on brand love. The authors are faced with the lack of theoretical content and the lack of agreement among its theorists about the ideal for calculating a metric of a brand love. The authors, in their qualitative study, suggest that the brand love is formed from the conception of the consumer himself.

In short, consensus has not yet been achieved on what is really the brand love and what are the influential dimensions for the construction of this feeling, as well as their consequences. It is known that the brand love resembles interpersonal love, according to the results obtained in several exploratory studies analyzed, this feeling, love, the universe beyond interpersonal relationships adjusting to the brands, products and articles (Fetscherin, 2014; Huber *et al.*, 2015; Wallace *et al.*, 2014).

As the discussion on the measurement of brand love yet remains open, in this paper, we consider appropriate to verify which of the scales of measurement – that of Carroll and Ahuvia (2006) or Mohammadian and Karimpour (2014) – fit more appropriately to the data about the brand Aspirin, an utilitarian product, what is one of the innovative aspects of research and which can add value to the literature on the relationship of consumer with brands.

### *3.1 Hypotheses on the antecedents of the brand love*

The consumer relationship with the brand suggests that there are quality relationships between consumers and brands. When considering functional brands these quality relationships and satisfaction become quite relevant.

As antecedents to the brand love, this paper considers the brand engagement, the confidence and the overall attitude valence.

The brand engagement presumes that consumers wish to invest time, energy, money, or other resources, beyond those already invested in the purchase or consumption (Keller, 2003). Bergkvist and Bech-Larsen (2010) observed a relationship between brand engagement and brand love. The authors highlight the brand engagement taking into account that it is the result of the other three variables relating to the resonance of the brand, and, hence, the construction required a strong brand:

*H1(A e B).* Brand engagement positively influences the Aspirin brand love.

In the context of marketing, the brand attitude can be understood as a positive or negative trend in the face of the brand (Madhavaram and Appan, 2010). The attitude can be defined as the psychological propensity to evaluate a particular object, with some degree of like/dislike. This construct has been central within the marketing literature because to understand how consumers think and feel about the objects can help predict consumer behaviour, choice and its affections (Pritchard and Funk, 2010).

According with Fishbein and Ajzen (1975), the attitude is the way through which one can keep a predisposition seized with respect to a particular subject and contains three elements: the cognitive, affective and behavioural component. The first includes the concepts, associations and connections that an individual establishes with a subject. The second consists of feelings, mind position and nervous and emotional activity against a subject. The third contains the actions that the person makes or intends to make in the face of a subject (Sanzo *et al.*, 2003). Chang and Chieng (2006) described the attitude as the overall rating, positive or negative, of a specific brand. They believe that the emotional experience can develop positive or negative assessments in the face of a brand that will result in attitude towards consumer brand.

As an antecedent of brand love and regarding the affective component, Batra *et al.* (2012) refer to the overall attitude valence as an aspect of brand love which constitutes an important variable, such as satisfaction, favourable or unfavourable evaluation and comparison with the ideal brand:

*H2(A e B)*. The overall attitude valence influences positively the Aspirin brand love.

Batra *et al.* (2012) introduce confidence/trust as one of the backgrounds to the brand love and believe that this construct is related to certain feelings or assessment of the beloved brand. As this concept is related to the trust, it can be defined as a certain expectation given the intention of the brand and the reliability in terms of consumer risk. This concept is based on social psychology, economics, management and marketing and implies the existence of risk as a critical condition of trust affecting the behavior and is related to variables such as, perceived quality, confidence and expectations (Delgado-Ballester, 2004). Trust is linked to conditions of risk, uncertainty and lack of control and has been introduced as a mechanism that absorbs the uncertainty and that can serve as a pledge in the hands of the consumer (Sichtmann, 2007).

The studies show that trust is an element underlying the purchase intent, brand loyalty and commitment and a key component to reduce the perceived risk of the relationship and the long-term construction of the connections between consumers and brands (Kim and Jones, 2009; Albert and Merunka, 2013). Chaudhuri and Holbrook (2001) suggest that trust is the willingness of the consumer to believe in the ability of the brand to its expected function. Thus, a trusted brand can result in more purchases, increased market share and brand loyalty (Ruparelia *et al.*, 2010). The trust is also one of the core elements of the relational marketing and considered as an aspect of the brand commitment and brand affect, two emotional constructs close to the brand love. Albert *et al.* (2008) shows that consumers who rely on the beloved brands are never disappointed and have a permanent feeling of satisfaction when using the brand:

*H3(A e B)*. The confidence influences positively the Aspirin brand love.

### 3.2 Hypotheses on the consequences of the brand love

Consumers who love a brand become loyal consumers, with permanent intention to buy the brand and capable of positive word-of-mouth. Then, we considered that brand love will influence the brand loyalty, positive word-of-mouth and the intention of purchase.

Nowadays, brand love is a vastly debated subject because it is linked to high levels of brand loyalty and a positive word-of-mouth (Carroll and Ahuvia, 2006). Consumers who feel love for brands are more willing to talk about them through a process of identity construction (Batra *et al.*, 2012), and the influence of brand love for a positive word-of-mouth has been demonstrated (Ahuvia and Carroll, 2006; Albert and Merunka, 2013). Word-of-mouth is described as the process by which consumers share information and opinions about the brands, the products and services:

*H4(A e B).* The Aspirin brand love positively influences the word of mouth.

Miniard *et al.* (1983) argued that intention of purchase is influenced by the attitude towards the brand. Eagly and Chaiken (1993) confirm that consumer satisfaction with the brand influences the disposal for buying the brand. Bloemer and Kasper (1995) highlight the differences between brand loyalty and purchase intention, suggesting that the purchase intention refers to the purchase of a brand that prevails in the current behaviour:

*H5(A e B).* The Aspirin brand love positively influences the intention to purchase.

Related to the consequences of brand love, several studies show that high levels of brand love lead to favourable results for brands such as greater brand loyalty (Fournier, 1998; Bauer *et al.*, 2007; Agrawal *et al.*, 2012). In consumer marketing, the trust influences both the attitudinal loyalty and the behavioural loyalty (Chaudhuri and Holbrook, 2001). Thus, whereas the trust is one of the priors of brand love, a consumer who feels love for a brand will have a tendency to loyal behaviours (Agrawal *et al.*, 2012). Dick and Basu (1994) also indicate that the emotional stadium of the consumer influences its brand loyalty. It is well established that attitudinal loyalty influences the consumer's ability to advocate for the brand (Fullerton, 2005; Harrison-Walker, 2001) and consumers emotionally committed with the brand promote positive word of mouth (Dick and Basu, 1994):

*H6(A e B).* The Aspirin brand love positively influences brand loyalty.

## 4. Methods

In this work, we chose to follow a quantitative methodology. The quantitative methodology is used in descriptive research to relate variables and draw conclusions. This quantitative methodology has gone through:

- a confirmatory factor analysis (CFA) was conducted in the scale used to measure the constructs; and
- the hypotheses are tested using structural equation modelling.

Two rival models were estimated to check which of the scales of the brand love presents better adherence to data.

#### 4.1 Research design and sample

We opted for a structured questionnaire to ensure that all respondents answer the same questions. Removing the issues of socio-demographic characteristics, all other questions were measured with five-point Likert scales. The questionnaire is divided in two parts. The first contains information regarding the characterization of individuals and the second part contains questions related to the research objectives.

Once interrogating the population was not feasible, we chose to collect the information through an online survey, in the case of a convenience sample, because it was distributed by electronic addresses known. Thus, 321 valid questionnaires were collected.

#### 4.2 Construct measures

All constructs in the proposal research models are measured using multi-item scales. Scales items in the questionnaire are measured with a five-point Likert scale (anchored by 1 = strongly disagree and 5 = strongly agree).

To measure the brand love, we used two scales: one from [Carroll and Ahuvia \(2006\)](#) with six items and another from [Mohammadian and Karimpour \(2014\)](#) with five items. To measure brand engagement, we used the [Sprott et al. \(2009\)](#) scale with eight items. The confidence and the overall attitude valence was measured with [Batra et al. \(2012\)](#), [Albert et al. \(2008 and 2009\)](#) adapted scales. The word-of-mouth was measured with four items of [Carroll and Ahuvia \(2006\)](#) scale.

The proposal models in the [Figures 1 and 2](#) shows the hypothesized relationships.

### 5. Results and discussion

#### 5.1 Description of respondents

Within our sample of 321 respondents, 56 per cent were female, more than 76 per cent were between 20 and 60 years of age, 44 per cent were married, 44 per cent had a net monthly income from €1,001 to 2000 and 58 per cent had higher education.

#### 5.2 Measurement model

Initially, an exploratory factor analysis was performed to verify the items that should be kept in each of the scales used. The items whose commonalities were less than 0.7 were eliminated. In the scale of brand love from [Carroll and Ahuvia \(2006\)](#), of the six initial items, we retained three that explain 84.314 per cent of the total variance of the data. From the brand love scale of [Mohammadian and Karimpour \(2014\)](#), the five initial items have been whittled down to three that explain 83.22 per cent of the variance of the data. The scale of brand engagement of [Sprott et al. \(2009\)](#) with eight items was reduced to six items that explain 79.338 per cent of the variance of the data. Finally, the scale of the word-of-mouth of [Carroll and Ahuvia \(2006\)](#) that contains four original items was reduced to three explaining 84.34 per cent of the variance of the data.

A scale is considered of good quality if it is reliable and valid. The evaluation of the psychometric properties of the scales used should be made according to the suggestions of methodology by [Churchill \(1979\)](#) and [Bollen \(1989\)](#). This involves ensuring that the scales are reliable, have validity and are unidimensional.

The assessment of measurement reliability and validity relies on a CFA that contains all the multi-item constructs in your models, estimating using AMOS 21.0 software. The results of the final CFA appears in [Table II](#); the final measurement models provide a good fit to the data according to various fit statistics.

The chosen indicators to analyze the goodness of the adjustment are the ones suggested by [Hair et al. \(2006\)](#) as the absolute indicators, Chi-square standardized, RMSEA (root mean square error of approximation), GFI (goodness-of-fit), AGFI (adjusted goodness-of-fit index), CFI (confirmatory fit index) and IFI (incremental fit index). The Chi-square standardized presents acceptable values when these are comprised between one and three ([Hair et al., 2006](#)). We used RMSEA instead of RMSSR (Root Mean Square Residual) because the estimated models are based on the covariance data matrix. This indicator must be comprised between values from 0.05 (good fitness) and 0.08 (acceptable fitness). The GFI (goodness-of-fit) is an index of goodness of the adjustment that represents the total fitness levels, without correction in relation to degrees of freedom. High values of this indicator show good fitness, although there are not established minimum acceptable levels.

From the results, it is verified that the constructs are appropriate to measure what was intended. The [Table II](#) demonstrates the high internal consistency of the constructs. In each case, the Cronbach's  $\alpha$  exceed 0.7, as [Nunnally and Bernstein \(1994\)](#) recommend. The composite reliability of each factor is greater than 0.6 ([Bagozzi and Yi, 1988](#)) and the average variance extracted exceeds 0.5 ([Fornell and Larcker, 1981](#)). As evidence of

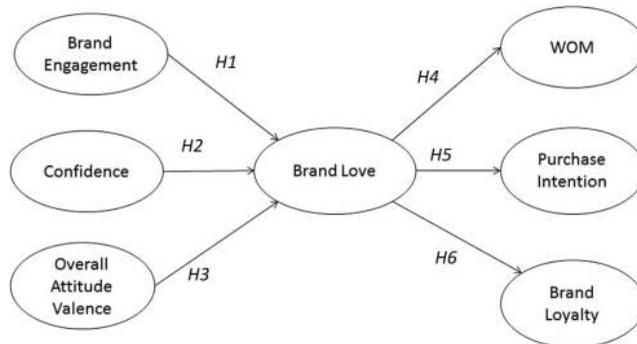


Figure 1.  
Model A

Source: Carroll and Ahuvia (2006)

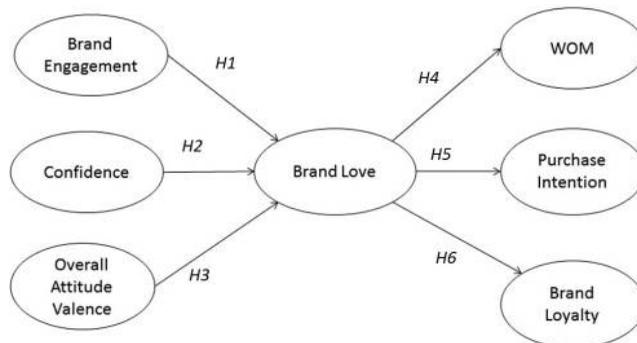


Figure 2.  
Model B

Source: Mohammadian and Karimpour (2014)

Construct	Items	Factor loading	CR	AVE	$\alpha$
Brand love – Carroll and Ahuvia (2006)	BL3. This brand makes me very happy	0.833*	0.948	0.859	0.906
	BL5. I am passionate about this brand	0.948*			
	BL6. I am very attached to this brand	0.843*			
Brand love (Mohammadian and Karimpour, 2014)	AM1. This brand is my only choice	0.860*	0.943	0.847	0.899
	AM2. I would buy this brand again even I hear bad things about it	0.877*			
	AM3. I am prepared to defend this brand in every situation	0.858*			
	BE2. I consider my favourite brands to be a part of myself	0.863*			
	BE3. I often feel a personal connection between my brands and me	0.864*			
	BE4. Part of me is defined by important brands in my life	0.891*			
	BE5. I feel as if I have a close personal connection with the brands I most prefer	0.902*			
Brand engagement in self-concept (Sprott <i>et al.</i> , 2009)	BE6. I can identify with important brands in my life	0.884*	0.971	0.849	0.948
	BE7. There are links between the brands that I prefer and how I view myself	0.798*			
	CC1. This brand give me a sense of confidence	0.851*			
	CC2. I'm sure about my choice of this brand	0.913*			
	CC3. I can always trust the brand keep its promises	0.852*			
	VAG1. In comparison with other similar brands, this brand is my ideal	0.863*			
	VAG2. This brand meets my expectations	0.954*			
Certainty/confidence (Batra <i>et al.</i> , 2012; Albert <i>et al.</i> , 2009, 2008)	VAC3. I feel liking this brand	0.846*	0.946	0.856	0.903
	WM1. I have recommended this brand to lots of people	0.842*			
	WM2. I 'talk up' this brand to my friends	0.929*			
	WM3. I try to spread the good-word about this brand	0.853*			
	PIN: The next time I need to buy any painkiller, I will choose Aspirina	0.927*			
	PIN2: It is very likely that in the future I will buy a product of Aspirina	0.864*			
	PIN3: I will definitely buy a product of Aspirina	0.828*			
Purchase intention (Petrevu and Lord, 1994)	BL0Y1. Aspirina are always my first choice	0.865*	0.947	0.857	0.905
	BL0Y2. If Aspirina were not available at the store, I would not buy other brands	0.806*			
	BL0Y3. I consider myself to be loyal to Aspirina	0.806*			
Brand loyalty (Yoo <i>et al.</i> , 2000)		0.835	0.938	0.835	0.890
		0.896*			
		0.896*			

**Notes:** Model A:  $\chi^2 = 1,547,259$  df = 246;  $p = 0.000$ ; CFI = 0.831; TLI = 0.811; IFI = 0.832; RMSEA = 0.129; Model B:  $\chi^2 = 1,588,911$ ; df = 246;  $p = 0.000$ ; CFI = 0.828; TLI = 0.790; IFI = 0.829; RMSEA = 0.131; \*  $p = 0.000$

convergent validity, the CFA results indicate that all relations of the items to their hypothesized factor are significant ( $p < 0.001$ ) and the standardized loadings are greater than 0.6 (Bagozzi and Yi, 1988).

5.3 Structural model and hypotheses testing

The internal consistency of the scales and the convergent validity of the measures allow the estimation of the structural models. Tables III and IV reveal that the structural models show good global fit because all GOF measures exceed their corresponding critical values. These results suggest that the proposed theoretical models provide a good representation of the set of data collected (Table IV).

For both models, we verify that the overall attitude valence is not meant to explain the love for the Aspirin brand. On the other hand, the indicators of model B are slightly lower than leading us to suspect that the scale of brand love from Carroll and Ahuvia (2006) is best fit to the data. In addition, in both models, we checked the high importance of loyalty, purchase intention e-word-of-mouth. In this sense, several authors have already proved that the consumer's attitude has a positive

**Table III.**  
Structural equation model results for model A – with Carroll and Ahuvia (2006) brand love scale

Hypotheses	Parameter	Estimation	p-value	Conclusion
Brand engagement → brand love (+)	$\gamma_{11}$	0.345	0.000	Validated <i>H1</i>
Confidence → brand love (+)	$\gamma_{12}$	0.721	0.000	Validated <i>H2</i>
Overall attitude valence → brand love (+)	$\gamma_{13}$	-0.042	0.662	Not validated <i>H3</i>
Brand love → WOM (+)	$\gamma_{14}$	0.894	0.000	Validated <i>H4</i>
Brand love → purchase intention (+)	$\gamma_{15}$	0.881	0.000	Validated <i>H5</i>
Brand love → brand loyalty (+)	$\gamma_{16}$	1.074	0.000	Validated <i>H6</i>
<i>Goodness of the adjustment</i>				
			$\chi^2$ standardized	2.876
			RMSEA	0.098
			CFI	0.897
			TLI	0.882
			IFI	0.898

**Table IV.**  
Structural equation model results for model B – with the Mohammadian and Karimpour (2014) brand love scale

Hypotheses	Parameter	Estimation	p-value	Conclusion
Brand engagement → brand love (+)	$\gamma_{11}$	0.292	0.000	Validated <i>H1</i>
Confidence → brand love (+)	$\gamma_{12}$	0.577	0.000	Validated <i>H2</i>
Overall attitude valence → brand love (+)	$\gamma_{13}$	0.056	0.493	Not validated <i>H3</i>
Brand love → WOM (+)	$\gamma_{14}$	1.174	0.000	Validated <i>H4</i>
Brand love → purchase intention (+)	$\gamma_{15}$	0.986	0.000	Validated <i>H5</i>
Brand love → brand loyalty (+)	$\gamma_{16}$	1.174	0.000	Validated <i>H6</i>
<i>Goodness of the adjustment</i>				
			$\chi^2$ standardized	3.000
			RMSEA	0.108
			CFI	0.877
			TLI	0.845
			IFI	0.878

relationship with satisfaction and loyalty (Herrera and Blanco, 2011; Inman, 2002; Lodorfos *et al.*, 2006). The results allow concluding that confidence can be the most important antecedent to explain the brand love because several studies associate the confidence on a medicine to loyalty to the product and repeat purchase (Lodorfos *et al.*, 2006; Sekhon *et al.*, 2013; Mendes, 2014). Here, the loyalty and repeat purchases are important because it is a medicine not subject to medical prescription present on the market for more than a century and purchased when needed for the treatment of non-serious diseases. This medication allows often saving time by avoiding trips to doctor's appointments.

In relation to the word-of-mouth (such as opinion leaders), it is one of the promotional channels in pharmaceutical marketing, as well as the direct-to-consumer, the physician-related promotion and the personal selling and sampling (Stros and Lee, 2015). It is argued that an actively supported distribution of positive messages via opinion leaders will improve the effectiveness of promotional actions (Stros and Lee, 2015) and, therefore, the intention to purchase and the purchase itself. "Marketers of new pharmaceuticals should also not underestimate the importance of gaining publicity and positive word-of-mouth among patients" (Jaakkola and Renko, 2007, p. 342). At the same time, other sources of information gain importance. The use of the internet is becoming increasingly popular (Goetzinger *et al.*, 2007). The internet begins to be crucial because consumers both use it to obtain objective information of pharmaceutical industry and use various vehicles of social networks to talk about their consumption and collect opinions of others.

## 6. Conclusions and limitations

The importance of establishing and maintaining a strong relationship with the consumer increases but how to do this is still a challenge, especially when the market environment is characterized by abundant competition of brands and similar products. A better understanding of how the dimensions of the relationship with the brand are interconnected can improve the ability of marketing managers to influence different aspects of the consumer relationship with the brand and help to better understand how relationships are formed and developed.

Little is known about what is the mechanism of the consumer relationship with the brand that convert a regular brand on a loved brand and, even more, what makes that feeling alive over time (Batra *et al.*, 2012; Albert and Merunka, 2013). The results demonstrate strong relationships between the two antecedents (brand engagement and confidence) and brand love and between brand love and its consequences (brand loyalty, positive word-of-mouth and brand purchase intention) in both scales. We also observed that in both models, the overall attitude valence is not meant to explain the love for the Aspirin brand. In our opinion, this can be explained by the fact that the brand Aspirin is a functional brand. On the other hand, the indicators of model B, with Mohammadian and Karimpour (2014) brand love scale, are slightly lower than leading us to suspect that the scale of brand love at Carroll and Ahuvia (2006) is best fit to the data.

These results should be analyzed with appropriate caution, given the limitations of the sample. We only use a convenience sample of Portuguese respondents. Although the sample is not fully representative of the Portuguese society, in terms of the respondents' main characteristics – gender, age, marital status and monthly income – it is consistent

with it. We consider that these drawbacks are overcome by the contribution and novelty of this study.

In future research, this exploratory study could be replicated by comparing the opinions of representative samples of society (people in general), health professionals and patients. It would also be interesting to replicate this essay in other countries, in order to explore cultural differences and eventually trace patterns of Aspirin brand love.

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