

FUNDAÇÃO GETULIO VARGAS
ESCOLA DE ADMINISTRAÇÃO DE EMPRESAS DE SÃO PAULO

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CONSUMER ENGAGEMENT ON SOCIAL MEDIA:
Analysis of scales and its multiple role in a nomological network

SÃO PAULO

2017

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Campo do conhecimento: Administração
Mercadológica

Orientador: Prof. Dr. Felipe Zambaldi

SÃO PAULO

2017

Ferreira, Mateus.

Consumer engagement on social media : analysis of scales and its multiple role in a nomological network / Mateus Ferreira. - 2017.
151 f.

Orientador: Felipe Zambaldi

Tese (doutorado) - Escola de Administração de Empresas de São Paulo.

1. Mídia social. 2. Comportamento do consumidor. 3. Consumo (Economia). I. Zambaldi, Felipe. II. Tese (doutorado) - Escola de Administração de Empresas de São Paulo. III. Título.

CDU 658.89

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Data de aprovação:

27/06/2017

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Dedico este trabalho à minha esposa, Ellen Sampaio Cordeiro, pelo amor e dedicação, ao nosso recém-chegado filho, Bernardo Cordeiro Ferreira, e aos meus pais, Maria Aldair Ferreira e Luiz Airton Wesz Ferreira, pelo apoio e referência de dedicação ao trabalho.

AGRADECIMENTOS

Meu agradecimento especial ao professor Felipe Zambaldi, orientador e amigo que nestes 6 anos de mestrado e doutorado é fonte de inspiração e referência. Sempre me instigando a ir além do que eu imaginava ser capaz, sua confiança me motivou e tornou esta tese possível.

Agradeço aos professores que aceitaram participar da minha banca de defesa, Eliane Pereira Zamith Brito, Francisco José da Costa e José Afonso Mazzon, e aos demais professores do departamento, Delane Botelho, Juracy Gomes Parente e Tania Modesto Veludo de Oliveira.

Agradeço ainda aos meus colegas da FGV, Adriana, André, Benjamin, Bruno, Caê, Carla, Carol, Cristiano, Gustavo, Josélia, Ricardo, Victor e Viviane, especialmente aos amigos do Apt138, Alexandre, Bruno, Diego, Elias, Emílio, Fernando, Jannsen, Juliano, Júnior, Márcio, Rodolfo e Thales. Meu muitíssimo obrigado à Farah Diba Braga, e sincero agradecimento à Ramona De Luca, amiga incondicional e excelente parceira de pesquisa, cujo companheirismo e dedicação tornou o doutorado mais fácil.

Agradeço à minha esposa, Ellen Sampaio Cordeiro, que apesar da distância sempre me apoiou e esteve incondicionalmente ao meu lado, aos meus pais, Alda e Luiz, que me incentivaram nestes 29 anos de vida e estudo, e aos demais familiares e amigos, que me acompanharam e me auxiliaram de diferentes formas e durante diferentes períodos.

Agradeço também à Coordenação de Aperfeiçoamento de Pessoal de Nível Superior (CAPES), pelo fomento durante meu curso de doutorado, e a Vidi Shopper, pelo fornecimento da base de dados para realização desta tese.

RESUMO

Pesquisas acadêmicas sugerem que as mídias sociais podem melhorar a sua reputação corporativa, vendas, retorno sobre o investimento, boca-a-boca positivo e criar valor para os consumidores. Desempenhando o papel central neste processo relacional, o engajamento do consumidor ou cliente (usados como sinônimos neste contexto), emergiu como um dos principais construtos que explicam o sucesso ou fracasso de marcas nas mídias sociais. Considerando o engajamento como um construto multidimensional composto por dimensões cognitiva, afetiva e comportamental que varia de acordo com o sujeito (ex. consumidor ou empregado), objeto focal (ex. marca, produto ou propaganda) e contexto (ex. varejo ou online), nesta tese nós fazemos um corte mais específico do campo e para discutir o engajamento do consumidor (sujeito) com marcas (objeto no Artigo 2 e 3) ou com a comunidade de marca (objeto no Artigo 1) em mídias sociais (contexto). Como objetivo geral da tese, nós analisamos o engajamento do consumidor em diferentes redes nomológicas, priorizando seus antecedentes e papel mediador (Artigo 1), ou consequentes e sua relação com outra medida de engajamento (Artigo 3), além de realizar uma análise comparativa de diferentes escalas desenvolvidas para medi-lo (Artigo 2). No Artigo 1, nós mostramos que a escala de engajamento do consumidor da Vivek, Beatty, Dalela e Morgan (2014), originalmente desenvolvida para aplicação em múltiplos contextos, também pode ser aplicado a múltiplos objetos. Nós validamos esta escala em uma rede nomológica com homofilia percebida e envolvimento com marca como antecedentes e reputação corporativa como consequente. Nossos resultados mostram que além de ter efeito positivo direto na reputação corporativa, o engajamento do consumidor tem um forte papel mediador. No Artigo 2, o nosso objetivo é comparar algumas das principais escalas desenvolvidas para medir o engajamento do consumidor: Dessart, Veloutsou e Morgan-Thomas (2016), Hollebeek, Glynn e Brodie (2014) e Vivek et al. (2014). Para fazer isso, nós propomos um procedimento para análise comparativa de escalas que envolve i) a seleção, ii) padronização e iii) análise das medidas. Nós replicamos três escalas selecionadas com um mesmo objeto (marca) e contexto (social media), considerando que a maioria das escalas desenvolvidas foram aplicadas para este mesmo objeto e contexto. Baseado nas análises da Teoria Clássica dos Testes (TCT) e na Teoria de Resposta ao Item (TRI), nossos resultados mostram similaridades, diferenças e vantagens da aplicação de cada escala. No Artigo 3 nós analisamos conjuntamente duas correntes de estudo do engajamento do consumidor ao considerar engajamento com marca no autoconceito (BESC) como uma medida de engajamento com marcas em geral (Spratt,

Czellar, & Spangenberg, 2009) e engajamento do consumidor com uma marca específica (Vivek et al., 2014), e como o último impacta no valor percebido dos consumidores e na reputação corporativa. Por meio da análise multigrupo com amostragens realizadas no Brasil e Estados Unidos, nossos resultados mostraram que além de excelente ajuste, tanto no nível do modelo como no nível de caminho não houve diferença entre os grupos, o que indica a invariância intercultural dos grupos no modelo estrutural. Por fim, no Capítulo 5 nós sintetizamos as conclusões da dissertação.

Palavras-chave: Engajamento do consumidor, Engajamento com Marca, Engajamento com Comunidade de Marca, Mídias Sociais, Comparação de Escalas.

ABSTRACT

Academic research has suggested that social media can improve corporate reputation, sales, return on investment, positive word-of-mouth and create value for consumers. Playing the central role in this relational process, consumer or customer engagement (used interchangeably in this context), emerged as one of the main constructs explaining the success and failure of brands on social media. Considering engagement as a multidimensional construct composed of cognitive, emotional and behavioral dimensions that varies according to the subject (e.g., customer or employee), focal object (e.g., brand, product or advertising), and context (e.g., retail or online), in this dissertation we make a specific field cutting in order to discuss consumer engagement (subject) with brands (object in Article 2 and 3) or brand communities (object in Article 1) on social media (context). As a general aim of the dissertation, we analyze consumer engagement in different nomological networks, prioritizing its antecedents and mediating role (Article 1) or consequences and its relationship with another measure of engagement (Article 3), in addition to perform a comparative analysis of different scales developed to measure it (Article 2). In the Article 1, we show that the Vivek, Beatty, Dalela, and Morgan (2014) consumer engagement scale, originally developed for application in multiple contexts, can also be applied to multiple objects. We validate this scale in a nomological network with perceived homophily and brand involvement as antecedents and corporate reputation as consequence. Our results show that besides having a direct positive effect on corporate reputation, consumer engagement has a strong mediating role. In the Article 2, our goal is to compare some of the main scales developed to measure consumer engagement: Dessart, Veloutsou, and Morgan-Thomas (2016), Hollebeek, Glynn, and Brodie (2014) and Vivek et al. (2014). To do this, we propose a procedure for the comparative analysis of scales that involves i) the selection, ii) standardization and iii) analysis of measures. We replicate three selected scales with the same object (brand) and context (social media), considering that most of the developed scales were applied to the same object and context. Based on the Classical Test Theory (CTT) and Item Response Theory (IRT) analysis, our results show similarities, differences, and advantages of applying each scale. In Article 3 we jointly analyze two streams of consumer engagement studies by considering brand engagement in self-concept (BESC) as a measure of engagement with brands in general (Sprott, Czellar, & Spangenberg, 2009) and consumer engagement with a specific brand Vivek et al., 2014), and how the latter impacts the perceived value of consumers and corporate reputation. By means of the multigroup analysis with samplings carried out in

Brazil and the United States, our results showed that in addition to excellent adjustment, both at the model level and at the path level there was no difference between the groups, which indicates the cross-cultural invariance in the structural model. Finally, in Chapter 5 we synthesize the conclusions of the dissertation.

Keywords: Consumer Engagement, Brand Engagement, Brand Community Engagement, Social Media, Comparison of Scales.

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1. CHAPTER 1 – DISSERTATION INTRODUCTION

DISSERTATION INTRODUCTION

Virtual social media became a major tool of interaction and dissemination of goods and services between consumers and businesses (Mangold & Smith, 2012). As a result, companies and researchers seek to measure the success of social media marketing efforts and create an optimized strategy. Academic research has also suggested that by creating brand page on social media, brands can improve their corporate reputation (Dijkmans, Kerkhof, & Beukeboom, 2015), increase sales, return on investment and positive word-of-mouth (Kumar, Bhaskaran, Mirchandani, & Shah, 2013), and create value for consumers (Wirtz et al., 2013).

Playing the central role in this relational process (Brodie, Ilić, Jurić, & Hollebeek, 2013), consumer or customer engagement (used interchangeably in this context) has emerged as one of the main constructs that explain the success and failure of brands on social media. Although a relatively new concept, there is a consensus that consumer engagement is a consumer's positive level of cognitive, emotional and behavioral investment with a focal object (Hollebeek, 2011b; Brodie, Hollebeek, Jurić, & Ilić 2011; Hollebeek, Glynn, & Brodie, 2014), in specific direct (Hollebeek, 2011a) or indirect interactions (Mollen & Wilson, 2010).

For most academics, the engagement is a construct that varies according to the subject (e.g., customer, employee, student), focal object (e.g., brand, product, advertising), and context (e.g., online, off-line) (Brodie et al., 2011; Brodie et al., 2013; Hollebeek, 2011a, Vivek, Beatty, Dalela, and Morgan, 2014). In this dissertation, we make a specific field cutting and discuss consumer engagement (subject) with brand (object in Article 2 and 3) or with brand community (object in Article 1) on social media (context). Composed of three distinct but related articles, we separate articles by chapters with a limited length according to the guidelines of the journals. Although this model facilitates the publication, it may have some redundancy between the articles when we discuss the concept and measurement of consumer engagement with the same subject, object, and context.

As a general aim of the dissertation, we intend to analyze consumer engagement in different nomological networks (Article 1 and 3) and perform a comparative analysis of different scales developed to measure it (Article 2).

More specifically, in the Article 1 (Chapter 2), our aim is to replicate the Vivek et al. (2014) validated scale of brand engagement to measure the consumer engagement with brand community in a nomological network with other relational concepts.

Other studies have also examined the nomological validity of engagement with other relational concepts (e.g., Dessart, Veloutsou, & Thomas-Morgan, 2016; So, King, & Sparks, 2014), but no previous studies have examined jointly the relational antecedents by using factors related to brand (customer brand involvement) and other consumers (perceived homophily with other members) and their impact on corporate reputation.

The literature of homophily suggests that individuals can perceive homophily with groups and organizations (McPherson, Smith-Lovin, & Cook, 2001) through the personification of the brand or your brand community (Brown, Broderick, & Lee, 2007), while other research have shown that brand involvement (Brodie et al., 2011; Brodie et al., 2013; Hollebeek 2011a; 2011b; Hollebeek et al., 2014; Vivek, Beatty, & Morgan, 2012; Vivek et al., 2014) has a positive association with consumer engagement.

In this theoretical model, we also included corporate reputation as a consumer engagement consequence (Dijkmans et al., 2015; Li, Berens, & Maertelaere, 2013) to verify the benefit of this engagement for the brand. Therefore, in Article 1 we verified the impact of perceived homophily and brand involvement antecedents on consumer engagement with brand community, and their impact on corporate reputation.

As our results showed that in addition to the high association between consumer engagement and corporate reputation, engagement also fully mediates the relationship between perceived homophily and brand involvement with corporate reputation, we also contribute to the theory by showing the central role of consumer engagement in the context of social media.

Although there are validated scales to measure consumer engagement (subject) with brand community (object) (Algesheimer, Dholakia, & Herrmann, 2005; Baldus, Voorhees, &

Calantone, 2015; Dessart et al., 2016), we opted to use Vivek et al. (2014) brand engagement scale. It was originally developed for application in various contexts (such as social media, see Aragão, 2016) and to measure the engagement with brands (a specific object). As a methodological contribution, we used it to measure engagement with the brand page (another object) showing that in addition to working in multiple contexts, this scale could be adapted to measure engagement with multiple objects.

Doing this, while the engagement literature suggests that its definition and measurement vary according to the subject, object and context in which it is used, we argue that the existence of validated scales with multiple contexts or objects indicates that keeping the subject constant (e.g., consumer) there can be a more comprehensive definition and more flexible scale that reduce the trend of fragmentation of the area. We also confirmed the reliability and validity of the scale and showed a good fit of the construct.

In the Article 2 (Chapter 3), we show that the engagement definition as a construct that varies according to the subject, focal object, and context, has been used to justify the coexistence of various definitions and scales. However, several scales of consumer engagement (subject) with similar object and context have been launched, when could be adopted an already validated scale. Also, there are engagement scales that have been validated to be applied to multiple contexts (Vivek et al., 2014) and objects (Dessart et al., 2016), making hard for researchers to define the main criterion for choosing the appropriate scale.

So, our argument is that maintaining the subject (customer) constant, a single scale can be used to measure the engagement with different objects and contexts. With the aim to compare some of the main scales developed for consumer engagement, in this article we also define a procedure for i) selection, ii) standardization and iii) comparative analysis of these measures. Through this, we select the Dessart et al. (2016), Hollebeek et al. (2014) and Vivek et al. (2014) scales, and replicate these measures in relation to brands (object) in social media (context) considering that most scales were applied to the same object and/or context. To analyze the selected measures, in addition to the model fit indices, reliability and validity of the scales provided by the Classical Test Theory (CTT), we also consider the discrimination, difficulty, and information provided by the items and dimensions by Item Response Theory (IRT).

Our results showed that scales have similarities and differences concerning the CTT and IRT. On the one hand, while one scale has greater reliability and convergent validity, others are characterized by the discriminating between constructs or by possessing items with greater capacity to discriminate individuals with different traits (levels of engagement). On the other hand, both scales showed to be more efficient in discriminating individuals with an average trait, not having the same efficiency for weakly and strongly engaged individuals.

In addition to the methodological contribution of establishing a process of comparison of measures, our results provide a range of options for social media brand managers by validating three measures in this context. In analyzing the selected measures, we show practitioners the specific advantages of each one of the tested scales, making it easier to choose the one that best suits its purpose. Theoretically, we also offer a complement to the study of Brodie et al. (2011), who sought to give a more general definition to engage consumers without indicating an instrument to measure it with various objects and contexts.

If in Article 1 we gave more attention to analyzing antecedents and the mediating role of consumer engagement, considering the results of scales comparison on Article 2, in Article 3 (Chapter 4) we finally analyze especially its consequences, considering aspects that benefit the consumers (perceive value) and companies (corporate reputation).

In this article, we jointly analyze two streams of study of consumer engagement by considering brand engagement in self-concept (BESC) as a measure of engagement with brands in general (Sprott, Czellar, & Spangenberg, 2009) and consumer engagement with a specific brand (Vivek et al., 2014). According to the literature (Goldsmith & Goldsmith, 2012), these are distinct and positively correlated constructs, and we propose that BESC, a generalized tendency to engage with brands in general, is an antecedent that increases consumer engagement with a specific brand.

To validate this nomological network, we conducted a study in Brazil and the United States and used multigroup analysis to check the cross-cultural group invariance of the structural model. Our results showed that in addition to excellent adjustment, both in the model level and in the path level there was no difference between the groups, which indicates the cross-cultural nomological validity of the structural model.

As a contribution, our results also showed that consumer engagement with a specific brand has a strong impact on the perceived value, in which the engaged consumer considers their interaction with a brand in social media as a positive experience. In the same way, we confirmed that consumers engaged with brand on Facebook generate benefits for companies by improving their corporate reputation among consumers.

Finally, on Chapter 5 we synthesized the conclusions of the dissertation. More specifically, we report the findings of the three articles and show how they are related and contribute to the theory, as well as methodological and managerial implications of consumer engagement in social media.

2. CHAPTER 2 – ARTICLE 1

ARTICLE 1

THE MEDIATING ROLE OF CONSUMER ENGAGEMENT WITH THE BRAND COMMUNITY AND ITS EFFECT ON CORPORATE REPUTATION

Abstract

Considering the central role of consumer engagement in social media, our objective in this article is to test the proposed theoretical model to check the impact of perceived homophily and brand involvement on the consumer engagement with brand community, and the effect the latter on corporate reputation. Our results showed that in addition to the high association between consumer engagement and corporate reputation, engagement also fully mediates the relationship between perceived homophily and brand involvement with corporate reputation. While the engagement literature suggests that its definition and measurement vary according to the subject, object, and context in which it is used, we argue that the existence of replicated scales in multiple contexts or with multiple objects indicates that keeping the subject constant (e.g., consumer) there can be a more comprehensive definition and more flexible scale that reduce the trend of fragmentation of the area. In this way, we propose that the consumer engagement scale of Vivek, Beatty, Dalela, and Morgan (2014) assumes this role. Because the scale has been validated in different contexts, we now adapt it to measure engagement with a different object. We confirmed the reliability and validity of the scale and show a good fit of the construct when measuring consumer engagement with the brand community.

Keywords: consumer engagement, brand community, corporate reputation, perceived homophily, brand involvement.

2.1. Introduction

In the past decade, the number of people connected to the internet has consistently grown, from

2.87% in 2000 to 40.65% of the population in 2010 (World Bank, 2015). According to Deloitte's (2015) report, new technologies such as social media not only affect sales in digital channels, but also have a much broader impact on in-store sales and in-store consumer behavior. The report addresses that Hispanic and Latin American (and the Millennial age group - between 18 and 34 years old) correspond to the groups that most often use social media to gather inspiration or shop, being more influenced and spend more (Deloitte, 2015).

Academic research has also suggested that creating brand community or page on social media improves the corporate reputation (Dijkmans, Kerkhof, & Beukeboom, 2015), increases sales, returns on investment, positive word-of-mouth (Kumar, Bhaskaran, Mirchandani, & Shah, 2013) and was associated with brand equity (Aaker, 1996), leading most of the Fortune Global 100's companies (87%) to be active on at least one social media (Burson-Marsteller, 2012). In such a context, Brazilian companies also have created communities, called fan pages on Facebook, for their brands to promote closer relationships with consumers. These fan pages are spaces on social networks where "businesses, organizations and brands share their stories and connect with people" (Facebook, 2017), and aim to broadcast great information in an official, public manner, to people who choose to connect with them (Zaglia, 2012).

As a result of the interest of companies and researchers, the term engagement (Mollen & Wilson (2010) is frequently used to represent the relationships between brands/companies and consumers in social media, playing a "central role in the process of relational exchange, where other relational concepts (e.g., participation, involvement) act as engagement antecedents and/or consequences in dynamic engagement processes occurring within the brand community" (Brodie, Ilić, Jurić, & Hollebeek, 2013, p. 107).

Previous studies have investigated consumer engagement in a nomological network with other relational concepts. For example, Vivek, Beatty, Dalela, and Morgan (2014) developed a scale for consumer engagement and tested its relationship with other four relational outcomes: "value perceptions, benevolence perceptions (i.e. a dimension of trust), future patronage intent (i.e. a behavioral loyalty concept), and affective commitment toward the organization" (p. 412). In the context of social media, Hollebeek, Glynn, and Brodie (2014) also developed a scale and tested brand engagement with social media and three other relational concepts: consumer brand involvement as antecedent; and self-brand connection and brand usage intent as consequences.

Although other studies have also examined the nomological validity of community engagement with other relational concepts (e.g., Dessart, Veloutsou, & Thomas-Morgan, 2016; So, King, & Sparks, 2014), we did not find studies that examined jointly relational antecedents by using drivers related to brand and other members of the brand community. Our literature review indicated that brand and followers of the brand community (Baldus, Voorhees, & Calantone, 2015) are vectors of interaction between brand and consumers in social media (Dessart et al., 2016). Thus, we consider consumer brand involvement (related to brand) and perceived homophily with other members (related to other members) as community engagement antecedents in social media.

Literature indicates that homophily (Alkhateeb, Moussa, & Alli, 2012; Tukachinsky & Tokunaga, 2013), and involvement (Brodie et al., 2013; Hollebeek et al., 2014; Leckie, Nyadzayo, & Johnson, 2016; Li, Berens, & Maertelaere, 2013; Mollen & Wilson, 2010; Vivek, Beatty, & Morgan, 2012) may have impacts on consumer engagement, which in turn can also lead to a better corporate reputation (Dijkmans et al., 2015; Li et al., 2013).

Considering the inter-relations of these concepts, this work aims to test the proposed theoretical framework to check the impact of perceived homophily and brand involvement on the community engagement, and its impact on corporate reputation. Considering the central role of engagement, we also propose that the relationship between perceived homophily and brand involvement with corporate reputation is mediated by community engagement.

As a theoretical contribution, we tested this theoretical model that considers different community engagement drivers. While other studies have found that communication channel, company and consumer aspects as drivers of engagement (Li et al., 2013), we showed that brand (brand involvement) and other community members (perceived homophily) aspects are also important predictors of community engagement.

While the literature suggests that consumer (specific subject) engagement is a construct that varies according to the object and context in which it is analyzed, we also advanced methodologically by adapting the Vivek et al. (2014) brand engagement scale to measure the community engagement. Originally developed for application in various contexts and to measure the engagement with brands (a specific object), this scale is here applied and validated in the social media (another context) with brand community (another object).

We suggested that in addition to multiple contexts, this scale could be adapted to measure engagement with other objects, such as the brand community. With this, we approach the literature of brand and community engagement, while offering a shorter multidimensional instrument to measure community engagement, facilitating its validation in a nomological network, since most of the scales have between 6 and 11 dimensions.

As a managerial contribution, although brand-related aspects have greater potential than perceived homophily to improve brand community engagement, we found that managers should attract followers with similar characteristics. This suggests that just as products are developed for a specific audience, companies and managers should create brand communities thinking about a specific audience rather than focusing on the number of followers and eventually reducing perceived homophily.

We found that community engagement has a doubly important role for companies, because besides we verify a strong positive association with corporate reputation, it is also a full mediator of the relationship between perceived homophily and brand involvement with corporate reputation. Considering that reputation positively influences the profitability of companies (Fombrun, 2001), these results provide important managerial contributions.

In the following sections, we present a literature review of the concepts and formulate hypotheses to investigate the relations among constructs. Next, we describe the data collection and analysis procedure, followed by the presentation and discussion of our results, as well as conclusions and suggestions for future research.

2.2. Literature review

The brand management becomes even more complex with the emergence of social media and review sites. Corporate reputation, a valuable asset for companies, for example, is more difficult to control (Dijkmans et al., 2015) in the era in which consumers have changed their way of seeking information.

In the scenario in which consumers are trusting more on online reviews from consumers than

traditional media (Nielsen, 2012), it is increasingly important that companies develop brand communities or pages to interact with people online, creating shareable content, addressing negative content found online, and following up on ideas that are shared through social media (Dijkmans et al., 2015).

Who first defined these brand community (BC) in marketing were Muniz & O'Guinn (2001), as "a specialized, non-geographically bound community, based on a structured set of social relationships among admirers of a brand" (p. 412). From this sociological perspective, Muniz and O'Guinn (2001) found three traditional markers of these communities: i) shared consciousness, an intrinsic connection that members feel toward one another, and the collective sense of difference from others not in the community; ii) rituals and traditions, that perpetuate the community's shared history, culture, and consciousness; and iii) a sense of moral responsibility, which is a felt sense of duty or obligation to the community as a whole, and to its individual members.

However, more suitable for this research and adopting a value perspective that considers both interests of consumers and companies, Wirtz et al. (2013) defined BCs "as the network of relations between providers and brand consumers who attach to certain value to engaging in a relationship with both the provider and with the brand's other consumers" (p. 224).

Wirtz et al. (2013) also identified four key dimensions that significantly shape a BC: i) brand orientation, that can be the brand itself, a wider shared interest, or both; ii) internet-use: offline, online or both; iii) funding, that can range from being funded by the brand, to being fully funded by the community of enthusiasts; and iv) governance, that can be governed entirely by the brand or entirely by the BC at the other.

Considering this categorization, this study analyzes the online brand communities that are oriented both to the brand itself and to a wider shared interest, and which in general are more funded and governed by the brand.

According to Algesheimer, Borle, Dholakia, and Singh (2010), the positive experiences of interactions in these communities may strengthen the relationship of consumers with the brand. About this brand-consumer interaction, Fournier (1998) suggests that brand may be one of a legitimate partner, an active object that contributes to a dyad. This definition is legitimated by

the understanding that a brand can be animated, humanized, or somehow, personalized. A brand may act as a 'close friend' and interacts with consumers by means of personification, thus behaving as an active member in a relationship (Fournier, 1998). As well as consumers may attribute traits of human personality to brands (Aaker, 1997), Brown, Broderick, and Lee (2007) argue that online social networks themselves (e.g., brand fan pages) can also act as primary actors and serve as a proxy for individual identification who follow them.

These studies recognize many actors in these pages that contribute to attract followers, such as the manager of these pages (e.g., blogger or brand manager) and other members / followers of these communities (Brown et al., 2007; Zanette, 2012). For example, consumers can engage with brand community, other followers and/or social media itself (Baldus et al., 2015).

Although there are different vectors of engagement in social media, the literature of online brand community indicates that brand and the community are the most relevant focus (Brodie et al., 2013; Dessart, Veloutsou, & Thomas-Morgan, 2015; 2016). Here we analyze consumer engagement with brand community itself, in addition to discuss different drivers and how this improves corporate reputation. Next, we discuss concepts and present our hypotheses and theoretical framework.

2.2.1. Corporate reputation

Corporate reputation is a concept studied by several fields, such as economics, psychology, sociology, management, organizational theory and marketing (Fombrun, 1996). This multidisciplinary creates confusion even for academics who define and operationalize this construct. For example, in management, reputation can be understood as either a resource, transaction cost or social status research (Bergh, Ketchen, Boyd, & Bergh, 2010).

While for economists the reputation is related to price and product quality (Nguyen & Leblanc, 2001), in the strategy literature it is considered an intangible asset that may contribute to a competitive advantage (Walsh & Beatty, 2007) and, thus, can be managed. In management, corporate reputation was initially studied among those who have ties to the firm (Nguyen & Leblanc, 2001), representing “a snapshot that reconciles images of a company held by all its constituencies” (Fombrun, 1996, p. 72).

Although there are several definitions, it is a consensus that corporate reputation is a valuable and intangible asset that influences consumer buying decisions (Ponzi, Fombrun, & Gardberg, 2011), results from past company actions (Nguyen & Leblanc, 2001), and is a collective phenomenon and includes direct and indirect interaction experiences (Walsh & Beatty, 2007).

In marketing literature, Walsh and Beatty (2007) conceptualize it as an attitude-like evaluative judgment of firms. This judgment involves two key points: i) attributes (Herbig & Milewicz, 1993) and ii) stakeholders (Wartick, 1992). A firm can have several reputations related to each attribute such as product, price or quality, as well as a global reputation. In the same way, the evaluation of a company can be done by different stakeholders, such as clients, employees or suppliers (Nguyen & Leblanc, 2001).

While recognizing that corporate reputation is formed by the assessment of different stakeholders, the importance of clients has stood out from the others (Walsh & Beatty, 2007), evidenced in the number of studies that access reputation only through this group. Walsh and Beatty (2007), for example, developed a scale to measure customer-based corporate reputation.

There is also no consensus on the measurement of corporate reputation, with studies validating one-dimensional (e.g., Li et al., 2013; Nguyen & Leblanc, 2001; Ponzi et al., 2011) and multidimensional scales (e.g., Fombrun, Gardberg, & Sever, 2000; Walsh & Beatty, 2007; Walsh, Beatty, & Shiu, 2009). Although one-dimensional scales represent a simplification of the construct, items such as ‘company has a good overall reputation’ or ‘reputation of company is better than other companies’ have presented satisfactory results and are indicated for nomological validations, as in our research.

2.2.2. *Community engagement*

In the virtual environment research, the study of consumer engagement has gained strength over other relational concepts. Customer (Bowden, 2009; Brodie, Hollebeek, Jurić, & Ilić, 2011) and consumer engagement (Brodie et al., 2013) are interchangeable terms and a recent term in the relationship marketing literature (Hollebeek, 2011a), especially in the context of virtual communities or brand fan pages, replacing concepts such as involvement and participation (Brodie et al., 2011). Consumer engagement differs from involvement and participation because it has an interactive focus on experiences with an object and occurs within an

interactive process that co-creates value (Brodie et al., 2011).

Although being a recent and under construction concept (Brodie et al., 2013), consumer engagement has many definitions (Brodie et al., 2011; Hollebeek et al., 2014). In marketing, Algesheimer, Dholakia, and Herrmann (2005) defined brand community engagement as a positive force for user identification with brand community through the consumer's intrinsic motivation to interact/co-operate with community members, measuring it through emotional, social and utilitarian aspects. More recently, Mollen and Wilson (2010) considered cognitive and affective aspects as part of online engagement, defined "as a cognitive and affective commitment to an active relationship with the brand" (as personified by the website) (p. 12), while van Doorn et al. (2010) defined customer engagement behaviors "as the customers' behavioral manifestation toward a brand or firm, beyond purchase, resulting from motivational drivers" (p. 254).

One of the first to aggregate these different cognitive, emotional and behavioral elements, Hollebeek (2011a) defined customer brand engagement as "the level of an individual customer's motivational, brand-related and context-dependent state of mind characterized by specific levels of cognitive, emotional and behavioral activity in direct brand interactions" (p. 790). Accordingly, consumer engagement definition of Vivek et al. (2014), was adopted as the most appropriate for this research, "goes beyond the purchase and is the level of the customer's (or potential customer's) interactions and connections with the brand or firm's offerings or activities, often involving others in the social network created around the brand/offering/activity" (p. 406). By its breadth, this definition also applies to the context of brand communities, having already been applied in the context of social media (Aragão, 2016).

As engagement is also related to a particular object, such as brand, product or organization, in a specific context, such as retail or brand community (Vivek et al., 2014; Dessart et al., 2016), there are several scales to measure engagement as both, one-dimensional (Algesheimer et al., 2005; Sprott, Czellar, & Spangenberg, 2009) or multidimensional construct (Baldus et al., 2015; Calder, Malthouse, & Schaedel, 2009; Hollebeek et al., 2014; Vivek et al., 2014).

Among those who used multidimensional scales, there is a big difference in the used constructs: cognitive processing, affection and activation (Hollebeek et al., 2014); conscious attention, enthused participation and social connection (Vivek et al., 2014); familiarity and following

activities (Dijkmans et al., 2015), or others. Despite differences, most multidimensional (and one-dimensional) scales include aspects of cognitive, emotional and/or behavioral engagement (Dessart et al., 2016; Hollebeek et al., 2014; Vivek et al., 2014). For example, Dessart et al. (2016) used seven dimensions: enthusiasm and enjoyment, as emotional dimensions; attention and absorption, as cognitive dimensions; and sharing, learning and endorsing as behavioral dimensions; Hollebeek et al. (2014) used three dimensions: cognitive processing (cognitive), affection (emotional), and activation (behavioral); and finally, Vivek et al. (2014) also used three dimensions: conscious attention (cognitive), enthused participation (behavioral and emotional) and social connection.

Among these scales, Vivek et al. (2014) developed a scale for multiple contexts and Dessart et al. (2016) for multiple objects. Although the scale of Dessart et al. (2016) has been developed to be applied to the social media context and to analyze engagement with brand or brand community (objects), it contains seven dimensions and 22 items, making it difficult to use in a wide nomological network.

With ten items, three dimensions and validated in the context of product brand and retail context, the scale of Vivek et al. (2014) is one of the most used, and it has been replicated in several contexts. As suggested by the authors, this scale was also validated in the context of social media (see Aragão, 2016), but the focal object of engagement has remained constant when analyzing engagement with brand or product brand.

Here, we propose that in addition to being suitable for several contexts, the scale of Vivek et al. (2014) can be used with multiple objects, such as brand community. In addition to proposing a wide use of scale, its validation with other objects facilitates the nomological validation of consumer engagement as a multidimensional construct, especially since the scales for measuring engagement with the brand community have 7 (e.g., Dessart et al., 2016) or 11 dimensions (e.g., Baldus et al., 2015). Thus, we chose to replicate the scale of Vivek et al. (2014) to measure brand community engagement.

2.2.3. Customer brand involvement

The literature suggests that a person can be involved with different objects, such as advertisements, products or purchase decisions, which lead to different responses

(Zaichkowsky, 1985). Moreover, involvement has been measured in marketing studies with different instruments, thus far (Mittal, 1995).

Usually, involvement is defined as the perceived personal relevance or importance of a product or brand (Coulter, Price, & Feick 2003; Mittal, 1995; Zaichkowsky 1985; 1994), related but different of consumer engagement, in the way that involvement is a more passive allocation of mental resources (Mollen & Wilson, 2010).

In the brand-consumer relationship literature, consumer brand involvement has gained wide attention as one of the key concepts to explain the personal level of interest and relevance attributed to a brand (Hollebeek et al., 2014). Much of the articles, theoretical or empirical, indicated brand involvement as one of the main antecedents of consumer engagement (e.g., Brodie et al., 2011; Brodie et al., 2013; Hollebeek 2011a; 2011b; Hollebeek et al., 2014; Vivek et al., 2012; 2014), while brand community involvement is a consequence (Vivek et al., 2012; 2014).

The four main scales of involvement used in the marketing area were evaluated in a comparative analysis by Mittal (1995). Among these, the most often cited and replicated was elaborated by Zaichkowsky (1985), the personal involvement inventory scale, revised and reduced from 20 to 10 items most recently (Zaichkowsky, 1994). As previous research related this scale to consumer engagement on social medias (e.g., Hollebeek et al., 2014), we also used the customer brand involvement scale of Zaichkowsky (1994).

2.2.4. Perceived homophily

The first studies on homophily date from the 1920s and focus on small groups, analyzing how demographic characteristics (such as age, gender, ethnicity and education) and psychological characteristics (such as intelligence, attitudes and aspirations) influence the association among similar people (McPherson, Smith-Lovin, & Cook, 2001).

According to McPherson et al. (2001), homophily refers to the degree to which interacting individuals are similar to each other in relation to attributes such as beliefs, values, education and social status, demographic factors and behaviors. Homophily holds the principle that interaction with similar people occur more frequently than with different people (McPherson et

al., 2001). Brown and Reingen (1987) consider it as a fundamental principle of human interaction, since people tend to interact with those who are like them. The similarity of attributes can occur between people, organizations or entities on a network. Although studies have focused more on sociodemographic characteristics, psychology literature points out that homophily affects attraction and that cognitive processes make communication between similar actors to be more likely (Huston & Levinger, 1978; McPherson et al., 2001).

McCroskey, Richmond, and Daly (1975) developed a scale to measure the perceived homophily. Although the scale has two dimensions, attitude and background, the background dimension loses sense in the context of social media (Chu & Kim, 2011). Chu and Kim (2011), for example, measured only the attitudinal dimension to represent the perceived homophily.

2.3. Theoretical framework and hypotheses

2.3.1. Relation between perceived homophily and brand involvement

Wheless (1974), in an article in the area of communication, found that receivers who selectively seek (versus reject exposure to) information have significantly more positive attitudes toward the sources. In this case, both involvement and perceived homophily with the source predicted selection-rejection information. The greater perceived homophily and involvement with the source, the greater the willingness to seek information.

Knoke (1990) also related homophily and involvement in the political context and found that homophily of political behavior and practice predicts more behavioral involvement, especially in voluntary associations (McPherson et al., 2001). More recently, Burgoon, Stoner, Bonito, & Dunbar (2003) also studied interaction involvement and perceived homophily by comparing different communication modalities (text, audio, audiovisual and face-to-face).

These studies suggest the existence of a relationship between these two constructs, and although it has no strong theoretical support, we propose that in brand communities these constructs are correlated. For example, the high degree of involvement with the brand may be perceived as an element of homophily between community members, which leads us to propose that:

H1: Perceived homophily with other members is correlated with brand involvement in brand communities.

2.3.2. Relation between perceived homophily and consumer engagement

There are little studies about homophily and consumer engagement in social media context, but Tukachinsky and Tokunaga (2013) found that homophily with characters may result in higher involvement or engagement with entertainment media.

A similar result was found in the context of exchange of ideas, opinions, and information, in which Alkhateeb et al. (2012) verified that homophily also determines consumer engagement in viral marketing. Considering the existence of empirical support, we expect that homophily in social media influences consumer engagement.

H2: Perceived homophily is positively associated with consumer engagement with brand community.

2.3.3. Relation between brand involvement and consumer engagement

The relationship between involvement and engagement has great theoretical and empirical support. Most of the theoretical or qualitative researches that discussed the definition of engagement indicated that it is different but closely related to the involvement, in which many authors consider involvement as antecedent of the engagement (Brodie et al., 2011; Brodie et al., 2013; Hollebeek 2011a; 2011b; Hollebeek et al., 2014; Vivek et al., 2012; 2014).

Among the studies that have empirically tested the engagement and involvement, Li et al. (2013) found no direct significant relationship, but verified a significant positive three-way interaction effect: such that i) company involvement in the channel is high; ii) the corporate Twitter channel has a specific purpose (versus generic purpose); and iii) the corporate Twitter channel has a high degree of depth, the degree of engagement with the community is increased.

However, Hollebeek et al. (2014) confirmed the three hypotheses drawn to the relationship between consumer engagement dimensions and involvement. Leckie et al. (2016), which replicated the scale of Hollebeek et al. (2014) have also empirically verified that the

involvement positively influences on each consumer engagement dimensions, which leads us to hypothesize that:

H3: Brand involvement is positively associated with consumer engagement with brand community.

2.3.4. Relation between consumer engagement and corporate reputation

Theoretical articles already suggested that corporate reputation represents a consequence of the customer engagement behavior (e.g., van Doorn et al., 2010), being one of the main benefits for brands. The online brand community literature also suggested that the improvement in corporate image (different, but related to corporate reputation) is a consequence of consumer engagement in this context.

Empirically, Dijkmans et al. (2015) showed that the engagement in company's social media activities is positively related to corporate reputation, especially among non-customers. Similarly, Li et al. (2013) identified that user engagement is positively related to firms' reputation in social media, which leads us to hypothesize that:

H4: Consumer engagement with brand community is positively associated with corporate reputation.

2.3.5. Mediating role of consumer engagement

The theoretical framework of Van Door et al. (2010) suggested that antecedents based on customer, firm and context can benefit consumers or businesses through customer engagement behavior. Similarly, Wirtz et al. (2013) proposed an implicit relationship by means of online brand engagement, in which brand, social and functional drivers create value for consumers and companies.

Besides these theoretical works indicate that the consumer engagement plays the central role, Hollebeek et al. (2014) identified that the consumer brand engagement with the social media itself has an important mediating role between consumer involvement with consumer self-brand connection and brand usage intent.

Likewise, Berger, Schlager, Sprott, and Herrmann (2017) found that the effect of gamified interactions on self-brand connections is mediated by emotional and cognitive brand engagement. Finally, Leckie et al. (2016) also found that consumer engagement on mobile phone service providers context is a mediator of the relationships between consumer participation and self-expressive brand on brand loyalty. Together, these studies have shown that consumer engagement has a strong mediating role in the context of brand-consumer interaction.

Taking into account the central role of engagement and the lack of previous evidence of a direct relationship between perceived homophily and brand involvement with corporate reputation, we propose that engagement is an important mediator of this relationship. Consequently, we expect the indirect (mediated) relationship to be stronger and we propose the following hypotheses:

H5: Consumer engagement with brand community significantly mediates the relationship between perceived homophily and corporate reputation.

H6: Consumer engagement with brand community significantly mediates the relationship between brand involvement and corporate reputation.

In Figure 2.1 we summarize the model we test in this research, showing the constructs, their dimensions and hypothetical relationships.

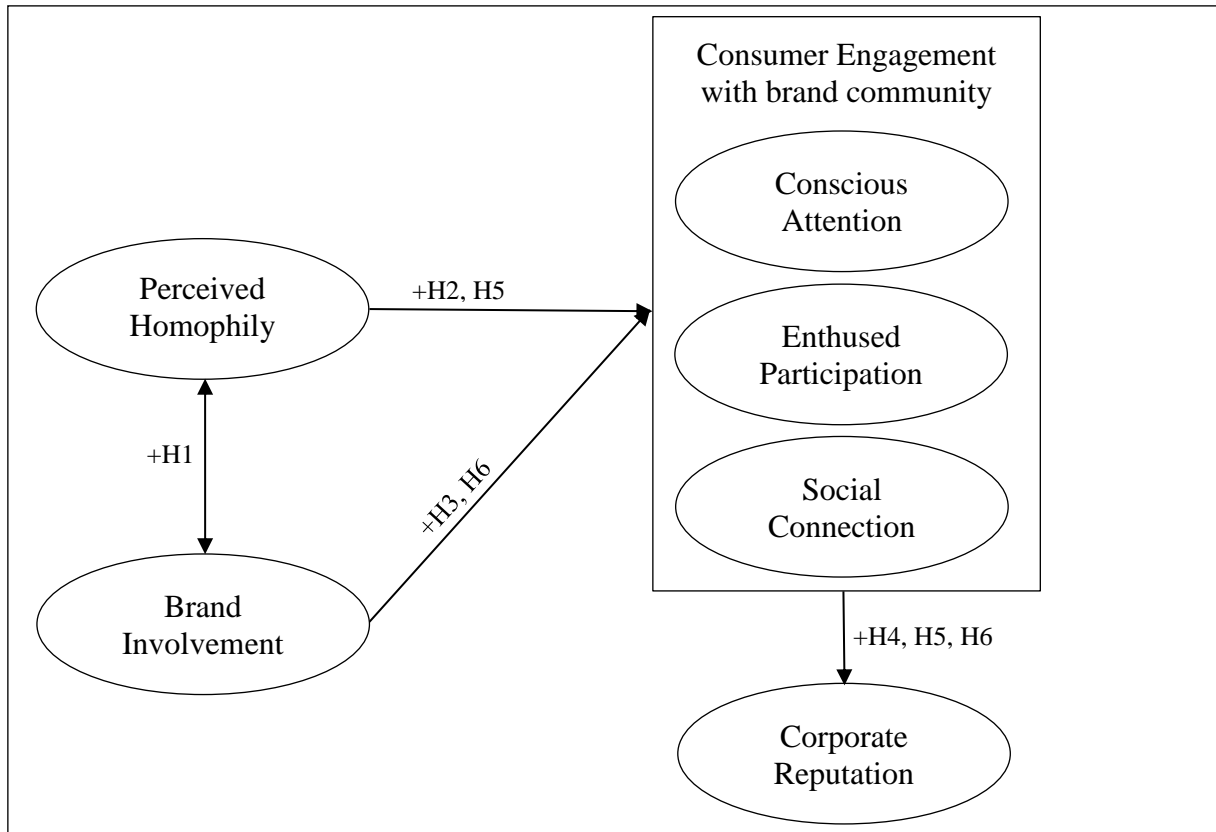


Figure 2.1. Conceptual model.

2.4. Method

2.4.1. Sample

We performed a survey with followers of different brand pages. As a filter, we asked for the respondents if they have Facebook, if they follow brands and on their recent frequency of use. Those who do not have Facebook profile, do not follow brands and/or do not have a good frequency of access on Facebook were excluded from the sample.

As a final check, we verified the pages indicated by respondents and deleted those that indicate inactive or low interaction pages (as Ridings, Gefen, & Arinze, 2002). We considered inactive or low interaction pages those with less than seven brand posts in the last week. Those that pass through these filters correspond to our sample / population of interest.

2.4.2. Measures

First, we translate and adapt scales (DeVellis, 2003; Netemeyer, Bearden, & Sharma, 2003). We translate all scales (see Appendix 1) for Portuguese following a collaborative and interactive approach to instrument translation (Douglas & Craig, 2007). First three Ph.D. students with different skills translated items and a professor with knowledge of questionnaire design and linguistic skills acted as an adjudicator to solve conflicting translations. To standardize the scales used, we decided to use five-points for Likert and semantic differential scales.

Homophily. McCroskey et al. (1975) developed the most used scale to measure homophily, but McCroskey, Richmond, and Richmond (2006) reviewed and reduced the construct from 4 to 2 dimensions: attitude and background. As background (social class, status, economic situation, geographic region, and others) does not apply to brand-consumer relationship, we follow Chu and Kim (2011) and use only the attitude dimension.

Consumer Involvement. Following Hollebeek et al. (2014), that consider consumer involvement related but different from consumer engagement, we understand that involvement includes the level of interest and personal relevance of individuals in relation to a focal object in terms of values, goals and self-concept (Mittal 1995; Zaichkowsky, 1994). We measure it with the semantic differential scale developed by Zaichkowsky (1994).

Consumer Engagement. Among the main scales developed and validated to measure consumer engagement, those of Dessart et al. (2016), Hollebeek et al. (2014), and Vivek et al. (2014) appear as the most appropriate to be applied to this research. Of these, the scale of Vivek et al. (2014) was tested in several contexts and presented good statistical indexes (such as factor loading, reliability, convergent and discriminant validity), besides contemplating the multidimensionality predicted by the definition of the construct with its ten items. Considering our objective to prove that this scale can also be adapted to several objects, we decided to measure consumer engagement with the brand community through the scale of Vivek et al. (2014), which is composed of the conscious attention (cognitive), enthused participation (behavioral and emotional) and social connection (social aspects) dimensions.

Corporate reputation. As discussed earlier, corporate reputation can be measured as a one-

dimensional or multidimensional construct. In the absence of a consensus on the valid scales for this construct and considering that this study aims to analyze this construct in a nomological network, we opted for a one-dimensional scale. Analyzing different instruments of research, we decided to use the three items developed by Nguyen and Leblanc (2001) to measure the corporate reputation.

2.4.3. Pretests

We did two pretests. First, 53 followers of active football pages answered the link of the questionnaire developed in Qualtrics. They were accessed by convenience through for convenience among our friends on Facebook and answered the questionnaire based on the brand that he/she more interacts on Facebook (see Appendix 2). As this first pretest aimed specifically to verify whether the writing of the items was appropriate, we asked respondents to indicate only the official football club page they usually followed.

As a result, this first pretest led us to delete two items of customer brand Involvement scale. These items (unimportant / important; mundane / fascinating) have also been excluded by Hollebeek et al. (2014), suggesting that they should not fit for the social media context (Varki & Wong, 2003). Three other items that used the word 'interaction' for different constructs presented problems. These have been later modified to facilitate the understanding of what we believe to represent the user interaction to each item. No other problems were found, indicating the validity of the data.

As we analyze the community engagement with brands in general, we conducted a second pretest to check if different types of brands (e.g., beverage, media, sports, electronics, retailers, industries, among others) do not hinder the understanding of respondents (see Appendix 3). We send this survey through Vidi Shoppers database, a national online database that was also used in the final research.

From 51 valid responses, most were women (70.6%), married (43.1%), with higher education level (43.1% complete and 19.6% incomplete), income between R\$ 3,520.01 and R\$ 8,800.00 (43.1%) and with a mean age of 35.2 (9.78) and 45 different brands were indicated. Most of these brands belonged to sectors such as hygiene and cosmetics (10), automotive (7), fashion (6), technology (4) and retail (4). As our analysis of the questionnaire showed that the items

had a good adaptability for the various types of brands mentioned, we maintained the instrument for the final research.

2.4.4. Analysis and Procedure

We analyzed the data using covariance-based Structural Equation Modelling (CB-SEM) using Amos 22.0 software, more recommended if the goal is “theory testing, theory confirmation, or comparison of alternative theories” (Hair, Ringle, & Sarstedt, 2011, p. 144).

We conducted the analysis in two stages. At first, for each construct, we realize tests of reliability and construct (convergent and discriminant) validity using the confirmatory factorial analysis. We followed Fornell and Larcker (1981) to test for the composite reliability, convergent and discriminant validity of the constructs. Lastly, we analyzed the structural model considering the chi-square per degree of freedom (χ^2/df), GFI, TLI, CFI and RMSEA indices for the model fit, providing a good background for assessing the suitability of the estimated model. Usually, $\chi^2/df < 5.0$ indicate good fit, and the literature also recommends cutoff value above to .90 for GFI (Hair, Black, Babin, & Anderson, 2009), cutoff value close to .95 for TLI and CFI (Hu & Bentler, 1999), and cutoff value close to .06 for RMSEA (Hu & Bentler, 1999).

As this phase included a primary data collection, we also perform the Harman single factor test (Podsakoff & Organ, 1986) to check the common method variance and verify if respondents tended to answer all the questions under the influence of a unique trace.

2.5. Results and discussion

2.5.1. Sample description

Our final collection obtained 658 responses, of which 277 were valid. We excluded answers with the same degree of agreement or incomplete, respondents who did not follow brands (or followed pages with low interaction) and who answered erroneously the questions that checked the respondent's attention. 54 outliers have been changed to the minimum not discrepant.

Our sample consisted mostly of women (62.5%), married (50.9%), with higher education level (33.5% complete and 26.5% incomplete), income between R\$ 3,520.01 and R\$ 8,800.00 (39%)

and with a mean age of 35.2 (9.78). There were 166 different brands cited, showing a wide variety of sectors and sizes of companies and brand communities. The most cited brands were Samsung (16), Nike (12), Flamengo (9), Apple (6), Adidas (5), Dafiti (5) and Fiat (5), while the sectors that stood out were technology, hygiene and cosmetics, sports, automotive, fashion, retail, food and beverage.

Regarding the items of the scales, Table 2.1 shows the means and standard deviations. The average brand community engagement (3.27) is slightly above the middle of the scale, being higher for conscious attention (3.75) and smaller for dimension enthused participation (2.85). This result is similar to that found by Vivek et al. (2014), in which the cognitive engagement is greater than the behavioral, affective and social.

Table 2.1. Scales for constructs measurement and descriptive statistics.

Construct	Source	Item	Items description	M	SD
Brand Involvement	Zaichkowsky (1994)		<i>[Brand] is:</i>		
		Inv2	Boring / Interesting	4.18	1.00
		Inv3	Irrelevant / Relevant	3.96	0.96
		Inv4	Unexciting / Exciting	3.77	1.03
		Inv5	Means nothing / Means a lot to me	3.74	1.07
		Inv6	Unappealing / Appealing*	4.08	0.98
		Inv8	Worthless / Valuable	4.00	0.99
		Inv9	Uninvolving / Involving	3.92	0.98
		Inv10	Not needed / Needed	3.97	0.98
Perceived Homophily (attitude dimension)	McCroskey et al. (2006)		<i>Other followers of the [Brand] community:</i>		
		H1	Does not think like me / Thinks like me	3.64	0.96
		H2	Behaves like me / Does not behave like me	3.46	1.03
		H3	Similar to me / Different from me	3.54	0.99
CE with brand community (conscious attention dimension)	Vivek et al. (2014)	CA1	Publications related to the [Brand] community on Facebook grabs my attention	3.75	0.94
		CA2	I like to learn more about [Brand] through its Facebook community*	3.72	1.09
		CA3	I pay a lot of attention to the publications related to the [Brand] community on Facebook	3.78	0.96
		EP1	I spend a lot of my discretionary time interacting with [Brand] community on Facebook	2.63	1.21
CE with brand community (enthused participation dimension)	Vivek et al. (2014)	EP2	I am heavily into [Brand] community on Facebook	3.14	1.10
		EP3	I am passionate about publications on [Brand] community on Facebook*	3.40	1.10
		EP4	My days would not be the same without the [Brand] community on Facebook	2.26	1.28
		SC1	I like to interact with the [Brand] community on Facebook when my friends are also interacting*	3.35	1.14
CE with brand community (social connection dimension)	Vivek et al. (2014)	SC2	I enjoy [Brand] community on Facebook more when there are other people interacting	3.24	1.10
		SC3	It is more fun to interact with the [Brand] community on Facebook when other people participate in the interaction	3.42	1.14
		Rep1	In general, I believe that [Brand] always fulfills the promises it makes to its customers	3.88	0.95
Corporate Reputation	Nguyen and Leblanc (2001)	Rep2	[Brand] has a good reputation	4.29	0.81
		Rep3	I believe that the reputation of [Brand] is better than that other companies*	3.82	0.93

Notes — *Excluded items; M = Mean; SD = Standard deviation; n = 227.

The average of perceived homophily with the other members of the brand community was also high (3.53), suggesting that respondents believe that others think and behave similarly to them. Brand involvement (3.95) and corporate reputation (3.99) were much larger than the midpoint, showing that our sample is composed of respondents who indicated brands with which they have high involvement and consider having a good corporate reputation.

2.5.2. *Result for each construct*

We used maximum likelihood estimation and started with the confirmatory factorial analyzes (CFAs) of each construct, and then we analyzed the structural equations model. The 8-items of the brand involvement scale suggested a reasonable fit of the model: $\chi^2 (20) = 79.193$ ($p < .001$); $\chi^2/df = 3.960$; GFI = .926; TLI = .947; CFI = .962; and RMSEA = .104. As Inv6 presented the lowest factor load (.73) and high modification index (19.6, associated to item Inv4), we chose to exclude it, resulting in a better model fit: $\chi^2 (14) = 41.286$ ($p < .001$); $\chi^2/df = 2.949$; GFI = .958; TLI = .970; CFI = .980; and RMSEA = .084.

As perceived homophily is a 4-items scale, some more sensitive adjustment indices (e.g., χ^2/df), showed a result lower than desired: $\chi^2 (2) = 19.735$ ($p < .001$); $\chi^2/df = 9.868$; GFI = .963; TLI = .913; CFI = .971; and RMSEA = .179. Despite this, factor loads were high (between .80 and .82) and modification indices were low.

The CFA for the three-factor brand community engagement scale indicated a good fit of the model: $\chi^2 (32) = 71.436$ ($p < .001$); $\chi^2/df = 2.232$; GFI = .950; TLI = .944; CFI = .961; and RMSEA = .067. However, the factor loads of some items were slightly below .70, reducing the convergent and discriminant validity. Considering that we apply this scale in a context (social media) and object (brand community) different from what was developed, we consider the results satisfactory, but additional adjustments are necessary. We excluded one item per dimension (CA2, EP3 and SC1 with factorial loads between .67 and .71), improving the convergent and discriminant validity of the dimensions of the construct and maintaining the model fit: $\chi^2 (11) = 29.971$ ($p = .002$); $\chi^2/df = 2.725$; GFI = .970; TLI = .939; CFI = .968; and RMSEA = .079.

Finally, corporate reputation was measured using three items, which makes it impossible to consider the adjustment indices of the model for this construct. As a result of the CFA, the items

presented satisfactory factorial load, except for Rep3 (.61), which we excluded from the analysis.

2.5.3. Result of the structural model

Before analyzing the structural model proposed by Figure 2.1, we performed a CFA with all six constructs (involvement, homophily, reputation and the three engagement dimensions) to check for the existence of correlation among the constructs. According to Table 2.2, the results indicated that there are significant correlations (between .22 and .69) with all pair of constructs. The level of significance was $p < .000$ (except for EP-Rep with $p = .007$ and Hom-Rep with $p = .002$).

We found that the highest correlations were between engagement dimensions (between .55 and .69). This result was expected and confirmed literature to indicate a greater correlation for dimensions of the same construct. The other correlations were .47 or less, except for the correlation between CA-Rep (.68).

Table 2.2. Correlation Matrix, reliability, convergent and discriminant validity.

	M	SD	α	CR	Inv	Hom	CA	EP	SC	Rep
Involvement (Inv)	3.93	1.00	.93	.93	.65	.22	.21	.13	.09	.19
Homophily (Hom)	3.53	.99	.89	.89	.47***	.66	.12	.09	.07	.06
Conscious Attention (CA)	3.76	.95	.68	.68	.46***	.35***	.51	.47	.30	.46
Enthusied Participation (EP)	2.67	1.25	.76	.76	.36***	.30***	.69***	.51	.45	.05
Social Connection (SC)	3.33	1.12	.75	.76	.30***	.27***	.55***	.67***	.61	.13
Reputation (Rep)	4.09	.91	.68	.68	.44***	.24**	.68***	.22**	.36***	.52

Notes — M = Mean; SD = Standard deviation; α = Cronbach's alpha; CR = composed reliability; ***bivariate correlations between the constructs significant at $p < 0.001$ or at ** $p < 0.01$; AVEs are shown on the diagonal (in bold); squared correlations are shown above the diagonal; n = 277.

Confirmed the existence of correlation, we found that the reliability of the constructs was satisfactory (between .68 and .93). The exclusion of an item from conscious attention and corporate reputation constructs reduced their reliability, measured by only two items. Both presented Cronbach's alpha (.68) and composed reliability (.68) below .70. Despite this, we opted to proceed with the analysis and maintain the exclusions since the reliability was close to the recommended and there are authors that attest reliability higher than .60.

The average variance extracted (AVE) between .51 and .66 suggests convergent validity of the constructs (see Table 2.2). As the variance between pairs of constructs was smaller than the

variance within the constructs (AVE), our results also indicated the discriminant validity (Fornell & Larcker, 1981) for 15 possible construct pairs.

Finally, the hypothesized structural model (Figure 2.2) showed good model fit: $\chi^2 (163) = 335.388$ ($p < .001$); $\chi^2/df = 2.058$; GFI = .891; TLI = .931; CFI = .941; and RMSEA = .062. The standardized regression weights of all items were satisfactory (between .68 and .88).

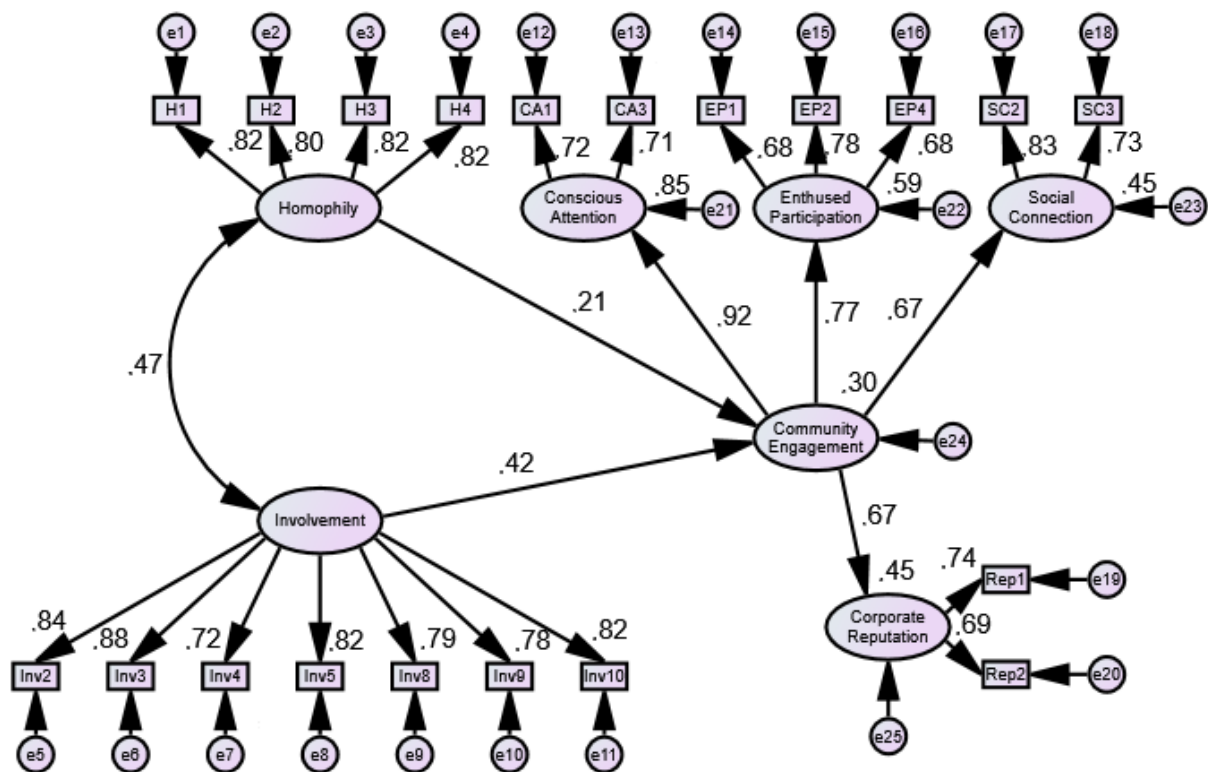


Figure 2.2. Hypothesized structural model.

As we collected primary data, we applied the Harman single factor test to verify whether our data were affected by common method variance (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). As the first explained factor only explained 34% of the data variance (less than 50%), we concluded that the common method variance had not much influence on the data and therefore is unlikely to affect our results and their interpretation (Podsakoff et al., 2003).

2.5.4. Hypothesis test

As shown in Figure 2.2, we found a positive correlation between perceived homophily and brand involvement (supporting H1). Perceived homophily also has a significant relationship with community engagement, in the same way that brand involvement showed a positive relationship

with community engagement. These results provide support to the hypotheses H1 and H2 (See Table 2.3), and allows us to conclude that the aspects related to other members of the brand community (such as perceived homophily) and brand itself (such as brand involvement) can positively influence community engagement. In particular, brand involvement has a greater impact than perceived homophily. Together, the two constructs explain .30 of engagement, showing a reasonable explanatory power if we consider that there are different drivers that influence community engagement, especially aspects related to the community itself, such as the type of content.

Table 2.3. Hypothesis testing results.

No.	Hypothesis	β	($t_{critical}$)	p	Result
H2	Perceived homophily is positively associated with consumer engagement with brand community.	.206	2.655	.008	Confirmed
H3	Brand involvement is positively associated with consumer engagement with brand community.	.421	5.162	.000	Confirmed
H4	Consumer engagement with brand community is positively associated with corporate reputation.	.670	6.608	.000	Confirmed

Notes — β = Standardized regression weight.

We also find similar results when we analyze the effect of community engagement on corporate reputation. In addition to a significant positive effect (H4), in the absence of the independent variables, community engagement has an effect of .39, rising to .45 when we include independent variables without the direct effect on corporate reputation. This result corroborates the results found by Dijkmans et al. (2015), in which engagement in company's social media activities affects corporate reputation as well as mediate the relationship between the intensity of social media use and corporate reputation.

We conducted two tests to check mediation hypotheses. First, we followed Baron and Kenny (1986), who suggested that there is mediation only if the direct relations between independent variable-mediator, independent-dependent variable, and mediator-dependent variable are significant. In this case, there is partial mediation when the insertion of the mediator in the model reduces the effect of the independent variable on the dependent, or total mediation when this relation becomes non-significant (Baron & Kenny, 1986).

Starting with perceived homophily, we found significant direct relationships between perceived homophily and community engagement ($p < .001$, $R^2 = .14$), perceived homophily and corporate reputation ($p < .001$, $R^2 = .09$), and community engagement and corporate reputation

($p < .001$, $R^2 = .39$). With the inclusion of the mediator variable, only community engagement ($\beta = .56$, $p < .001$) contributed significantly to explain corporate reputation ($R^2 = .37$). The effect of perceived homophily ($\beta = .11$, $p = .13$) on corporate reputation became not significant, indicating that the community engagement is a fully mediator of this relationship (β between perceived homophily and corporate reputation reduced from .30 to .11).

In relation to brand involvement, we also verified significant direct relationships with community engagement ($p < .001$, $R^2 = .22$) and with corporate reputation ($p < .001$, $R^2 = .21$), as well as the relationship between community engagement and corporate reputation ($p < .001$, $R^2 = .39$). By including community engagement as mediator, both brand involvement ($\beta = .20$, $p = .013$) and community engagement ($\beta = .53$, $p < .001$) made significant contributions to explain corporate reputation ($R^2 = .43$), indicating a partial mediation of community engagement (reducing the β between brand involvement and corporate reputation from .46 to .20).

In a more recent work, Zhao, Lynch Jr. and Chen (2010) criticize the criteria adopted by Baron and Kenny (1986), questioning the Baron and Kenny three tests + Sobel steps. According to the authors, a significant indirect effect is sufficient to have mediation, even when the direct effect is not significant.

We followed the steps proposed by Zhao et al. (2010, p. 204) and employed the recommended 5000 bootstrap samples at the 95% confidence level (Hollebeek et al., 2014). Our results showed (Table 2.4) the existence of significant indirect effect (mediated by community engagement) both between perceived homophily and corporate reputation ($\beta = .10$, $p = .009$), and between brand involvement and corporate reputation ($\beta = .20$, $p < .001$). As we identified non-significant direct effect of perceived homophily ($\beta = .02$, $p = .815$) and brand involvement ($\beta = .196$, $p = .118$) on corporate reputation, our results suggest full mediation for both. According to Zhao et al. (2010), our results correspond to indirect-only mediation, suggesting that the mediator cannot be omitted and providing supports for H5 and H6.

Table 2.4. Result of mediation hypotheses.

No.	Hypothesis	Direct effect	<i>p</i>	Indirect effect	<i>p</i>	Result
H5	Consumer engagement with brand community significantly mediates the relationship between perceived homophily and corporate reputation.	.023	.815	.107	< .01	Full mediation
H6	Consumer engagement with brand community significantly mediates the relationship between brand involvement and corporate reputation.	.196	.118	.205	< .001	Full mediation

2.6. Conclusion

In this article, we address theoretical, methodological and managerial implications. Theoretically, our first goal was to fill a knowledge gap by testing a theoretical framework, in which we consider different drivers of community engagement and the benefit of this engagement for the company (Wirtz et al., 2013, van Doorn et al., 2010), contributing to the consumer-brand relationship and marketing relationship literature.

While some studies have analyzed the role of the communication channel and aspects related to the company itself as drivers of engagement (e.g., Li et al., 2013), here we analyzed the impact of aspects related to the brand and other community members in community engagement.

A second theoretical contribution of our research is to approximate two major currents of study: brand engagement and community engagement. As engagement literature suggests that this construct varies according to the subject, object, and context of analysis, these two areas are discussed separately, but some empirical studies already showed the possibility of converging these areas in the context of social media (Dessart et al., 2016).

If on the one hand Dessart et al. (2016) validated a scale that serves to measure engagement with different objects (brand and community), on the other hand Vivek et al. (2014) validated a scale for measuring brand engagement in multiple contexts. This has led us to question whether engagement must have fragmented streams of study for each combination of subject, object, and context. Thus, we suggest that keeping the subject constant (consumer, in our case), literature can converge to a single definition and measurement instrument in different contexts and with different objects of engagement.

Third, our results show that perceived homophily with the other community members, a widely used in the communication literature that has been neglected by marketing literature, has a positive correlation with brand involvement and impact on brand community engagement. This result contributes to the brand community area by confirming that aspects related to the brand itself and other followers (Brown et al., 2007) can promote community brand engagement (Baldus et al., 2015).

Also, we reinforce the findings of previous studies (Hollebeek et al., 2014; Leckie et al., 2016) noting that brand involvement also positively affects community engagement, and the last positively impacts on corporate reputation (van Doorn et al., 2010; Dijkmans et al., 2015). Although we did not create a hypothesis relating brand involvement and corporate reputation, the results showed a significant and positive relationship between the constructs. New research should better analyze this relationship.

As a methodological contribution resulting from this theoretical contribution, we propose that the Vivek et al. (2014) scale, validated in multiple contexts, can also be adopted to measure engagement with multiple objects. To do so, we validate this scale concerning brand communities (object), while the scale was originally developed to measure the engagement with brands. Our results attested to the reliability, convergent and discriminant validity of the scale and provide a short multidimensional scale option to measure the construct, since most community engagement scales were developed with 6, 7, 8 or even 11 dimensions (e.g., Baldus et al., 2015; Calder et al., 2009, Dessart et al., 2016), making it difficult to validate them in a nomological network.

We also confirm the mediating role of community engagement (Dijkmans et al., 2015). Theoretical studies have already suggested that this construct has antecedents related to different drivers (consumer, company, brand, community, context, channel, among others) that generate benefits for consumers and companies through engagement with the brand community (van Doorn et al., 2010; Dijkmans et al., 2015). We have found that the perceived homophily and brand involvement have a positive effect on corporate reputation fully mediated by community engagement.

As a managerial contribution, this research identifies that managers may increase community engagement mainly through brand involvement. However, the company must attract to its

community customers with similar characteristics to increase the perceived homophily among members, which in turn improves the community engagement. In the same way that the company imagines an audience when developing a product for their consumers, these result advice managers that the company must also create a brand community with a specific audience, rather than just worry about the number of followers (see Wirtz et al., 2013).

By increasing brand community engagement, the company improves the way it is viewed by its followers, either by the significant direct effect on corporate reputation or by the indirect effect that this important mediating variable has. This result suggests to managers that community engagement is doubly important and can improve or restore corporate reputation.

The measures tested in this research also serve as support for practitioners, since they represent an alternative or complement measures provided by the social media themselves. For example, a social media manager can use Facebook metrics and conduct a survey with community members to develop strategies and improve their results.

Finally, our study presents some limitations, such as high brand involvement of our sample, which suggests that our results are only valid for consumers highly involved with brand. We also measure corporate reputation through only two items, while many studies show the multidimensional nature of this construct. We also were not able to show a perfect adaptation of the Vivek et al. (2014) scale when we measured the community engagement, since three items were excluded because they undermined the validation of the scale.

Future research should attempt to access people with low brand engagement and check their effect on consumer engagement, especially because other studies have also accessed consumers with higher involvement with brands (e.g., Hollebeek et al., 2014; Leckie et al., 2016). Likewise, future research should adapt the scale of Vivek et al. (2014) for a better fit in the context of online brand communities, or replicate with other objects or communication channels to increase their external validity.

3. CHAPTER 3 – ARTICLE 2

ARTICLE 2

A COMPARATIVE ANALYSIS OF CONSUMER ENGAGEMENT SCALES WITH BRANDS IN SOCIAL MEDIA

Abstract

As engagement is a construct that varies according to the subject, object, and context, this has been used to justify the coexistence of various definitions and scales. However, scales with similar object and context or applied to multiple contexts and objects, making hard for researchers to define the main criterion for choosing the appropriate scale. Instead of launching another specific scale, our goal is to compare some scales of consumer engagement with brands in social media and create a procedure for selection, standardization and comparative analysis of these measures. Our argument is that maintaining the subject (consumer) constant, a single scale can be used to measure the engagement with different objects and contexts. Considering the classical test theory and the item response theory, our results showed the advantages and gave recommendations for applying three different scales of consumer engagement. Methodologically, the establishment of a procedure for scale comparison fills a gap and has proved useful in assisting researchers in choosing specific measures.

Keywords: scale comparison, classical test theory, item response theory, consumer engagement, brand engagement.

3.1. Introduction

Considering that virtual social media are also able to influence preferences and purchase decisions, it is important to manage the customer relationship in these spaces. Seeking to measure the success of their social media marketing efforts and create an optimized strategy, companies and researchers found that social media can be used to generate growth in sales,

return on investment, and positive word of mouth and can spread brand knowledge (Kumar, Bhaskaran, Mirchandani, & Shah, 2013).

As a result of this interest, a construct that was called consumer or customer engagement (Hollebeek, Glynn, & Brodie, 2014) began to gain strength between marketers and researchers of consumers-brand relationships in social media. In addition to directly influence the sale, engagement with company's activities in the social media improves corporate reputation (Dijkmans, Kerkhof, & Beukeboom, 2015), leading most of the Fortune Global 100's companies (87%) to be active on at least one social media (Burson-Marsteller, 2012).

Since 2010 the consumer engagement and social media are in the research priorities lists of Marketing Science Institute (MSI, 2010; 2012; 2014; 2016). Attending to this request, several researchers have worked for a better understanding of the concept, measurement and the process of engagement, generating a growth of publications and special issues in several journals, such as: *Journal of Service Research* (2010), *Journal of Strategic Marketing* (2011), *Journal of Service Research* (2011), *Journal of Product & Brand Management* (2014), *Journal of Strategic Marketing* (2015), *Journal of Marketing Management* (2016), *Journal of Service Theory and Practice* (2017), *Journal of Services Marketing* (scheduled to 2017) and *Journal of Advertising* (scheduled to 2017).

According to most academics, the engagement is a construct that varies according to the subject (e.g., customer, employee, student), focal object (e.g., brand, product, advertising), and context (e.g., online, off-line) (Brodie, Hollebeek, Jurić, & Ilić, 2011; Brodie, Ilić, Jurić, & Hollebeek, 2013; Hollebeek, 2011a, Vivek, Beatty, Dalela, & Morgan, 2014), which explains the use of different theories, concepts, definitions and forms of measurement, beyond the engagement validation with different antecedent and consequences.

This perception of the construct that depends on the subject, object, and context has been used to justify the coexistence of various definitions and scales, under the argument that the disadvantage of having a universal scale is that the items should be so generic that it cannot fully capture the specific experiential qualities that underlie engagement (Brodie et al., 2011; Calder, Malthouse, & Maslowska, 2016).

However, several scales consumer (subject) engagement with similar object and context has been launched, when could be adopted an already validated scale. For example, Hollebeek et al. (2014) developed a scale to measure consumer (subject) brand (object) engagement in social media (context), while Baldus, Voorhees, and Calantone (2015) developed a scale to measure the online brand community engagement. Although varying only in relation to the object (brand versus brand community), Dessart, Veloutsou, and Morgan-Thomas (2016) also developed a third scale which measure both the customer engagement with a brand and brand community (multiple objects), suggesting that a single scale can be applied to different objects in social media context.

As well as Dessart et al. (2016) have validated a scale for multiple objects, Vivek et al. (2014) validated a scale in multiple contexts (Apple products and retail), which suggests the possibility of a single scale to measure the engagement with different objects and contexts, maintaining the subject (customer) constant.

However, the proximity of the object and context of most consumer engagement measures makes it difficult for researchers to choose the most appropriate scale. They may have problems in defining the main criterion for choosing the appropriate scale, such as the context, focal object, statistical adjustment, the most replicated or the scale published in the journal with a higher impact factor. For example, there is research that preferred to use the scale of Vivek et al. (2014) to measure consumer engagement in social media context (e.g., Aragão, 2016), when Hollebeek et al. (2014) proposed and validated a range specifically for this context.

With the aim to compare some of the main scales developed to measure consumer engagement, in this article we also define procedures: i) for the selection; ii) standardization; and iii) analysis of the consumer engagement measures. We selected only measures that specifically analyzed consumers as subject, that fit the definition and dimensionality adopted and that may be applied to multiple objects and contexts. To standardize measures, we replicated these scales with a single object (brand), context (social media) and with the same amount of points (5 points-Likert scale). For comparative analysis, we suggested the use of the widely used classical test theory (CTT), considering the model fit, reliability, convergent and discriminant validity of scales, and also the item response theory (IRT).

By applying this procedure, we selected three scales of consumer engagement among thirteen measures listed: Dessart et al. (2016), Hollebeek et al. (2014) and Vivek et al. (2014). As a result of standardization and comparative analysis, we verified specific advantages in the use of these measures, such as greater discrimination among dimensions by Vivek et al. (2014) scale, better reliability and convergent validity of Hollebeek et al. (2014) scale, while a reduced version of the Dessart et al. (2016) scale captured more information for affective and cognitive dimensions by IRT.

Comparing these engagement measures, our research brings theoretical, methodological and managerial contributions. Theoretically, we provide a complement to the study of Brodie et al. (2011), who sought to give a more general consumer engagement definition (versus more specific settings), without indicating an instrument to measure it with various objects and contexts. In addition to suggesting the use of IRT to analyze measures, we contributed methodologically with the establishment of procedures for the comparative analysis of measures, something that is not widely discussed in the literature. And finally, since our results indicate that the analyzed scales have specific advantages, practitioners can use our results to choose the scale that best matches their objectives.

In the following section, we present the evolution of the definition of consumer engagement, followed by a proposed definition. After presenting different measures of engagement, we also explained the procedures established for scales comparison and an application of these procedures to analyze scales of consumer engagement. Finally, we present the results, discussions, and implications of the research.

3.2. Literature review

3.2.1. Definitions

As stated earlier, the engagement is a construct that varies according to the context, object and subject (Hollebeek, 2011a, Vivek et al., 2014). Consumer engagement has been studied in the contexts of product brand, retail (Vivek et al., 2014), services (Jaakkola & Alexander, 2014) and online (Baldus et al., 2015). Among the objects of study, the most frequent is the brand (Hollebeek, 2011a; 2011b; Hollebeek et al., 2014; Solem & Pedersen, 2016; Sprott, Czellar, &

Spangenberg, 2009), followed by research that focus on communities (Algesheimer, Dholakia, & Herrmann, 2005; Baldus et al., 2015; Brodie et al., 2013), communication medium (Calder, Malthouse, & Schaedel, 2009), brand activities (Dijkmans et al., 2015) and social-media content (Schivinski, Christodoulides, & Dabrowski, 2016). The subject varies among employee (Kumar & Pansari, 2015), student (Fredricks, Blumenfeld, & Paris, 2004) and especially the consumer (Brodie et al., 2011; Brodie et al., 2013; Calder et al., 2009; Dessart et al., 2015; 2016; Dijkmans et al., 2015; Hollebeek, 2011a; 2011b; Hollebeek et al., 2014; So, King, Sparks, & Wang, 2016; van Doorn et al., 2010; Vivek et al.; 2014).

In this research, we focus on the study of engagement considering the consumer as the subject, having different terms to portray it, for example consumer engagement, customer engagement, brand engagement, customer brand engagement and customer engagement behavior. More comprehensive definitions, without specifying an object (e.g., customer brand engagement) or context (e.g., online brand community engagement), are more appropriate for this research because we consider that the context and the object can vary without the concept needs to be redefined. So, we use the term consumer engagement to refer to all these definitions. Table 3.1 below presents different concepts, definitions, subjects, objects and contexts of engagement.

Analyzing the definitions shown in Table 3.1, we found that Kahn (1990) was the first to use the term engagement in management. More specifically, he defined personal engagement as the harnessing of organization members' selves to their work roles, when people employ and express themselves physically, cognitively, and emotionally during role performances. Late, Harter, Schmidt, and Hayes (2002) refer to the term employee engagement as the individual's involvement and satisfaction with as well as enthusiasm for work. According to them, the engagement occurs when individuals are emotionally connected to others and cognitively vigilant.

In marketing, Algesheimer et al. (2005) were the first to measure the concept, or more specifically the brand community engagement, defined as positive influences of identification with the brand community through the consumer's intrinsic motivation to interact/co-operate with community members, measuring it through emotional, social and utilitarian aspects. In 2010, two conceptual articles provided distinct and complementary definitions: Mollen and Wilson (2010) defined online engagement as a "cognitive and affective commitment to an active relationship with the brand" (as personified by the website) (Mollen & Wilson, 2010, p.

12), while van Doorn et al. (2010) defined customer engagement behaviors “as the customers’ behavioral manifestation toward a brand or firm, beyond purchase, resulting from motivational drivers” (p. 254).

These definitions show the evolution of consumer engagement definition in marketing, where different researches indicated its different aspects. Hollebeek (2011a) was one of the first to add on a single definition cognitive, emotional and behavioral aspects of engagement in direct brand interactions, while Mollen and Wilson (2010) have extended engagement in virtual environments through the personification of the website or by other entities mediated by computer.

To compare different instruments to measure consumer engagement, in this study we consider the most comprehensive definitions as more appropriate, since it involved the cognitive, emotional and behavioral aspects of engagement. Therefore, we believe that consumer engagement is a consumer's positive level of cognitive, emotional and behavioral investment with a focal object (Hollebeek, 2011b; Brodie et al., 2011; Hollebeek et al., 2014), in specific direct (Hollebeek, 2011a) or indirect interactions, as personified by websites (Mollen & Wilson, 2010), brand communities (Algesheimer et al., 2005), or advertising (Phillips & McQuarrie, 2010).

Accordingly, consumer engagement appears as a multidimensional concept compound, but not limited, to cognitive, emotional and behavioral dimensions relevant to consumers (Brodie et al., 2011) with a specific object and context. Next, we present a discussion of consumer engagement measures.

3.2.2. Measurement

Before the comparison, we list some of the key engagement measures in our area of interest, which are marketing, business and management (see Table 3.2). Since not all fit our definition, we first present the steps we follow to select, standardize and analyze these measures.

Table 3.1. Concepts, definitions and engagement objects.

Authors	Concept/Subject	Definition	Object/Context
Algesheimer et al. (2005)	Brand community engagement	Refers to positive influences of identifying with the brand community through the consumer's intrinsic motivation to interact/co-operate with community members.	Offline brand community
Baldus et al. (2015)	Brand community engagement	Is the compelling, intrinsic motivations to continue interacting with an online brand community.	Online Brand community
Brodie et al. (2011)	Customer engagement	A psychological state that occurs through interactive, co-creative consumer experiences with a focal agent/object (e.g., a brand) in focal brand relationships.	Brand
Brodie et al. (2013)	Consumer engagement	Is a context-dependent, psychological state characterized by fluctuating intensity levels that occur within dynamic, interactive engagement processes.	Virtual Brand community
Calder et al. (2009)	Consumer engagement	A second-order construct manifested in various types of first-order 'experience' constructs, with 'experience' being defined as a consumer's beliefs about how a (web)site fits into his/her life.	Communication medium (website)
Dessart et al. (2016)	Consumer engagement	The state that reflects consumers' individual dispositions toward engagement foci, which are context-specific. Engagement is expressed through varying levels of affective, cognitive, and behavioral manifestations that go beyond exchange situations.	Online (brand and community)
Dijkmans et al. (2015)	Consumer engagement	Consumer's familiarity with a company's social media activities (cognition) and the online following of these activities (behavior).	Company's social media activities
Harter et al. (2002)	Employee Engagement	Refers to the individual's involvement and satisfaction with as well as enthusiasm for work.	Work
Hollebeek (2011a)	Customer brand engagement	The level of an individual customer's motivational, brand-related and context-dependent state of mind characterized by specific levels of cognitive, emotional and behavioral activity in direct brand interactions.	Brand
Hollebeek (2011b)	Customer brand engagement	A customer's level of cognitive, emotional and behavioral investment in specific brand interactions.	Brand
Hollebeek et al. (2014)	Customer brand engagement	A consumer's positively valenced cognitive, emotional and behavioral brand-related activity during, or related to, specific consumer-brand interactions.	Brand
Kahn (1990)	Personal Engagement	The harnessing of organization members' selves to their work roles; in engagement, people employ and express themselves physically, cognitively, and emotionally during role performances.	Work
Mollen and Wilson (2010)	Engagement	The cognitive and affective commitment to an active relationship with the brand as personified by the website or other computer-mediated entities designed to communicate brand value.	Online Brand
So, King and Sparks (2014)	Customer Engagement	Define CE as a customer's personal connection to a brand as manifested in cognitive, affective, and behavioral responses outside of the purchase.	Brand
Sprott et al. (2009)	Brand engagement in self-concept (BESC)	BESC refers to consumers' propensity to include important brands as part of how they view themselves.	Brand
van Doorn et al. (2010)	Customer Engagement Behaviors (CEB)	CEB go beyond transactions, and may be specifically defined as a customer's behavioral manifestations that have a brand or firm focus, beyond purchase, resulting from motivational drivers.	Brand or firm
Vivek et al. (2014)	Customer Engagement	CE goes beyond purchase and is the level of the customer's (or potential customer's) interactions and connections with the brand or firm's offerings or activities, often involving others in the social network created around the brand/offering/activity.	Brand or firm

3.2.2.1. *Procedures for comparative analysis*

Considering that few studies empirically compare scales (e.g., Mittal, 1995) and lack an established procedure for this analysis, we have defined some steps that we consider necessary for i) the selection, ii) standardization and iii) analysis of the main measures.

In the first step, we defined five criteria to select among the measures presented in Table 3.2: i) they must have been developed to measure consumer engagement (consumer/customer as subject); ii) fit the definition adopted; iii) the set of items or dimensions cover cognitive, emotional and behavioral aspects; and are easily applied to iv) other objects and v) contexts. As it is easier to compare measurements with the same characteristics, we indicate that the selected scales are similar concerning dimensionality (one-dimensional or multidimensional).

After filtering the scales, as a second step, we standardize the selected measures considering the object, context, language, and number of points on the scale. To keep scales as close to the object and context for which they were developed, we suggest replicating scales with the most frequent object and context. Table 3.1, for example, shows that among the objects, the most common is brand, firm, or organization (Dessart et al., 2016; Hollebeek et al., 2014; Vivek et al., 2014), followed by the brand community (Dessart et al., 2016). About the context, most of the selected scales were developed for social media.

Regarding the language, we recommend following the steps suggested by Douglas and Craig (2007) to translate the measures into the desired language. This collaborative and iterative translation should also include the adaptation of the scale object and context. When scales are applied in the same language in which they were developed, it is still necessary for a group of academics with different skills to adapt the object and context.

We also recommend that measures be applied with the same length. If the selected scales were validated with different amounts of points, e.g., five-points and seven-points Likert scales, the same amount of points should be used for comparison purposes.

As the third and final step, the selected and standardized measures should be compared based on the indices of CTT, including reliability, convergent and discriminant validity, and for a more complete analysis, could also be verified based on the IRT, which indicates the degree of

difficulty of an item and how much it can discriminate people with similar levels of the same trait (engagement), as well as showing the amount of information captured by the scale (or item) for each level of trait, which is related to the reliability of the measurement in CTT.

3.2.2.2. *Measures*

After suggesting the steps for scale comparison, we discuss the adjustment of thirteen measures presented in Table 3.2 (details in Appendix 4) taking into account the five criteria for selection of these (step 1). We do not pretend to judge whether a measure is better or worse than the others, we include or not them in the analysis based on our definition and criteria mentioned.

Among the measures in Table 3.2, we consider that three scales developed almost in the same period fulfilled the five selection criteria (step 1): scale of Hollebeek et al. (2014), Vivek et al. (2014), and Dessart et al. (2016).

First, all these measures of engagement are scales that were developed according to the steps suggested in the literature and used consumers as the subject. As shown in Table 3.2, these scales also measure consumer engagement through dimensions that comprise at least cognitive, emotional and behavioral aspects, this also indicates that the scales agree with the definition adopted.

Concerning objects, the scale of Hollebeek et al. (2014) checked the engagement with social media itself (e.g., Facebook.com, Twitter.com and LinkedIn.com), while the scale of Vivek et al. (2014) checked engagement with Apple products and retail. Dessart et al. (2016) considered brand and community as an object, applying the same scale twice to analyze the brand and community engagement separately.

Regarding the context, Hollebeek et al. (2014) and Dessart et al. (2016) developed scales in the context of social media. The scale of Vivek et al. (2014), although it was not originally developed in this context, was designed to be used in different contexts, having been applied in social media by others (e.g., Aragão, 2016).

Table 3.2. Measurement of engagement in empirical researches.

Authors	Construct	Dimensionality							
		Cognitive	Emotional	Behavioral	Identification	Social	Utilitarian	Hedonic	Others
Algesheimer et al. (2005)	(Offline brand) community engagement		X			X	X		
Baldus et al. (2015)	Online brand community engagement	Up-to-date information	Brand passion	Brand influence; Helping	Connecting	Connecting	Rewards (Utilitarian); Seeking assistance	Rewards (Hedonic)	Like-minded discussion; Self-expression; Validation
Calder et al. (2009)	Consumer engagement with a website			Participation & socializing		Social facilitation; Participation & socializing; Community	Utilitarian	Intrinsic enjoyment	Stimulation & inspiration; Temporal; Self-esteem & civic mindedness
Dessart et al. (2016)	Consumer Engagement	Attention; Absorption	Enthusiasm; Enjoyment	Sharing; Learning; Endorsing				Enjoyment	
Dijkmans et al. (2015)	Consumers' engagement in a company's social media activities	Familiarity		Following activities					
Hollebeek et al. (2014)	Customer brand engagement	Cognitive processing	Affection	Activation				Affection	
Schivinski et al. (2016)	Consumer engagement with social media brand-related content			Consuming; Contributing; Creating					
So et al. (2014)	Customer Engagement	Attention	Enthusiasm	Interaction	X			Absorption	
Solem and Pedersen (2016)	Customer brand engagement	X	X	Behavioral; Behavioral intention					
Sprott et al. (2009)	Brand engagement in self-concept (BESC)		X		X				
Tsai and Men (2013)	Consumer engagement			Consuming; Contributing					
Verleye et al. (2016)	Customer Engagement Behaviors			Cooperation; Feedback; Compliance; Helping Other Customers; Positive WOM.					
Vivek et al. (2014)	Customer Engagement	Conscious attention	Enthusied participation	Enthusied participation		Social connection			

Among the measures not selected, for example, Algesheimer et al. (2005) measured community engagement as a one-dimensional construct based on motivational aspects, not being included in the analysis because it does not consider the different elements of engagement (cognitive, emotional and behavioral).

Calder et al. (2009) measured consumer engagement with a website based on experience with various means of communication. Although the eight dimensions include cognitive, emotional and behavior aspects, their definition is based on the collection of experiences with the site, distancing of the definition adopted in this research.

While Dijkmans et al. (2015) measured consumer engagement through familiarity with a company's social media activities (cognition) and on which social networking sites respondents follow the company (behavior), not properly developing a scale and not involving emotional aspects, Sprott et al. (2009) developed a one-dimensional scale of brand engagement in self-concept that focuses only on the emotional and identity aspects (Dessart et al., 2016). Although Sprott et al. (2009) have strictly followed procedures to establish a scale, the self-concept context was also very specific to generalize to other contexts.

Tsai and Men (2013) built a scale with eight of the seventeen reasons why people follow brands on social media indicated by the theoretical framework developed by Muntinga, Moorman, and Smit (2011). Originally, Muntinga et al. (2011) proposed that people: i) are motivated to consume; ii) create; iii) and contribute with content related to brand. However, Tsai and Men (2013) have excluded the second dimension of creation from the scale. In a further application of the model of Muntinga et al. (2011), Schivinski et al. (2016) have followed entire the process of scale development and validation (Churchill, 1979). As a result, the authors validated a scale with 17 items with high reliability (.88–.95) and explained variance (.66–.75) for all three dimensions. Through the post hoc analysis, Schivinski et al. (2016) also showed a hierarchical relationship existing among engagement dimensions, indicating that consumption of brand-related content leads to contributions (fully mediated), which in turn lead to creation. Additionally, nomological validity tests indicated that these three dimensions correlate positively and significantly with brand equity and brand attitudes. Despite the accuracy, the scale was not included because it considers only behavioral aspects.

Others who analyzed only behavioral aspects of engagement were Verleye, Gemmel, and Rangarajan (2014) and Verleye, Gemmel, and Rangarajan (2016). They measured customer engagement behavior (van Doorn et al., 2010) along to three dimensions related to consumer interaction with firm or employee (cooperation, feedback, and compliance) and two dimensions related to the interaction between consumers (helping other customers and positive WOM) in the context of the nursing home. Such as Tsai and Men (2013) and Schivinski et al. (2016), they did not consider cognitive and emotional aspects, and analyzed the engagement of family members (Verleye et al., 2014) or nursing home residents (Verleye et al., 2016) with various objects in a single scale (e.g., firm, employee and other customers). Unfortunately, according to the definition of engagement, which suggests investment with only one focal object, we prefer not to include this scale in our analysis. Dessart et al. (2016), for example, have avoided this problem by using the same scale twice, once for brand engagement and once for brand community engagement.

For the same reason the scale of So et al. (2014) was not included in our analyzes. They checked engagement with brands in the tourism industry (e.g., hotel and airlines), and four of the five dimensions measured engagement with the brand, while the interaction dimension, adapted Wiertz and De Ruyter (2007), measured the engagement with the community of the brand.

Solem and Pedersen (2016) measure combines the psychological aspects mentioned by Hollebeek et al. (2014), expressed by cognition, emotion, and 'behavioral intention', and behavioral manifestations indicated by van Doorn et al. (2010), expressed by 'likes' and 'comments' on Facebook. Although it fits in subject, object, and context with this research, they did not follow the steps to validate a scale and only created items to reflect each of the four dimensions. Thus, we chose to exclude them from the comparative analysis.

On the other hand, the scale developed by Baldus et al. (2015) follows strictly the multiple steps for the scale development, besides showing high reliability, convergent and discriminant validity. With 11 dimensions (brand influence, brand passion, connecting, helping, like-minded discussion, hedonic rewards, utilitarian rewards, seeking assistance, self-expression, up-to-date information, validation) and 42 items, the scale focuses on motivational aspects of brand community engagement. Although this scale could be adapted, we decided not to keep it in the analysis because it would require a great adjustment of the items (focuses on motivational aspects).

Finally, after discussing the selection of the scales listed (step 1 in the comparative analysis of measures), in the next section we present the methodological aspects, in which we also describe the steps for standardization and analysis of the scales.

3.3. Method

3.3.1. Sample

An online survey was administered to replicate and compare the selected scales. We are interested in people who interact with brands through Facebook in Brazil, the most popular and used social media in the country. We checked if the respondents were frequent users of social media and we asked them to indicate the brand that most interacted with.

3.3.2. Measures

Following the procedure for comparative analysis of measures, as discussed previously, the selected scales (step 1) were those of Hollebeek et al. (2014), Vivek et al. (2014), and Dessart et al. (2016). For standardization purposes (step 2), we replicate these scales to measure brand engagement (object) in social media (context). This object and context were the most analyzed by previous researches, besides that the three selected scales analyzed brands in social media. Originally, Vivek et al. (2014) scale was not applied in this context, but it was replicated with brands on Facebook and Instagram (see Aragon, 2016).

The three validated scales were translated to Portuguese following a collaborative and interactive approach to instrument translation (Douglas & Craig, 2007). Two marketing professors with experience in English-speaking country translate the scales, and then they argued with an adjudicator to solve conflicting translations and to adapt the scales to the same object and context (see Appendix 5).

Although the scales of Hollebeek et al. (2014) and Dessart et al. (2016) have been developed using 7-point Likert scales, we follow Vivek et al. (2014) and prefer to replicate the three scales using 5-point Likert scales anchored in ‘strongly disagree’ (1) to ‘strongly agree’ (5) to reduce

the effort of the respondents. Since the items in the three scales have a certain proximity because they measure the same construct, we prefer to use fewer points to avoid greater efforts of the respondents to judge 42 items.

To compare the three consumer engagement scales (step 3) that have been selected, we consider the indices of the Classical Test Theory (CTT) and Item Response Theory (IRT) to evaluate these instruments, detailed in the following sections.

3.3.3. *Analyzes by CTT*

To analyze the scales through CTT, we check the internal construct reliability, indicating the adequacy of the set of items, the convergent (i.e., indicator that the items of the same construct should be highly correlated) and discriminant validity (i.e., indicator that different constructs should not be highly correlated). We followed Fornell and Larcker (1981) to test for the composite reliability, convergent and discriminant validity.

We performed the confirmatory factorial analysis (CFA) employing covariance-based Structural Equation Modelling (CB-SEM) using Amos 22.0 software. The model fit indices we considered were chi-square per degree of freedom ($\chi^2/df < 5.0$), GFI ($> .90$), TLI ($> .95$), CFI ($> .95$) and RMSEA (close to .06) (Hair, Black, Babin, & Anderson, 2009; Hu & Bentler, 1999).

The Harman single factor test was used to check for the existence of common method variance. If more than 50% of the data variance corresponds to the first factor extracted in the exploratory factor analysis, the responses were affected by the collection instrument (Podsakoff & Organ, 1986).

While these procedures are widely used, IRT testing is not so common in marketing (e.g., De Jong, Steenkamp, Fox, & Baumgartner, 2008), specially for polytomous items and for multidimensional scales, called multidimensional item response theory (MIRT). So, we did a brief introduction before explaining the procedures for analysis.

3.3.4. *Item Response Theory (IRT)*

Widely used in education, the IRT is used to evaluate two parameters: the degree of difficulty (β) and discrimination (α) of each item, being a method to empirically evaluate the item and the latent trait (θ). More common in the area of education, some studies include a third parameter that represents guessing (c), but we do not use this parameter in this research.

More specifically, the parameter β indicates the amount of the latent trait necessary to have a probability of .5 of endorsing the item or of making an extreme response on item (De Jong et al., 2008). In other words, represents the inflection point below which there is a higher probability of responding ‘no’ or ‘strongly disagree’, and above is more likely to respond ‘yes’ or ‘strongly agree’. Items with negative β are easier, while positive ones are more difficult.

While dichotomous scales present only one β parameter, polytomous items are represented by many parameters d , called the intercept parameter. This d -parameter is not a difficulty parameter in the usual sense because it does not only indicate the difficulty of the item. Although the interpretation of d is difficult to explain, based on the formula presented by Reckase (2009): $\beta = -d / \sqrt{\alpha\alpha'}$, we can state that the difficulty of the item has an inverse relation with the parameter d . That is, items with positive d 's near the midpoint of the latent variable are easier, while negative ones are more difficult.

The parameter represents the degree to which an item can differentiate between people with similar levels of the same latent trait (Webster & Jonason, 2013), that is, how good the item is in discriminating respondents. The higher its value, the better the item discriminates around the point where the probability of endorsing the item is .5, representing the slope of the characteristic curve at this point.

As the latent trait (θ) has mean = 0 and a standard deviation = 1, the discrimination should always consider the mean and standard deviation of the item. For example, if an item has a high mean and low standard deviation, even a respondent with $\theta = -2$ indicates a high degree of agreement with the item.

Reflecting a set of models, one of the challenges in using IRT is in defining the model to be used. For example, among the various models, the graduated response model developed by

Samejima (1969) is among the most common and is used to analyze one-dimensional, polytomous and ordinals scales. The model of Bock (1972), on the other hand, it is used for one-dimensional, not cumulative and dichotomous scales (Bock & Zimowski, 1997).

Considering that the three selected consumer engagement scales were analyzed with two-parameter models, with polytomous items, multidimensional, confirmatory and compensatory latent trait, we follow Reckase (2009). Accordingly, we analyze the difficulty (β) and discrimination (α) parameters for each item, that scales have more than two points (5-point Likert scales), two or more dimensions, tested according to CFA, and the latent traits interact such that a deficiency in one trait can be compensated for by an increase in the other (Bolt & Lall, 2003).

Among the various consumer engagement scales listed, the unique that was evaluated by IRT was developed by Vivek et al. (2014). Originally, the authors validated the scale by CTT, but Lourenço (2016) replicated the study using IRT to assess the scale. As a result, the author found that scale has low power to discriminate individuals and that items have low levels of information. However, these results can be questioned because the chosen model is used for one-dimensional scales, while Vivek et al. (2014) validated the scale with three dimensions.

3.3.5. Analyzes by *MIRT*

Since the scales used have ordinal polytomous items (5-point Likert scale), we analyze these items with the graded response model (GRM; Samejima, 1969). Besides being the most used IRT model for polytomous response data, this model also applies to multi-one-dimensional scales (Kuo & Sheng, 2016).

Concerning the parameter estimation methods, Cai (2010) proposed the Metropolis–Hastings Robbins–Monro (MH-RM) algorithm for maximum likelihood estimation and showed its advantages compared to other methods when the dimensionality is high (Cai, 2008; 2010). As the analyzed scales have three or more dimensions, we used MH-RM as parameter estimation method.

We used the R software and the MIRT package to analyze the parameters of the items and their respective factor loads. Also, we use plots of item characteristic curves (ICC) and item

information functions (IIF). The parameters of difficulty and discrimination of the item are directly related to the ICCs. While the difficulty parameter (β) indicates the value of θ that corresponds to the point of steepest slope for the ICC, the discrimination parameter (α) is related to this slope of the steepest point (Reckase, 2009). On the other hand, the IIFs show how much an item provides information for respondents with a certain trait. The higher the total information to a given trait, the lower the standard error and better the item captures information for that level of trait (Raykov & Calantone 2014).

3.3.6. Pretest

We prepared a pretest on Qualtrics (see Appendix 6) and sent the link to a small sample of Vidi Shoppers database, one of the main and most representative online database of consumers in Brazil. Respondents were instructed to cite the brand they had most interacted with and were asked to indicate their degree of agreement with a series of statements.

With 66 valid answers, the majority of the respondents were women (57.6%), single (57,6%), with higher education level (28.8% complete and 31.8% incomplete), income between R\$ 1,760.01 and R\$ 3,520.00 (30,3%) and with a mean age of 31.5 (8.8). Of the 48 brands cited, the majority belonged to sectors such as technology, sports, media and retail, and the average engagement (considering the 42 items) was 3.11, slightly above the midpoint.

In unifactorial analysis we found that only 1 item had low commonality and the AVEs of each dimension ranged between .66 and .78. In addition to small textual adjustments, only two items of the Dessart et al. (2016) and one item of the scale of Hollebeek et al. (2014) had major changes for our final survey.

3.4. Results and discussion

3.4.1. Sample description

Of the 689 who accessed our questionnaire, only 387 responded completely. Of these, we excluded respondents who indicated the same degree of agreement for most items, who answered the questionnaire very quickly, or did not answer the questions to check the attention

as expected. At the end of this process, remaining 233 valid questionnaires.

The majority of respondents were women (63.1%), married (53.2%), with higher education level (34.8% complete and 23.2% incomplete), income between R\$ 3,520.01 and R\$ 8,800.00 (36.1%) and with a mean age of 38.5 (10.3). Of the 153 brands mentioned, the most frequent were in sectors such as media, technology, football clubs, automotive and sports.

Regarding the descriptive statistics of the items of the scales (Table 3.3), the overall engagement (with all 42 items) was 3.26 (standard deviation of 1.30), slightly above the midpoint of the scale. Separately, the scale of Hollebeek et al. (2014) had the highest average engagement (3.50). It is interesting to note that the scale of Vivek et al. (2014) and Hollebeek et al. (2014) presented higher means for the cognitive dimensions (3.71 and 3.66, respectively), different from the scales of Dessart et al. (2016), who had the lowest means for cognitive engagement (2.71), and higher for affective dimension (3.56).

3.4.2. Results by CTT

Before the analyzes, we checked the common method variance by exploratory factor analysis with the 42 items of the three engagement scales. Following literature (Podsakoff & Organ, 1986), we discard the existence of method bias when we verify that the first factor explains less than 50% of the variance.

3.4.2.1. Dessart et al. (2016) scale

Through Amos Graphics 22 we performed confirmatory factor analysis using maximum likelihood estimation to analyze the model fit indices. Although the results indicate good model fit indices ($\chi^2(188) = 310.019$ ($p < .001$); $\chi^2/df = 1.649$; GFI = .891; TLI = .950; CFI = .959; and RMSEA = .053), The correlations ranged from .69 to .93, with the highest for constructs of the same dimension (Ent-Enj = .93; Att-Abs = .91; Sha-End = .91).

Dessart et al. (2016) consider enthusiasm and enjoyment as affective engagement subdimensions, attention and absorption as cognitive engagement subdimensions, and sharing, learning and endorsing as behavioral engagement subdimensions, treating engagement as a 3rd-order construct.

Table 3.3. Selected scales and descriptive statistics.

Source	Construct	Item	Items description	M	SD
Dessart et al. (2016)	Enthusiasm (<i>affective subdimension</i>)	Ent1	I feel enthusiastic about publications related to [Brand] on Facebook.	3.60	1.18
		Ent2	I am interested in anything related to [Brand] on Facebook.	3.37	1.26
		Ent3	Publications related to [Brand] on Facebook arouse my interest.	4.07	0.96
	Enjoyment (<i>affective subdimension</i>)	Enj1	When interacting with publications related to [Brand] on Facebook, I feel happy.	3.38	1.25
		Enj2	I get pleasure from interacting with publications related to [Brand] on Facebook.	3.52	1.17
		Enj3	Interacting with publications related to [Brand] on Facebook is like treat for me.	3.42	1.21
	Attention (<i>cognitive subdimension</i>)	Att1	I spend a lot of time thinking about what I see on Facebook related to [Brand].	2.63	1.33
		Att2	I make time to think about what I see related to [Brand] on Facebook.	3.06	1.32
	Absorption (<i>cognitive subdimension</i>)	Abs1	When interacting with publications related to [Brand] on Facebook, I forget everything else around me.	2.14	1.25
		Abs2	Time flies when I am interacting with publications related to [Brand] on Facebook.	2.98	1.34
		Abs3	When I am interacting with publications related to [Brand] on Facebook, I get carried away.	2.85	1.32
		Abs4	When interacting with publications related to [Brand] on Facebook, it is difficult to detach myself.	2.59	1.31
	Sharing (<i>behavioral subdimension</i>)	Sha1	I share my ideas regarding [Brand] on Facebook.	3.21	1.32
		Sha2	I share interesting content related to [Brand] on Facebook.	3.61	1.28
		Sha3	I help [Brand] on Facebook.	3.11	1.27
	Learning (<i>behavioral subdimension</i>)	Lea1	I ask questions related to [Brand] on Facebook.	3.00	1.33
		Lea2	I seek information related to [Brand] on Facebook.	3.63	1.20
		Lea3	I seek help related to [Brand] on Facebook.	3.09	1.31
	Endorsing (<i>behavioral subdimension</i>)	End1	I promote [Brand] on Facebook.	3.51	1.25
		End2	I try to convince other to like [Brand] on Facebook.	2.70	1.42
		End3	I actively defend [Brand] on Facebook from its critics.	2.79	1.37
		End4	I say positive things about [Brand] on Facebook to other people.	3.55	1.28
Hollebeek et al. (2014)	Affection	Aff1	I feel very positive when I see something related to [Brand] on Facebook.	3.40	1.17
		Aff2	Seeing something related to [Brand] on Facebook makes me happy.	3.53	1.13
		Aff3	I feel good when I see something related to [Brand] on Facebook.	3.50	1.12
		Aff4	I am proud when I see something related to [Brand] on Facebook.	3.31	1.23
	Cognitive Processing	CP1	Seeing something related to [Brand] on Facebook makes me think about it.	3.85	1.06
		CP2	I think about [Brand] a lot when I see something related to it on Facebook.	3.43	1.18
		CP3	Seeing something related to [Brand] on Facebook stimulates my interest to learn more about it.	3.69	1.13
	Activation	Act1	I spend a lot of time interacting with publications related to [Brand] on Facebook, compared to competing brands.	3.17	1.27
		Act2	I usually interact with publications related to [Brand] whenever I want similar products / services on Facebook.	3.47	1.21
		Act3	Publications related to [Brand] is one of the brands that I usually interact for products / services of the same gender on Facebook.	3.60	1.14
Vivek et al. (2014)	Enthusied Participation	EP1	I spend a lot of my discretionary time [brand].	2.67	1.28
		EP2	I am heavily into [brand].	3.17	1.27
		EP3	I am passionate about [brand].	3.21	1.32
		EP4	My days would not be the same without [brand].	2.17	1.29
	Conscious Attention	CA1	Anything related to [brand] grabs my attention.	3.72	1.09
		CA2	I like to learn more about [brand].	3.60	1.11
		CA3	I pay a lot of attention to anything about [brand].	3.80	1.04
	Social Connection	SC1	I love [brand] with my friends.	3.27	1.24
		SC2	I enjoy [brand] more when I am with others.	3.31	1.22
		SC3	[brand] is more fun when other people around me do it too.	3.40	1.19

Notes — M = mean; SD = standard deviation.

Reviewing the results of the authors, we noticed that they also had problems of discrimination when performing EFA among pairs of the same dimension. For example, following Fornell and Larcker (1981) they found no discriminant validity between subdimensions of affective and cognitive engagement. Another similar result was that the authors' CFA also indicated a good adjustment index of the model. The authors do not report the correlation between constructs and do not report how many pairs of constructs have discriminant validity by Fornell and Larcker (1981) and use the chi-square difference test (Bagozzi & Phillips, 1982) for additional discriminant validity.

According to Table 3.4, we have verified composite reliability (between .70 and .88) and AVEs (between .52 and .66), indicating the reliability and convergent validity of the constructs. However, following Fornell and Larcker (1981) we only find discriminant validity for 7 of the 21 possible pairs of constructs. The other 14 pairs only have discriminant validity ($p < .05$) by chi-square difference test (Bagozzi & Phillips, 1982).

As Dessart et al. (2016) also had problems of discrimination between subdimensions of the constructs, in addition to the original scale with seven dimensions, we propose to test a reduced scale of Dessart et al. (2016) with eleven items and the three dimensions of 2nd order: affective (Ent1, Ent1-3), cognitive (Abs1-4) and behavioral (Lea1-3) dimensions.

Table 3.4. Results of the Dessart et al. (2016) scale.

Results	<u>Dessart et al. (2017) scale</u>							<u>Dessart reduced scale</u>		
	Ent	Enj	Att	Abs	Sha	Lea	End	Aff	Cog	Beh
Mean	3.68	3.44	2.84	2.64	3.31	3.24	3.02	3.48	2.64	3.24
Standard Deviation	1.17	1.21	1.34	1.34	1.31	1.31	1.37	1.20	1.34	1.31
Composite Reliability	.78	.85	.70	.88	.82	.78	.81	.88	.88	.78
Average Variance Extracted	.54	.66	.52	.64	.60	.54	.52	.65	.64	.63
Model fit indices										
χ^2/df				1.649					1.602	
GFI				.891					.951	
TLI				.950					.977	
CFI				.959					.983	
RMSEA				.053					.501	

With this reduced scale (see Table 3.4) we found excellent model fit indices: $\chi^2 (41) = 65.700$ ($p = .008$); $\chi^2/df = 1.602$; GFI = .951; TLI = .977; CFI = .983; and RMSEA = .051, in addition to high composite reliability (between .78 and .88) and AVEs (between .63 and .65), indicating reliability and convergent validity. According to Figure 3.1, higher factor loading and lower

correlations between constructs resulted in discriminant validity of the constructs (Fornell & Larcker, 1981).

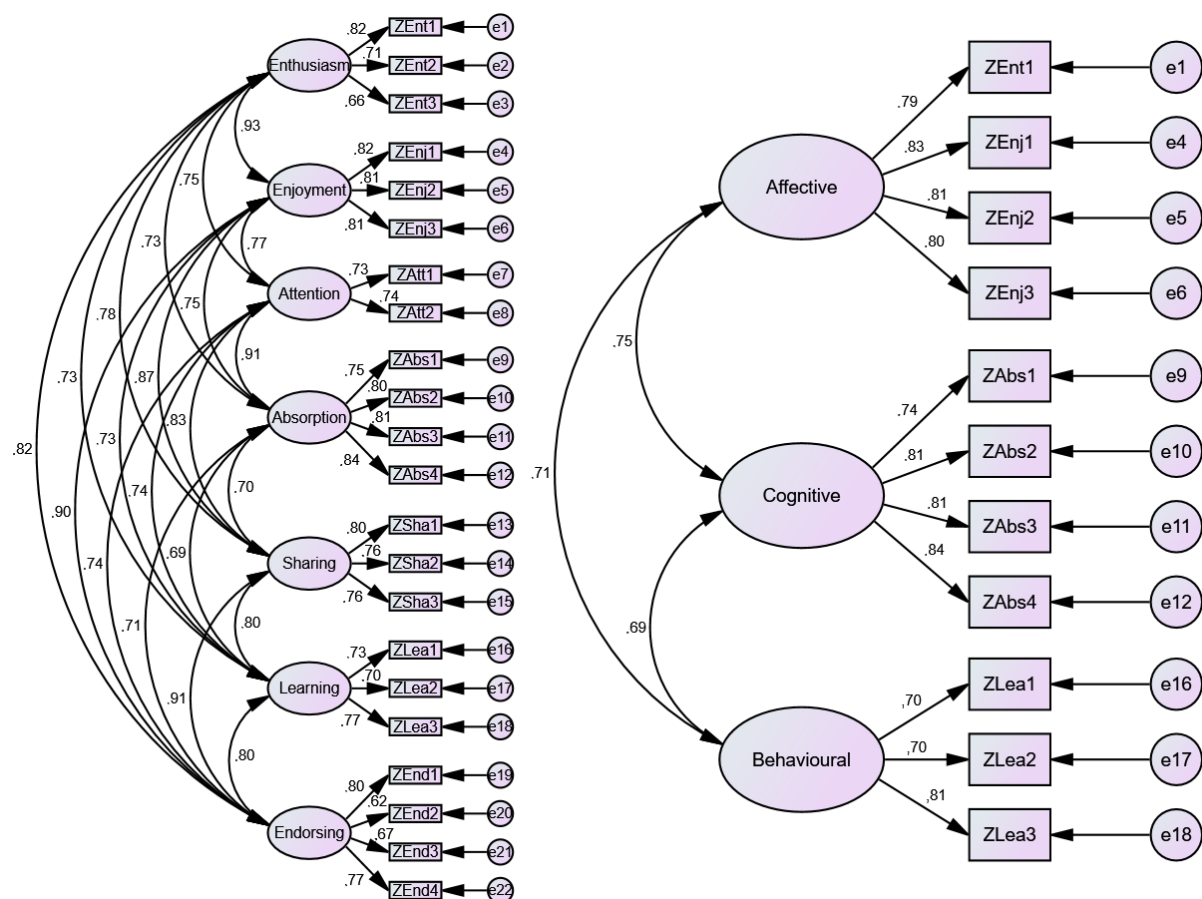


Figure 3.1. CFAs of the Dessart et al. (2016) scale (right side) and a reduced scale (left side).

3.4.2.2. *Hollebeek et al. (2014) scale*

The CFA of the Hollebeek et al. (2014) also presented good fit indices ($\chi^2(32) = 66.162$ ($p < .001$); $\chi^2/df = 2.068$; GFI = .947; TLI = .964; CFI = .975; and RMSEA = .068), but again the correlations were very high, varying between .81 and .98.

As the scale of Dessart et al. (2016), our results show that the Hollebeek et al. (2014) scale showed high composite reliability (between .76 and .89) and convergent validity (between .51 and .68), but did not have discriminant validity among the three pairs of constructs (Fornell & Larcker, 1981). Even when we analyze the chi-square variation by degrees of freedom variation (Bagozzi & Phillips, 1982), there is no discrimination between cognitive processing and

affective dimensions ($p = .28$). According to the results of Hollebeek et al. (2014), we found that they also found no discrimination between cognitive processing and affection, using Bagozzi and Phillips (1982) to show discriminant validity.

As a solution, we excluded two items (CP3 and Act1) that reduced the correlations between constructs. As a result (Table 3.5), in addition to the excellent model fit indices ($\chi^2(17) = 20.169$ ($p < .001$); $\chi^2/df = 1.186$; GFI = .978; TLI = .995; CFI = .997; and RMSEA = .028), the scale presented high composite reliability (between .72 and .89), convergent (AVE between .56 and .67) and discriminant validity between affection and activation (Fornell & Larcker, 1981).

Table 3.5. Results of the Hollebeek et al. (2014) scale.

Results	Affection	Cognitive processing	Activation
Mean	3.44	3.64	3.53
Standard Deviation	1.16	1.14	1.17
Composite Reliability	.89	.72	.73
Average Variance Extracted	.67	.56	.57
Model fit indices			
χ^2/df		1.186	
GFI		.978	
TLI		.995	
CFI		.997	
RMSEA		.028	

Like the authors, we also use Bagozzi and Phillips (1982) for the discriminant validity of cognitive processing with affection ($p = .027$) and activation dimensions ($p < .001$). Figure 3.2 shows the factor loads and correlation between construct dimensions.

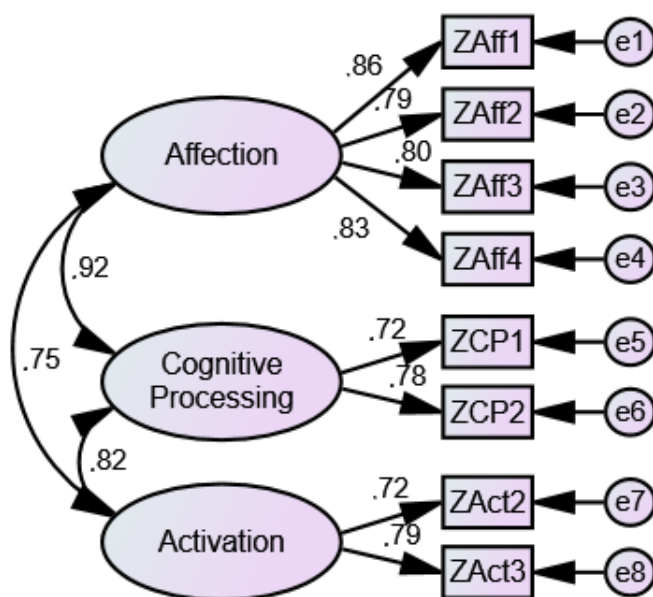


Figure 3.2. CFA of the Hollebeek et al. (2014) scale.

3.4.2.3. Vivek et al. (2014) scale

Finally, the CFA of the Vivek et al. (2014) scale was the one that initially had the lowest model fit indices ($\chi^2 (32) = 113.245$ ($p < .001$); $\chi^2/df = 3.539$; GFI = .910; TLI = .911; CFI = .937; and RMSEA = .105), and there is no discriminant validity between conscious attention and enthused participation, despite high composite reliability (between .81 and .84) and AVEs (between .58 and .63).

According to the results of Vivek et al. (2014), no problems were found concerning the model fit indices, reliability, convergent or discriminant validity. In both study 2 (Apple products) and study 3 (retail), Vivek et al. (2014) found good adjustments for the scale.

In order to improve the model fit indices and discriminant validity, we excluded EP2 and EP3, which were highly correlated with the conscious attention dimension. As a result, the CFA of the scale presented excellent indexes of adjustments ($\chi^2 (17) = 24.942$ ($p = .096$); $\chi^2/df = 1.467$; GFI = .974; TLI = .984; CFI = .990; and RMSEA = .045). We also verified the composite reliability (between .76 and .84) and convergent validity (AVEs between .59 and .63) of the scale, as detailed in Table 3.6.

Table 3.6. Results of the Vivek et al. (2014) scale.

Results	Enthused participation	Conscious attention	Social connection
Mean	2.42	3.71	3.33
Standard Deviation	1.31	1.08	1.22
Composite Reliability	.76	.81	.84
Average Variance Extracted	.62	.59	.63
Model fit indices			
χ^2/df		1.467	
GFI		.974	
TLI		.984	
CFI		.990	
RMSEA		.045	

Finally, the exclusion of the two items reduced the correlation between conscious attention and enthused participation dimensions, resulting in the discriminant validity between the three pairs of constructs (Fornell & Larcker, 1981), implicit in the results of the CFA in Figure 3.3.

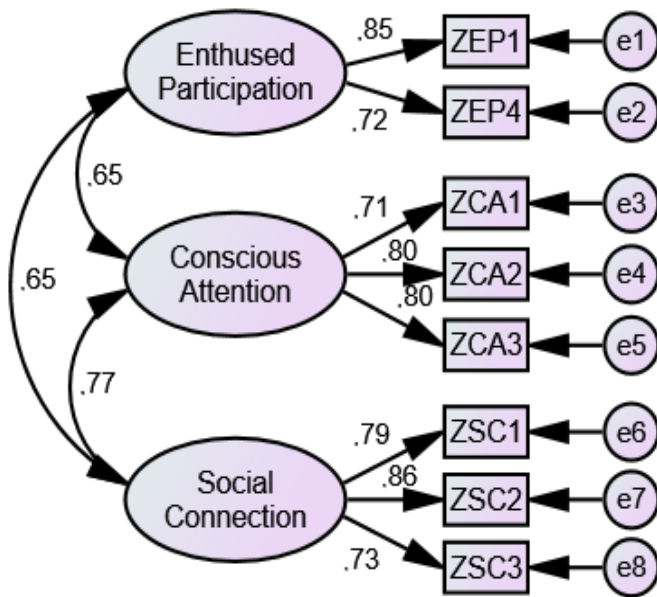


Figure 3.3. CFA of the Vivek et al. (2014) scale.

3.4.3. Results by MIRT

We now use the scales resulting from the analyzes by CTT to analyze through the IRT. Besides the three selected scales, we also analyze the reduced scale of Dessart.

3.4.3.1. Dessart et al. (2016) scale

Initially, we analyzed the scale of Dessart et al. (2016) as developed by the authors, with 22 items and seven dimensions. As shown in Table 3.7, by MIRT we verified high factor loads (between .72 and .93), which in turn result in good average variance extracted.

Regarding the discrimination parameters (α), each item varied between 1.77 and 4.38, suggesting that the items adequately discriminate people along their respective latent trait (Webster & Jonason, 2013).

As stated above, parameter d is associated with the difficulty parameter (β) but with inverted signal, showing the degree of ease of the item, in which the presence of negative values near the center point of the scale (between $d2$ and $d3$) represents greater difficulty of the item. Our results showed that affective (enthusiasm and enjoyment) and behavioral (sharing, learning and

endorsing) dimensions were easier, while the cognitive (attention and absorption) constructs were more difficult.

Table 3.7. Factor loading and parameter estimation of the Dessart et al. (2016) scale by MIRT.

Dimension & Item	FL	α	d_1	d_2	d_3	d_4
<i>Enthusiasm</i>	AVE = .646					
Ent1	0.826	2.496	4.095	3.166	1.025	-2.173
Ent2	0.795	2.227	3.387	2.112	0.166	-2.156
Ent3	0.791	2.197	5.074	4.235	2.528	-0.998
<i>Enjoyment</i>	AVE = .758					
Enj1	0.932	4.382	5.188	3.803	0.163	-3.926
Enj2	0.867	2.961	4.328	3.328	0.668	-2.792
Enj3	0.809	2.340	3.578	2.565	0.180	-2.465
<i>Attention</i>	AVE = .650					
Att1	0.838	2.609	1.825	0.010	-1.623	-4.166
Att2	0.774	2.078	2.273	1.166	-0.579	-2.955
<i>Absorption</i>	AVE = .756					
Abs1	0.832	2.551	0.586	-1.156	-2.631	-5.301
Abs2	0.877	3.101	2.711	1.546	-0.774	-3.969
Abs3	0.878	3.122	2.481	1.193	-1.081	-4.424
Abs4	0.889	3.310	2.125	0.444	-1.998	-4.956
<i>Sharing</i>	AVE = .689					
Sha1	0.888	3.286	3.703	2.139	0.157	-3.528
Sha2	0.871	3.021	4.078	3.144	1.285	-2.041
Sha3	0.721	1.770	2.429	1.587	-0.548	-2.516
<i>Learning</i>	AVE = .659					
Lea1	0.726	1.799	2.13	0.836	-0.549	-2.583
Lea2	0.780	2.121	3.521	2.447	0.991	-1.933
Lea3	0.917	3.926	3.873	1.984	-0.662	-4.504
<i>Endorsing</i>	AVE = .642					
End1	0.864	2.917	3.773	2.784	0.548	-2.519
End2	0.731	1.824	1.073	0.378	-0.985	-3.005
End3	0.726	1.795	1.417	0.471	-1.217	-2.848
End4	0.872	3.036	4.098	2.541	0.669	-2.149

Notes — FL = factor loading; α = discriminant parameter; d = intercept parameter; AVE = average variance extracted.

As discussed earlier, ICC shows the relationship between the trait of interest (θ) and the probability of endorsing, agreeing or responding positively to an item (Raykov & Calantone, 2014). As the parameters are very related to characteristic curve of items, in Figure 3.4 it is possible to notice that the greater difficulty of the items of the cognitive dimensions (attention and absorption).

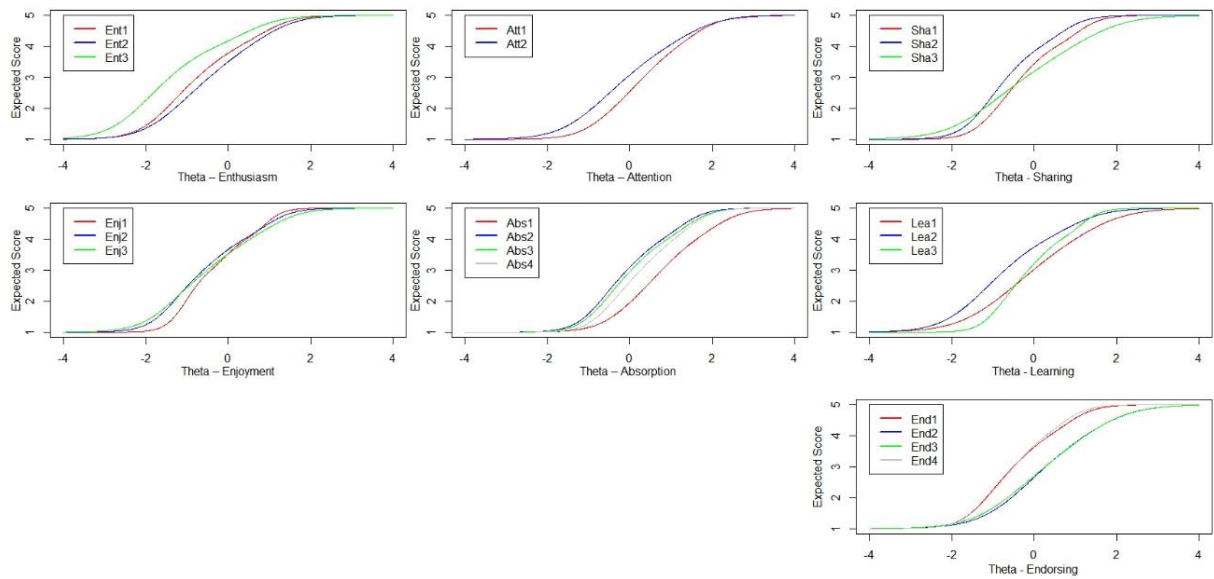


Figure 3.4. ICCs of the Dessart et al. (2016) scale.

In relation to item information functions (IIF), the higher the curve for specific trace level, the better the item discriminates individuals and the smaller the standard error (Raykov & Calantone, 2014). In addition, the level of item information is related to the concept of reliability in CTT, differing because in the IRT it varies along the trait (Singh, 2004). As can be seen in Figure 3.5 some items are better than others in capturing respondents' information. For example, the item Sha3 is the one that captures less information from the respondents at almost any trace level, while the item Enj1 great power to discriminate moderately engaged individuals.

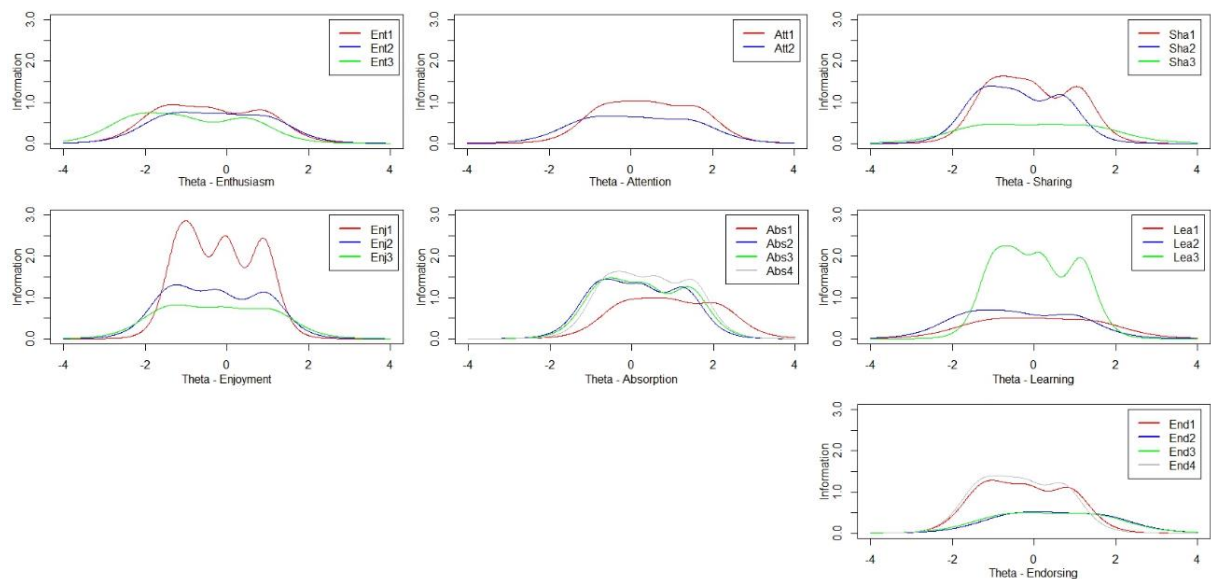


Figure 3.5. IIFs of the Dessart et al. (2016) scale.

In general, the items are good for discriminating individuals with intermediate traits ($-2 < \theta < 2$). This means that the scale is not as effective at capturing the characteristics of people with low or high engagement.

Concerning the reduced scale (Table 3.8), we found a good ability to discriminate individuals, presenting α between 1.81 and 3.69. Again, the items of cognitive engagement present greater difficulty, whereas affective engagement was the easiest. In general, we verified higher factor loading and average variance extracted in the reduced scale.

Table 3.8. Factor loading and parameter estimation of the Dessart reduced scale by MIRT.

Dimension & Item	FL	α	d_1	d_2	d_3	d_4
<i>Affective</i>	AVE = .755					
Ent1	0.861	2.884	4.310	3.302	1.059	-2.517
Enj1	0.901	3.529	4.302	3.160	0.147	-3.344
Enj2	0.876	3.086	4.433	3.401	0.697	-2.932
Enj3	0.838	2.611	3.809	2.733	0.218	-2.694
<i>Cognitive</i>	AVE = .747					
Abs1	0.823	2.464	0.475	-1.245	-2.705	-5.372
Abs2	0.880	3.157	2.652	1.465	-0.921	-4.207
Abs3	0.871	3.023	2.321	1.052	-1.196	-4.507
Abs4	0.882	3.185	1.951	0.306	-2.074	-5.017
<i>Behavioral</i>	AVE = .655					
Lea1	0.729	1.814	2.139	0.835	-0.568	-2.619
Lea2	0.781	2.125	3.524	2.444	0.981	-1.950
Lea3	0.908	3.688	3.677	1.849	-0.665	-4.288

Notes — FL = factor loading; α = discriminant parameter; d = intercept parameter; AVE = average variance extracted.

Regarding the ICC and IIF (Figure 3.6), Regarding CHF and IIF (Figure 3.6), we confirmed the scale quality in capturing information from moderately engaged individuals. Of the 11 items, only Lea1 and Lea2 capture less information from respondents at almost any trace level.

3.4.3.2. *Hollebeek et al. (2014) scale*

The scale of Hollebeek et al. (2014) was analyzed by MIRT without items CP3 and Act1, deleted by CTT. However, these items also did not present a large amount of information to discriminate respondents.

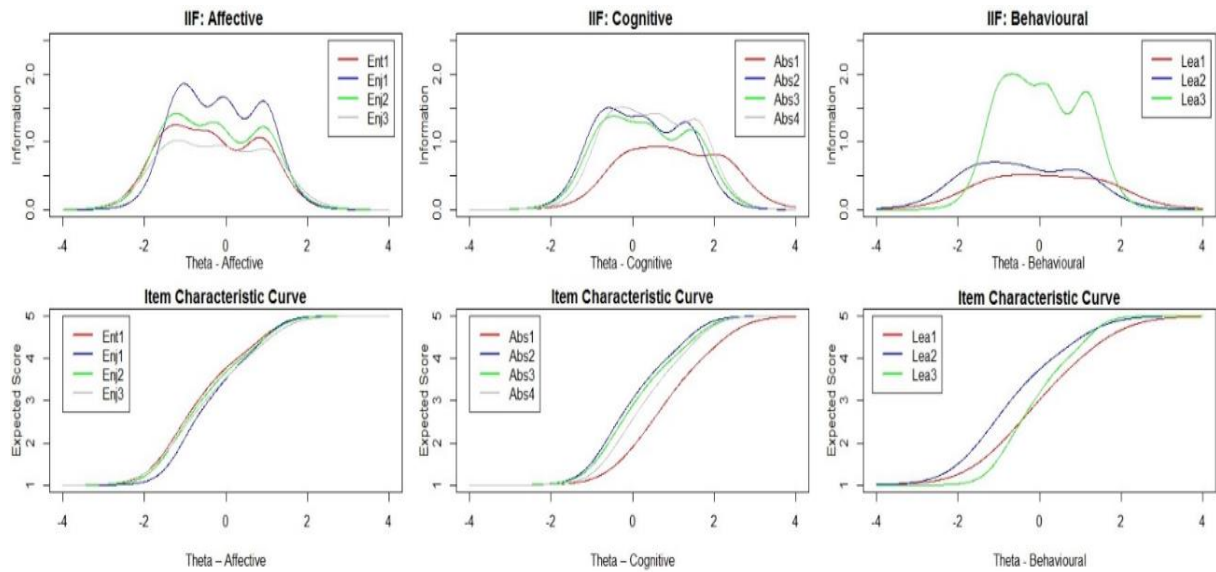


Figure 3.6. ICCs and IIFs of the Dessart reduced scale.

According to results presented in Table 3.9, all items presented a high factor loading (between .77 and .90), which resulted in a high average variance extracted (between .63 and .79). Again, the scale presented high power of discrimination, with α between 1.72 and 3.92, and easier items, especially for cognitive processing and activation dimensions.

Table 3.9. Factor loading and parameter estimation of the Hollebeek et al. (2014) scale by MIRT.

Dimension & Item	FL	α	d_1	d_2	d_3	d_4
<i>Affection</i>	AVE = .788					
Aff1	0.901	3.530	4.785	3.191	-0.023	-3.411
Aff2	0.860	2.864	4.523	3.177	0.350	-2.653
Aff3	0.881	3.174	4.756	3.595	0.200	-2.980
Aff4	0.908	3.692	4.395	3.020	-0.646	-3.369
<i>Cognitive Processing</i>	AVE = .674					
CP1	0.917	3.918	6.531	5.786	2.292	-2.437
CP2	0.712	1.725	3.191	2.138	0.274	-2.171
<i>Activation</i>	AVE = .635					
Act2	0.818	2.416	3.770	2.394	0.437	-2.573
Act3	0.775	2.084	4.154	2.595	0.512	-1.962

Notes — FL = factor loading; α = discriminant parameter; d = intercept parameter; AVE = average variance extracted.

Regarding the amount of information, Figure 3.7 shows that the items of the affective dimension have a greater capacity to capture the trait of the respondents, especially for individuals with an average level of engagement. On the other hand, items such as CP2, Act2 and Act3 have less ability to capture the trait of respondents.

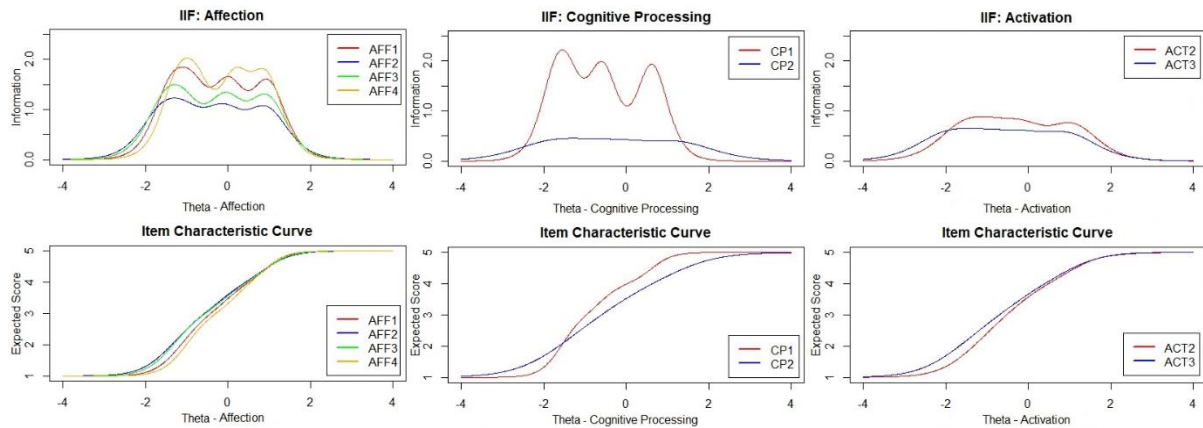


Figure 3.7. ICCs and IIFs of the Hollebeek et al. (2014) scale.

3.4.3.3. Vivek et al. (2014) scale

Finally, the scale of Vivek et al. (2014) was also analyzed without items EP2 and EP3, although they have shown a good ability to capture information and discriminate individuals with medium traits.

As a result (see Table 3.10), the factor loading (between .79 and .92) and average variance extracted (between .70 and .74) were high. Compared with the other scales, the items of this one showed better power of discrimination, with α varying between 2.2 and 4.12. The items also presented different levels of difficulty, in which the most difficult were the items of enthusiastic participation dimension, and the easier were items of the conscious attention dimension.

Table 3.10. Factor loading and parameter estimation of the Vivek et al. (2014) scale by MIRT.

Dimension & Item	FL	α	d_1	d_2	d_3	d_4
<i>Enthusiastic Participation</i>	AVE = .711					
EP1	0.883	3.207	2.477	0.219	-1.894	-5.291
EP4	0.801	2.280	0.269	-0.811	-2.620	-4.452
<i>Conscious Attention</i>	AVE = .704					
CA1	0.826	2.497	4.635	3.484	1.288	-2.117
CA2	0.812	2.372	4.379	3.086	0.725	-2.254
CA3	0.877	3.111	6.037	4.571	1.548	-2.011
<i>Social Connection</i>	AVE = .740					
SC1	0.861	2.885	3.583	2.291	-0.344	-3.063
SC2	0.924	4.117	4.824	3.344	-0.027	-4.343
SC3	0.790	2.193	3.283	2.436	0.119	-2.549

Notes — FL = factor loading; α = discriminant parameter; d = intercept parameter; AVE = average variance extracted.

Concerning the amount of information that the items capture (Figure 3.8), like the others, the scale of Vivek et al. (2014) also showed to be more adequate to measure people with medium

trait. Items such as CA3, EP1 and especially SC2 can capture more information for individuals with a medium level of engagement.

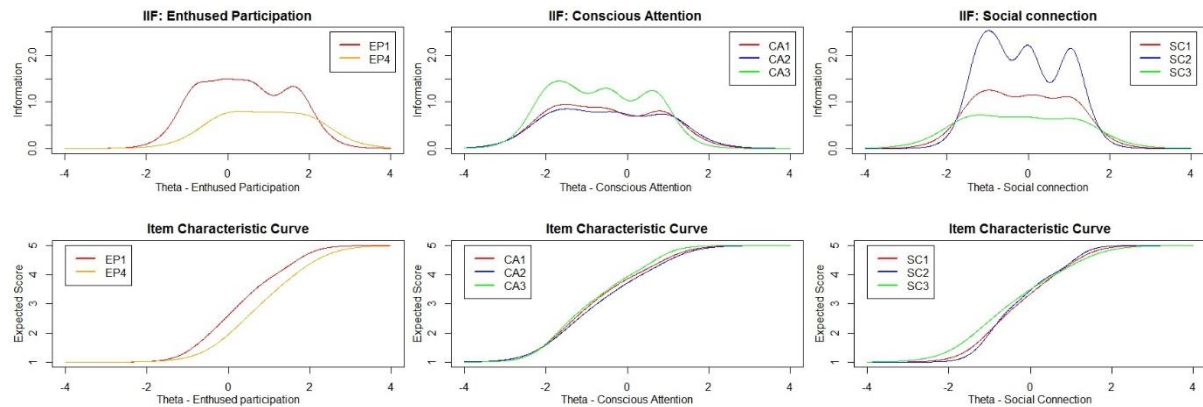


Figure 3.8. ICCs and IIFs of the Vivek et al. (2014) scale.

3.5. Conclusion

In this article, we initially discussed that several researchers had used the idea that engagement varies according to the subject, object, and context in which it is analyzed to create new measures in recent years. However, a lot of released scales complicates the decision of the researchers who want to analyze this construct in empirical studies.

On the other hand, some authors have published scales that work with different objects (Dessart et al., 2016) and contexts (Vivek et al., 2014), showing that the same measure of engagement can be widely used and led us to check this possibility.

Instead of launching a new measure, our aim with this research was to compare some of the main measures and to check the main advantages of each of these scales. After defining consumer engagement as a consumer's positive level of cognitive, emotional and behavioral investment with a focal object, in specific direct or indirect interactions, as there is no established process for scales comparison, another important contribution of our research is methodological: we propose a procedure for selection, standardization, and comparison of measures.

As we have previously suggested, the i) selected scales should have similar characteristics, such as dimensionality, constitutive definition, subject, object and/or context. For example, it makes

no sense to compare a one-dimensional scale that measures employee engagement with a multidimensional scale of consumer engagement. On the other hand, two multidimensional scales of consumer engagement may have different characteristics, in which one can better discriminate highly engaged respondents, while the other can present greater reliability, validity and good model fit indices.

For ii) standardization purposes, our suggestion is to use the selected scales to measure the same subject, object, and context, and applied to the same length (e.g., seven-point Likert scale). Finally, we recommend that these iii) scales be analyzed through the reliability, convergent and discriminant validity of the classical test theory (CTT), but also by item response theory (IRT), analyzing the discrimination, difficulty, and information provided by the items and dimensions.

As a methodological contribution, we hope that this procedure can be replicated to help researchers to choose the most appropriate scale for their study, or serve to justify the development of a new scale when the existing ones do not present a good performance.

Applying these procedures, we selected three scales of consumer engagement among thirteen measures listed: Dessart et al. (2016), Hollebeek et al. (2014) and Vivek et al. (2014); and we standardized them using seven-point Likert scale with consumer as subject, brands as object and social media as context. Using CTT and IRT to analyze these measures, our results showed that both scales have similar characteristics, besides good fit indices, reliability, convergent and discriminant validity by CTT, as well as similar power of discrimination when analyzing the scales through IRT.

However, we found that the Vivek et al. (2014) is more recommended when a better discrimination between the dimensions of the construct is required (Table 3.11). This scale presented higher AVE and a lower correlation between constructs. Another viable option when looking for construct discrimination is the use of the reduced scale of Dessart et al. (2016).

On the other hand, when the priority is to obtain higher reliability and AVE, the Hollebeek et al. (2014) scale may be the best option in situations where the discrimination between constructs is not so important, such as Islam, Rahman, and Hollebeek (2017), who used 8 items of this scale as a one-dimensional measure of engagement with the brand community, or Tarute, Nikou and Gatautis (2017), who used 4 items of Hollebeek et al. (2014) scale for engaging with mobile

applications. Our results, as well as those of the authors, showed problems of discrimination by Fornell and Larcker (1981). Even with higher AVE, the high correlation of the affective dimension with the others weakened the discrimination of the scale.

Table 3.11. Summary of model fit indices, reliability and validity of the scales.

Scale	Dessart	Dessart reduced*	Hollebeek	Vivek
Correlation	.69 to .93	.69 to .75	.75 to .92	.65 to .77
Factor loadings	.62 to .84	.70 to .84	.72 to .86	.71 to .86
CR	.70 to .88	.78 to .88	.72 to .89	.76 to .84
AVE	.52 to .66	.63 to .65	.56 to .67	.59 to .63
Discrimination	7 by Fornell and Larcker (1981) e 14 by Bagozzi and Phillips (1982)	By Fornell and Larcker (1981)	1 by Fornell and Larcker (1981) e 2 by Bagozzi and Phillips (1982)	By Fornell and Larcker (1981)
Model fit indices				
χ^2/df	1.649	1.602	1.186	1.467
GFI	.891	.951	.978	.974
TLI	.950	.977	.995	.984
CFI	.959	.983	.997	.990
RMSEA	.053	.501	.028	.045

Notes — *reduced by authors; CR = composed reliability; AVE = average variance extracted.

Likewise, the scale of Dessart et al. (2016) presented correlations higher than .90 among sub-dimensions of the same construct. These results are also similar to those found by the authors, who did not report the correlation between the constructs. However, as the authors have analyzed the sub-dimensions of cognitive, affective and behavioral engagement, this scale is more indicated when it is desired to evaluate in more detail the interaction of these components with other constructs. For example, because behavioral engagement consists of the sub-dimensions of sharing, learning and endorsing, the researcher or manager who wishes to specifically encourage content sharing or brand promotion through endorsement can specifically analyze one of these subcomponents.

Regarding the use of IRT in the analysis of the scales, we verified that both have items with good power of discrimination. Regarding the difficulty of the items, the scale of Hollebeek et al. (2014) presented a lower degree of difficulty, which means that the respondents need a smaller trait (agreement) to agree on the items of the scales, a result that is confirmed by the greater mean engagement (3.50) when compared to the Vivek (3.23) and Dessart (3.17) scales.

The amount of information captured by the items (related to CTT reliability) of Dessart reduced scale, when compared to the others, showed a better ability to capture information for affective and cognitive dimensions, whereas the scale of Hollebeek et al. (2014) presented the best results

for the affective dimension and the scale of Vivek et al. (2014) was more efficient in the social dimension. Again, these results may be useful for researchers or managers interested in analyzing a specific dimension, or even for the development of new scales that aggregate desired benefits into a single scale.

It is interesting to note that in both scales, the items that involve the behavioral engagement are the ones that present greater difficulty of adjustment. This can be solved by scales such as that of Solem and Pedersen (2016), who used Hollebeek et al. (2014) to measure the emotional, cognitive and behavioral psychometric aspects, besides an effectively behavioral dimension on social media context measured from the like (yes x no) and comment (yes x no) the manipulated post. Future scales could pay more attention to the behavioral dimension and consider specific scales (e.g., Verleye et al., 2014; 2016) to better capture this dimension.

Although the scales were able to capture a lot of information, there was a concentration around the mean ($\theta = 0$). The three scales were better at discriminating individuals with mean trace ($-2 < \theta < 2$), which may be a gap and an opportunity for future studies. As none of the analyzed scales were effective at discriminating poorly or highly engaged individuals, future studies could develop a scale that can better differentiate individuals with low and high trait.

Our results provide a range of options for social media brand practitioners by validating three measures in this context. In analyzing the selected measures, we show managers the specific advantages of each one of the tested scales, making it easier to choose the one that best suits its purpose.

By using three different measures of engagement, we found that in both consumers they tend to have a medium engagement. As a practitioner literature shows that consumers like to interact with brands in social media, this shows a great opportunity for marketers to improve follower engagement.

The respondents also indicated different brands and sectors, which leads us to assume that companies of different types can benefit from consumers engaged in social media, and as a result of this benefit can directly influence sales, improve corporate reputation and engagement with company's activities.

As limitation, in this research we have focused only on the analysis of a small number of scales developed to measure consumer engagement, while more than ten scales have been released in recent years. We expect future research to make new comparisons and employ item response theory, both for analyzing existing scales and developing scales.

As we replicate three scales of consumer engagement toward brands in social media, we cannot generalize our results to other objects and contexts. When researchers need to measure consumer engagement with other objects and contexts, we suggest new comparative analyzes to indicate the scale that best fits the prerequisites of the study.

Finally, the procedures for comparing scales serve to assist in the choice of measures, but should be preceded by a thorough theoretical analysis. Sometimes inadequate scales are used for lack of understanding of the construct or because the researcher did not make the necessary adaptations.

4. CHAPTER 4 – ARTICLE 3

ARTICLE 3:

CONSUMER ENGAGEMENT WITH SPECIFIC BRAND AND AS A GENERAL MEASURE: RELATIONSHIP AND BENEFITS FOR COMPANIES AND CONSUMERS

Abstract

In this article, we jointly analyze two streams of study of engagement in marketing literature: consumer engagement with a specific brand and brand engagement in self-concept (BESC) as a generalized tendency to include brands as a part of the self-concept. More specifically, our objective is to test a nomological network in which BESC represents an antecedent of the consumer engagement, and the latter has consequences for companies (corporate reputation) and consumers (perceived value) in social media. To validate this nomological network, we conducted two studies, one in the United States and one in Brazil, followed by a multigroup analysis to check the cross-cultural group invariance of the structural model. As a result, we showed that BESC is discriminant and an important antecedent of consumer engagement, and that consumers engaged with brand on Facebook generate benefits for companies, improving their corporate reputation, and for consumers, improving their perceived value.

Keywords: brand engagement in self-concept, consumer engagement, corporate reputation, perceived value.

4.1. Introduction

Managers and researches are more concerned with how to best engage consumers (Marbach, Lages, & Nunan, 2016), specially because is a strategic way of looking at customer and stakeholder relationships (Kumar et al., 2010). Besides a real competitive advantage, consumer engagement in social media promotes advantages for consumers and companies (Wirtz et al., 2013).

Previous studies have shown that engagement is a multidimensional construct composed of emotional, cognitive and behavioral aspects (Brodie, Hollebeek, Jurić, & Ilić, 2011; Brodie, Ilić, Jurić, & Hollebeek, 2013; Hollebeek, 2011a; 2011b), and also tested their nomological validity with antecedents as personality traits (Marbach et al., 2016), brand involvement (Hollebeek, Glynn, & Brodie, 2014) or communication channel (Li, Berens, & Maertelaere, 2013), and with consequence as a corporate reputation (Dijkmans, Kerkhof, & Beukeboom, 2015), perceived value (Marbach et al., 2016), self-brand connection and brand usage intent (Hollebeek et al., 2014).

However, most studies have focused on engagement with a specific brand (e.g., Vivek, Beatty, Dalela, & Morgan, 2014), while few studies have analyzed brand engagement as a general measure (Sprott, Czellar, & Spangenberg, 2009) or the relationship between these two types of engagement (Goldsmith & Goldsmith, 2012). Likewise, while social media emerge as one of the main fields of study of consumer engagement, there are no quantitative studies that jointly analyze the benefits to consumers and brands.

Thus, in this research we analyzed the relationship between consumer engagement with a specific brand and brand engagement in self-concept (BESC) as a general measure of engagement. Being a trend to include important brands as part of their self-concept, we considered BESC as an antecedent of specific brand engagement, and we used corporate reputation (Dijkmans et al., 2015) and perceived value (Vivek et al., 2014) as consequence of the model, representing the benefits for brands and consumers respectively.

With the main objective of testing these relationships and validating the proposed theoretical framework, we conducted two surveys, one with Americans and the other with Brazilians. Our findings have shown that the dimensions of consumer engagement with specific brands, conscious attention, enthused participation and social connection, are positively correlated and discriminant of BESC.

Regarding the model, our findings indicated that BESC is an important antecedent of consumer engagement, and the latter has a positive impact on corporate reputation and (directly and indirectly) on perceived value. Employing the multigroup analysis, we also confirmed the

invariance of the models in the path and model level, guaranteeing nomological and cross-cultural validation.

We contribute to the literature by reinforcing theoretical relations, testing our theoretical framework, and especially by proposing and showing that brand engagement, in general, is different and important antecedent to engagement with specific brand. While the former acts as a tendency for people to consider important brands as part of their self-concept, the latter refers to engagement with a single brand.

Managerially, these findings show that marketers and managers could focus their efforts on people with higher levels of BESC for greater engagement with a brand, which in turn improves the corporate reputation and perceived value of consumers.

This research is divided into five other sections. In the following we define the constructs analyzed in this research, followed by hypotheses and theoretical framework. Next, we report the methodological procedures to operationalize the two studies, followed by their respective results and discussions. Finally, we conduct a cross-cultural validation and present the conclusions, limitations and suggestions for future research.

4.2. Literature review

Considering that consumer engagement is one of the most important constructs for analyzing the brand-consumer relationship in social media, in this section we review consumer engagement with specific brands and general engagement. Next, we present the discussion on corporate reputation and perceived value, representing the benefits of companies and consumers, respectively.

4.2.1. Consumer engagement and brand engagement in self-concept (besc)

Consumer engagement has been extensively studied in a number of areas (Brodie et al., 2011; Hollebeek, 2011a; 2011b) such as education (Fredricks, Blumenfeld, & Paris, 2004), psychology (Salanova, Agut & Peiro, 2005), organization (Kahn, 1990) and more recently in marketing (e.g., Algesheimer, Dholakia, & Herrmann, 2005), receiving much attention with the

social, economic and technological changes that also changed the behavior of the consumers (Tarute, Nikou, & Gatautis, 2017).

In marketing and service literature, we highlight studies in contexts such as social media (Schivinski, Christodoulides, & Dabrowski, 2016), retailing (Vivek et al., 2014), services (Jaakkola & Alexander, 2014), with subjects such as employee (Popli & Rizvi, 2015), consumers (Calder, Malthouse, & Schaedel, 2009), and indirect customers (Verleye, Gemmel, & Rangarajan, 2014), and with objects such as brand community (Algesheimer et al., 2005; Baldus, Voorhees, & Calantone, 2015), brand (Hollebeek et al., 2014; Vivek et al., 2014) or both (Dessart, Veloutsou, & Morgan-Thomas, 2016). Because the amplitude of studies on engagement, which varies depending on the subject, object, and context in which it is analyzed (Hollebeek, 2011a), terms as customer engagement and brand engagement reflect the same conceptual scope (Hollebeek et al., 2014).

Initially, the interest in researching consumer engagement showed that some considered cognitive, emotional, or behavioral aspects alone (Hollebeek, 2011a). In a second moment, the combination of two of these elements gained space, until later most of the studies began to add cognitive, affective and behavioral dimensions together (Brodie et al., 2011; Hollebeek, 2011a; 2011b).

Nevertheless, it is possible to verify the coexistence of works that measure engagement as a one-dimensional and multidimensional construct. Researchers who opt for one-dimensional scales have attempted to aggregate cognitive, emotional and behavioral aspects into this single dimension (Thomas, 2007), as well as others replicate multidimensional scales as a one-dimensional construct (Islam, Rahman, & Hollebeek, 2017).

Like most recent studies, we understand consumer engagement as a multidimensional construct, defined as a consumer's positive level of cognitive, emotional and behavioral investment with a focal object (Hollebeek, 2011b; Brodie et al., 2011; Hollebeek et al., 2014), in specific direct (Hollebeek, 2011a) or indirect interactions.

We analyze consumer engagement with brand (object) tags in social media (context) and use the Vivek et al. (2014) as a measure of this construct. According to the authors, the engagement is composed of three dimensions: conscious attention (cognitive aspects), enthused

participation (emotional and behavioral aspects) and social connection. Thus, in addition to the cognitive, emotional and behavioral aspects, this scale also considers social aspects, very important in the context of social media in which the consumer can simultaneously interact with the brand and other people (Kozinets, 2014).

Specifically, conscious attention is the degree of interest the person has in interacting with the focus of engagement, enthused participation is the zealous reactions and feelings of a person related to using or interacting with the focus of engagement, and social connection is the enhancement of the interaction based on the inclusion of others with the focus of engagement (Vivek et al., 2014).

One implication of the definition adopted is that consumer engagement is analyzed with a specific object, for example, brands such as Apple (Vivek et al., 2014), LinkedIn (Hollebeek et al., 2014) or various brands (Dessart et al., 2016). However, there is a theoretical trend that has studied engagement as a general construct, without specifying a brand. This trend emerged with Sprott et al. (2009), who developed brand engagement in self-concept (BESC) scale that captures consumer's overall engagement with brands.

For the authors, BESC is “an individual difference representing consumers’ propensity to include important brands as part of how they view themselves” (p. 92). In addition to developing the scale, Sprott et al. (2009) have shown that the consumer's BESC has effect on the memory links between themselves and favorite brands, have a positive effect on the attention, preference, and loyalty to brands that consumers see as part of themselves.

While Sprott et al. (2009) assume that individuals may include important brands from various product categories as part of their self-concept, Razmus and Laguna (2017) in a study conducted in Poland analyzed 20 product categories and showed that consumers include different product categories as part of the self-concept.

We believe that these two approaches (engagement with a specific brand and global brand engagement) are complementary and non-exclusive. Goldsmith and Goldsmith (2012), for example, measured these two scales in a single study. They used a scale from Keller (2001) to engagement with a specific brand and six items from the scale of Sprott et al. (2009) as global

engagement. As a result, the authors found that in addition to reliability and (convergent and discriminant) validity, scales are positively correlated.

Thus, we propose to jointly analyze the engagement with specific brand, measured by the scale of Vivek et al. (2014), and general brand engagement, measured by the brand engagement in self-concept scale of Sprott et al. (2009).

4.2.2. *Corporate reputation*

Although the study of corporate reputation has emerged and been extensively studied in academia, several measures of the business media seek to rank the most successful companies. For example, since the early 1980's Fortune's 'America's Most Admired Companies' is one of the key corporate reputation measures.

Fortunately, despite being pioneering and receiving updates and being an important benchmark for the market, Fortune's is questioned the lack of methodological rigor and sample bias (Ponzi, Fombrun, & Gardberg, 2011), as well as having a strong financial bias (Brown & Perry, 1994). For example, a Brazilian magazine with a similar methodology indicated companies such as Odebrecht and EBX among the most admired, and a few years later its presidents were arrested and companies involved in what is probably the largest corruption case in the world.

In the marketing literature, the definition of corporate reputation has also been changed. In a conceptual work, Herbig and Milewicz (1993) have highlighted reputation in a historical perspective and by the consistency of actions over time, defining as an “aggregate composite of all previous transactions over the life of the entity, a historical notion, and requires consistency of an entity’s actions over a prolonged time” (p. 18).

After, Weiss, Anderson, and MacInnis (1999) differentiate from image by defining reputation as an “overall judgment regarding the extent to which a firm is held in high esteem or regard” (p. 75). More recently, Walsh and Beatty (2007) kept the idea of general assessment but focused on the consumer, arguing that the literature focused on multiple stakeholder groups (Doney & Cannon, 1997) but largely neglecting end-use customers.

By recognizing the importance of consumers in relation to other stakeholders, we follow the assumption that all stakeholders share similar perceptions of the firm and we use the definition of corporate reputation as the “customer’s overall evaluation of a firm based on his or her reactions to the firm’s goods, services, communication activities, interactions with the firm and/or its representatives or constituencies (such as employees, management, or other customers) and/or known corporate activities” (Walsh & Beatty, 2007, p. 129).

Although consumers have perceptions regarding specific aspects of the company, fairness, quality or good practices, the literature suggests that consumers tend to have a global assessment of the organization, which justifies the use of reputation as a one-dimensional construct (Weiss et al., 1999). Therefore, we analyze corporate reputation through consumers and as a one-dimensional construct.

4.2.3. *Perceived value*

Perceived value is a concept widely studied in the business literature. Nevertheless, its complex nature generates many problems, errors and lack of consensus arising from the different theoretical currents that discuss this construct, especially about its measurement (Sánchez-Fernández & Iniesta-Bonillo, 2007).

As discussed by Sánchez-Fernández and Iniesta-Bonillo (2007), the concepts of perceived value usually implies an interaction between the subject (e.g., consumer) and an object (e.g., brand content on Facebook). While other areas prioritize shareholders or stakeholders, in this research we focus on consumers as subjects because they understand that this is the source of all other values (Salem Khalifa, 2004).

In relation to the object, for example, Yi and Jeon (2003) and Evanschitzky et al. (2012) analyzed the perceived value with loyalty programs, Kim, Kim, and Wachter (2013) studied perceived value of smartphone users, while Vivek et al. (2014) measured perceived value with brands. Just as these surveys have adapted the construct to an object, we measure the perceived value of brand interactions on Facebook.

Zeithaml (1988), in one of the main and most widely used definitions, indicated that perceived value is the “consumer’s overall assessment of the utility of a product based on perceptions of

what is received and what is given” (p. 14). Although most researchers agree that perceived value is a comparison of what a consumer “receives” and “gives” (Parasuraman & Grewal, 2000; Petrick, 2002; Wooddruf, 1997), Zeithaml (1988) focused on products and did not create a measure for the construct.

However, its definition has been extended and used to measure the perceived value of services (Bolton & Drew, 1991), brands (Vivek et al., 2014) and social media such as Facebook (Lee, Yen, & Hsiao, 2014). Thus, perceived value is understood as consumer's overall assessment of the utility of a product, service, brand or brand interaction based on perceptions of what the individual receives and gives.

Sánchez-Fernández and Iniesta-Bonillo (2007) showed in a systematic review of the literature how different currents measured perceived value. On the one hand, price-based studies generally treat it as one-dimensional, whereas approaches based on utilitarian and hedonic values or value hierarchy measure perceived value as a multidimensional construct. Finally, there are still works that use the means-end theory as uni- or multidimensional.

As there is no consensus on multidimensional measurement, whether in terms of which dimensions to use or whether they are formative or reflective constructs (see Costa, 2007; Lin, Sher, & Shih, 2005), despite critiques (Lin et al., 2005; Petrick, 2004) we used a one-dimensional measure of perceived value. In addition to this being the most common form of construct analysis (e.g., Evanschitzky et al., 2012; Kim et al., 2013; Vivek et al., 2014; Yang & Peterson, 2004), there is a greater facility in the quantitative operation of the construct (Costa, 2007).

4.3. Theoretical framework and hypotheses

4.3.1. Relation between consumer engagement with a specific brand and brand engagement in self-concept

As mentioned earlier, the consumer engagement literature indicates that people can engage with specific brands (e.g., Vivek et al., 2014), but also have a propensity to engage with brands in general (e.g., Sprott et al., 2009).

We have found only one published study that analyzes the relationship between these two measures, representing a gap and lack of integration between these two streams. Goldsmith and Goldsmith (2012) conducted an online survey of 366 American students, where they indicated the degree of engagement with the North Face, well-known brand of clothing, through a one-dimensional scale of Keller (2001) as well as the Level of engagement with brands in general by means of 6 of the 8 items of the scale of Sprott et al. (2009).

As a result, the authors found that the constructs were significantly ($p < .05$) and positively (.26) correlated. Although the measures have reliability and (convergence and discrimination) validity, the brand-specific engagement scale of Keller (2001) has some problems, such as multiple objects (brand website, news and merchandise) and a single dimension that includes affective, cognitive and behavioral items, besides Keller (2001) do not detail the development of this measure.

Considering the results of Goldsmith and Goldsmith (2012) and using a multidimensional scale for specific brand engagement, we expect a positive relationship between these dimensions of engagement and brand engagement in self-concept (global brand engagement). Exploratory, we also propose that the measure of general engagement can act as an antecedent of engagement with specific brands. It seems logical to assume that the higher the degree to which consumers incorporate brands as part of their self-concept, the greater the engagement with specific brands. Thus, we hypothesize that:

H1: The dimensions of consumer engagement with a specific brand, conscious attention (H1a), enthused participation (H1b) and social connection (H1c), are positively correlated with brand engagement in self-concept (global brand engagement).

H2: Brand engagement in self-concept (global brand engagement) is positively associated with consumer engagement with a specific brand.

4.3.2. Relation between consumer engagement and corporate reputation

The relationship between consumer engagement and reputation has broad theoretical and empirical support. Alloza (2008) carried out a case study in a large Spanish bank, which

involved 100 focus groups with consumers, shareholders, and employees, and 100 in-depth interviews with directors and opinion leaders, found that employee engagement can help in the process of improving corporate reputation. Similarly, van Doorn et al. (2010) suggest that companies with a high reputation are more likely to generate positive levels of behavioral engagement. In turn, according to the authors, feedback and information provided by engaged customers also improve the corporate reputation.

Among the quantitative studies, Li et al. (2013) found that user engagement has a positive direct effect on corporate reputation, as well as mediating the relationship between channel credibility and corporate reputation. Dijkmans et al. (2015) also found that engagement in company's social media activities have a direct effect on corporate reputation, as well as mediating the relationship of gender, age, customer (yes / no) and intensity of participants' social media use with the corporate reputation. In addition, the interaction between customer and engagement has also shown an effect on reputation, especially among non-customers. Considering these results, we hypothesize that:

H3: Consumer engagement with a specific brand is positively associated with corporate reputation.

4.3.3. Relation between consumer engagement and perceived value

Brodie et al. (2013) have identified that consumer engagement has many outcomes that may result from a level of perceived value co-creation. More recently, Kim et al. (2013) found that engagement motivations have a positive effect on the perceived value of mobile users. According to the authors' results, social and hedonic engagement motivations increase perceived value when using mobile technology.

Finally, Vivek et al. (2014) have proposed different outcomes of customer engagement cross brand and retail context. The authors argue that according to S-D logic (Vargo & Lusch, 2004), customers positively engaged with the organization is likely to increase his/her perceived value, which makes this construct one of the most important outcomes of consumer engagement. Unfortunately, the authors did not use a validated scale to measure the perceived value and the nomological validity was assessed only through the correlation between the constructs. Nevertheless, among the four outcomes tested, the perceived value was the one with the highest

average correlations with the engagement dimensions in brand context, and the second largest correlation in the retail context. Following the literature, we hypothesize that:

H4: Consumer engagement with a specific brand is positively associated with perceived value.

4.3.4. Relation between corporate reputation and perceived value

Some authors who measure perceived value as a multidimensional construct include corporate reputation as a dimension of this construct, such as Petrick (2002). On the other hand, there are those who have analyzed corporate reputation as a consequence of perceived value (Caruana & Ewing, 2010).

Despite this lack of consensus (see De la Fuente Sabaté & De Quevedo Puente, 2003), most of the research that related these constructs generally considers corporate reputation as the antecedent of perceived value. For example, Hansen, Samuelsen, and Silseth (2008) found that corporate reputation had a substantially stronger effect on customer perceived value than the other drivers measured in B2B service relationships.

Cretu and Brodie (2007) also empirically found that company reputation positively influences customer value. Considering these and other studies that have found a positive influence of corporate reputation on perceived value, we finally hypothesize that:

H5: Corporate reputation is positively associated with perceived value.

Except for H1, which proposes the correlation and discrimination between the dimensions of consumer engagement with a specific brand and BESC as a global brand engagement, the other hypotheses are represented in the conceptual model tested in this research (see Figure 4.1).

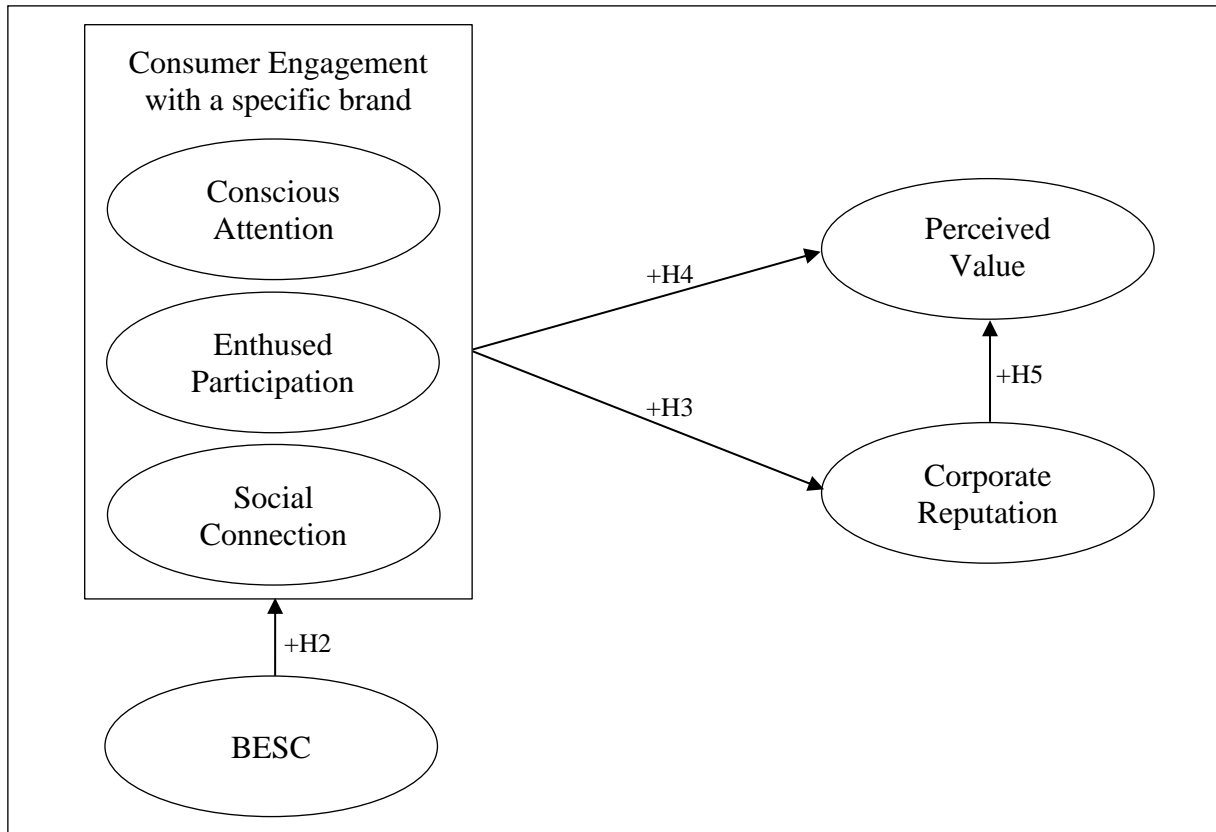


Figure 4.1. Conceptual model.

4.4. Method

To test the hypotheses and check the fit of the conceptual model, we performed two samplings. As the measures used were developed in the American context, we sampled with respondents from the United States. Besides, to increase the generalization potential of the findings, we translated the scales and revalidated the model with Brazilians. Finally, we performed a multigroup analysis to confirm the cross-cultural validity of our model.

4.4.1. Sample

In the first sampling, we used Amazon Mechanical Turk to access American respondents. As filter, we prevented people from other nationalities from viewing and responding to the survey. For a better guarantee, we have inserted questions related to the native language and the country of origin of the respondents. Also, only users with an active profile on Facebook who indicated a brand that used to interact in this space, and those who did not miss any of the attention checks could complete the survey.

In the second sample, we sent the survey through Vidi Shoppers, a Brazilian online database that has about 50 thousand people from different regions of the country. The survey was also sent for convenience to students from two institutions in different regions of the country and acquaintances on Facebook. As an incentive, we offered five prizes of \$15.00 to draw among respondents who completed the survey and did not miss paychecks. The filters were similar in both samples.

4.4.2. *Measures*

For the Portuguese sampling, we follow the steps recommended in the literature for translation of the measurements (see Appendix 7). Following Douglas and Craig (2007) for equivalence of measures, we asked five Ph.D. students or professors with various skills and experiences to translate the items. The English items were adapted to the context of the research, and in the two samplings we used seven-points for Likert scales.

Consumer engagement. There are several scales to measure consumer engagement, and the scale of Vivek et al. (2014) is one of the most widely used when a multidimensional scale is desired with good reliability and discrimination among its dimensions. Previous research has also used this scale in the context of social media (Aragon, 2016). This scale is composed of three dimensions: conscious attention (three items), enthused participation (four items) and social connection (three items).

BESC. In addition to measuring engagement with a specific brand, we adopted the scale of Sprott et al. (2009) as a measure of the tendency of consumers to engage with brands in general. Composed of a single dimension with eight items, this scale does not specify a brand, presenting items as “I have a special bond with the brands that I like” and “My favorite brands are an important indication of who I am”.

Corporate reputation. Corporate reputation is measured as a global assessment of the company, not contextual. For example, we ask respondents to assess whether “[Brand] has a good overall reputation” instead of “[Brand] has a good overall reputation on social media”. According to Walsh and Beatty (2007), considering the consumer as one of the most important stakeholder, we limit ourselves to measuring corporate reputation through this group. As the literature

suggests that consumers tend to have an overall assessment of the organization (Weiss et al., 1999), we used a one-dimensional scale composed of 4 items adapted from Ponzi et al. (2011) and Nguyen and Leblanc (2001).

Perceived value. Perceived value is one of the most problematic measurement constructs due to its contextual character that often requires major adaptations. For example, there are specific measures for durable products (Sweeney & Soutar, 2001), services (Petrick, 2002) or brands (Vivek et al., 2014). On the other hand, there is also no consensus on the dimensionality and the formative or reflexive nature of the construct. Among the measures analyzed, we selected the one-dimensional scale of Kim et al. (2013), composed of three items that originally analyzed the perceived value of the use of mobile technology, in which we adapted to interact with publications related to the brand on Facebook.

4.4.3. *Pretests*

In the sampling with Americans, we received 68 complete answers, of which 63 were considered valid. Among these, most were women (63.5%), married (54%), with higher education level (39.7% complete and 22.2% incomplete), income between US\$3,000 and US\$6,000 (42.9%) and with a mean age of 36.35 (12.68) and 47 different brands were indicated. Most of these brands belonged to sectors such as technology, retail, clothing, beverage and food.

In the sampling with Brazilians, we received 76 complete answers. Of these, 55 were considered valid after excluding answers with a response time of less than three minutes and with a standard deviation of less than .50 among all items in the scales. Most were women (70.9%), married (49.1%), with higher education level (41.8% complete and 25.5% incomplete), income between US\$1,000 and US\$3,000 (34.5%) and with a mean age of 36.16 (10.81) and 48 different brands were indicated. Most of these brands belonged to sectors such as technology, beverage, food, football club, retail, and clothing.

As can be seen, the two samples, although using different strategies and having been carried out in different countries, presented great similarity. Both the pretests and the final surveys were elaborated in the Qualtrics (see Appendix 8 for sampling with Americans and Appendix 9 for sampling with Brazilians). As the pretests did not indicate problems, small adjustments were

made in the statements of the questions and some items of the scales.

4.4.4. Analysis and Procedure

Considering that we prioritize the fit of the model, we use Amos 22.0 software to analyze the data employing covariance-based Structural Equation Modeling (CB-SEM), most suitable when testing, confirming or comparing theories (Hair, Ringle, & Sarstedt, 2011).

For the two samplings, we first performed the confirmatory factor analysis for each of the constructs, analyzing the reliability and validity of the constructs separately, and then performing the structural model analysis.

As a criterion of reliability, convergent and discriminant validity we follow Fornell and Larcker (1981). Besides, we used Cronbach's alpha as a measure of reliability and Bagozzi and Phillips (1982) discriminant test as a complementary analysis.

Finally, the adjustment of the structural model took into account the chi-square per degree of freedom (χ^2/df), GFI, TLI, CFI and RMSEA indices for the model fit. According to the literature, the fit of the model is confirmed with the following values: $\chi^2/df < 5.0$; GFI $> .90$; TLI $> .95$; CFI $> .95$ and RMSEA $< .08$ (Hair, Black, Babin, & Anderson, 2009; Hu & Bentler, 1999). Besides, we also check the common method bias by Harman single factor test (Podsakoff & Organ, 1986).

4.5. Results and discussion

Although we have conducted two surveys, one with Americans and one with Brazilians, in this section we report together the results of each step of the two surveys, making it easier to compare the results between the two surveys.

4.5.1. Sample description

In the survey with Americans, we received 406 complete answers, 341 of which were considered valid after excluding answers that presented problems in the degree of agreement or

response time. After standardization of the data, only 24 discrepant observations were recoded at least non-discrepant in the valid responses.

Of these, most were of women (54.8%), single (47.5%) or married (41.6%), with higher education level (36.7% complete and 12% incomplete), income between US\$3,000 and US\$6,000 (31.4%) and with a mean age of 35.1 (11.12). A total of 219 different brands were cited, in which the most frequent were Apple (31), Nike (25), Coca-Cola (9), Adidas (5), Microsoft (5), Sephora (5), Target (5) and Under Armour (5). Among the sectors, we highlight technology, beverage, food, clothing and retail.

In the survey with Brazilians, we received 654 complete answers, of which we considered 445 valid after excluding the answers with problems in the attention checks, low standard deviation or questionnaires answered quickly. Only 19 discrepant observations were verified. In relation to the description of the sample, most were of women (61.1%), single (55.7%) or married (36.9%), with higher education level (29.7% complete and 28.5% incomplete), income between US\$1,000 and US\$3,000 (33.9%) and with a mean age of 33.1 (10.13). A total of 214 different brands were cited, in which the most frequent were Netshoes (33), Cacau Show (24), Apple (19), Heineken (17), Corinthians (16), Netflix (15), Nike (15), Flamengo (9), Samsung (8), Coca-Cola (7), McDonald's (6), Natura (6). Among the sectors most cited, we highlight the football club, beverage, food, technology, retail, clothing, cosmetics and beauty.

The two surveys showed similar results regarding gender, age, education and marital status, differing more and relation to income, something expected if we consider that the average income of the American is well above Brazilian. The results are also similar to those found in the pretests, showing stability in the different collections.

Regarding the items of the scales (Table 4.1), we observed that in the sample with Americans the consumer engagement with a specific brand was greater for the dimension conscious attention (5.28), and smaller for the dimension enthused participation (4.09), closer to the central point and was also the least average construct. BESC was slightly above the midpoint (4.55), while the corporate reputation was the highest average (5.84), and perceived value of brand interaction on Facebook was also slightly above the midpoint (5.10).

For the research with Brazilians, the results were very similar. Among the dimensions of consumer engagement with specific brands, conscious attention presented the highest mean (5.19), while enthused participation had the lowest (4.01). BESC was also close to the American sample (4.59), as well as the high corporate reputation (5.88). The mean perceived value was slightly lower than that reported by Americans (4.93).

Table 4.1. Scales for constructs measurement and descriptive statistics.

Construct	Source	Item	Items description	Americans		Brazilians	
				M	SD	M	SD
Conscious Attention	Vivek et al. (2014)	CA1	Publications related to the [Brand] community on Facebook grabs my attention	5.47	1.15	5.24	1.54
		CA2	I like to learn more about [Brand] through its Facebook community	5.28	1.23	5.00	1.62
		CA3	I pay a lot of attention to the publications related to the [Brand] community on Facebook	5.08	1.37	5.34	1.48
Enthused Participation	Vivek et al. (2014)	EP1	I spend a lot of my discretionary time interacting with [Brand] community on Facebook	3.99	1.61	3.55	1.90
		EP2	I am heavily into [Brand] community on Facebook*	4.49	1.51	4.47	1.82
		EP3	I am passionate about publications on [Brand] community on Facebook*	4.53	1.49	5.12	1.55
		EP4	My days would not be the same without the [Brand] community on Facebook	3.33	1.57	2.92	1.86
Social Connection	Vivek et al. (2014)	SC1	I like to interact with the [Brand] community on Facebook when my friends are also interacting	4.78	1.34	4.53	1.76
		SC2	I enjoy [Brand] community on Facebook more when there are other people interacting	4.88	1.37	4.69	1.63
		SC3	It is more fun to interact with the [Brand] community on Facebook when other people participate in the interaction	5.04	1.33	4.83	1.67
BESC	Sprott et al. (2009)	Besc1	I have a special bond with the brands that I like	4.67	1.50	4.98	1.65
		Besc2	I consider my favorite brands to be a part of myself*	4.39	1.55	4.09	1.82
		Besc3	I often feel a personal connection between my brands and me	4.56	1.47	4.62	1.73
		Besc4	Part of me is defined by important brands in my life*	4.13	1.55	3.98	1.82
		Besc5	I feel as if I have a close personal connection with the brands I most prefer	4.55	1.45	4.62	1.79
		Besc6	I can identify with important brands in my life	5.00	1.32	4.93	1.60
		Besc7	There are links between the brands that I prefer and how I view myself	4.63	1.44	4.85	1.59
		Besc8	My favorite brands are an important indication of who I am	4.47	1.49	4.62	1.70
Corporate Reputation	Adapted from Ponzi et al. (2011) and Nguyen and Leblanc (2001)	Rep1	[Brand] is a company that I trust	5.87	1.00	5.14	1.49
		Rep2	[Brand] has a good overall reputation	5.98	1.04	5.31	1.42
		Rep3	In general, I believe that [Brand] always fulfills the promises it makes to its customers	5.52	1.12	5.37	1.39
		Rep4	[Brand] has a good reputation	5.99	1.02	5.33	1.34
Perceived Value	Kim et al. (2013)	PV1	Interacting with publications related to [Brand] on Facebook is an enjoyable experience	5.33	1.16	5.42	1.29
		PV2	The overall value of my experience with publications related to [Brand] on Facebook is outstanding	5.24	1.21	4.92	1.42
		PV3	Interacting with publications related to [Brand] on Facebook represents a good use of my time	4.74	1.44	4.45	1.64

Notes — *Excluded items; M = Mean; SD = Standard deviation; n = 341 for Americans and n = 455 for Brazilians.

Probably, as we asked respondents to choose the brand they most interacted with, they chose brands with a high corporate reputation, explaining the high average for this construct. It is also easy to understand the lower mean for enthused participation in the two surveys, considering

that this dimension involves behavioral aspects that demand greater effort on the part of the respondents.

4.5.2. *Result for each construct*

As previously mentioned, before analyzing the structural model we perform the CFAs for each construct. Results for research with Americans showed high factorial loads (between .66 and .86) and good composite reliability of the scales (between .83 and .95). Despite this, the scale of consumer engagement with specific brand presented a problem of discrimination between conscious attention and enthused participation, and even with good initial adjustment ($\chi^2 (32) = 90.319$ ($p < .001$); $\chi^2/df = 2.822$; GFI = .946; TLI = .957; CFI = .970; and RMSEA = .073), we opted to exclude EP2 and EP3, which correlated with the conscious attention dimension. In addition to improving model fit ($\chi^2 (17) = 46.115$ ($p < .001$); $\chi^2/df = 2.713$; GFI = .966; TLI = .963; CFI = .978; and RMSEA = .071), the exclusion of these items resulted in discriminatory constructs.

The BESC scale did not present a good RMSEA (.11) due to the high modification indices of items Besc2 and Besc4. As Goldsmith and Goldsmith (2012), who excluded these two items, we reanalyzed the construct with the other 6 items and found a substantial improvement in the model adjustment indexes ($\chi^2 (9) = 22.882$ ($p = .006$); $\chi^2/df = 2.542$; GFI = .976; TLI = .986; CFI = .991; and RMSEA = .067). The 4 items of corporate reputation (factor-loading ranged from .72 to .86) and the 3 items of perceived value (factor-loading ranged from .75 to .83) also showed good composite reliability ($CR > .70$) and high average variance extracted ($AVE > .50$).

The research with Brazilians showed very similar results, with factor-loading ranged from .63 to .87 and composed reliability ranged from .77 to .94. Again, there was no discrimination between conscious attention and enthused perceived, indicating that EP2 and EP3 do not fit well in the context of social media, presenting high relation with the conscious attention and enthused participation. With the exclusion of these items, we found discrimination between the dimensions of engagement, good reliability and model fit ($\chi^2 (17) = 31.801$ ($p = .016$); $\chi^2/df = 1.871$; GFI = .982; TLI = .983; CFI = .989; and RMSEA = .044).

Again, the high modification indices between Besc2 and Besc4 (24.85) reduced the adjustment indices. When we excluded these items, the fit of the model was better ($\chi^2 (9) = 22.960$ ($p =$

.006); $\chi^2/df = 2.551$; GFI = .983; TLI = .987; CFI = .992; and RMSEA = .059). The corporate reputation scale (factor-loading ranged from .71 to .86) and perceived value (factor-loading ranged from .71 to .78) also presented high composite reliability and AVE.

4.5.3. Result of the structural model

Initially, we performed a CFA correlating all the constructs of the model to verify the existence of correlation between the constructs, in addition to the reliability, convergent and discriminant validity of the constructs.

In Table 4.2 below, we detail the results of the American survey. All constructs are positively and significantly correlated, ranging from .32 to .88. The constructs also showed good reliability, with Cronbach's alpha between .75 and .93, and composed reliability between .75 and .94. The AVE varied between .61 and .71, indicating the convergent validity of the constructs.

Table 4.2. Correlation Matrix, reliability, convergent and discriminant validity (sampling with Americans).

	M	SD	α	CR	CA	EP	SC	BESC	REP	PV
Conscious attention (CA)	5.28	1.27	.84	.84	.64	.45	.61	.32	.42	.77
Enthusied participation (EP)	3.66	1.63	.75	.75	.67***	.61	.41	.40	.10	.42
Social connection (SC)	4.90	1.35	.83	.83	.78***	.64***	.62	.35	.18	.49
BESC	4.65	1.46	.93	.94	.56***	.63***	.59***	.71	.24	.44
Corporate reputation (REP)	5.84	1.06	.88	.88	.65***	.32***	.42***	.49***	.66	.60
Perceived value (PV)	5.10	1.30	.83	.84	.88***	.65***	.70***	.66***	.77***	.63

Notes — M = Mean; SD = Standard deviation; α = Cronbach's alpha; CR = composed reliability; ***bivariate correlations between the constructs significant at $p < 0.001$; AVEs are shown on the diagonal (in bold); squared correlations are shown above the diagonal; n = 341.

Concerning discriminant validity, we compared the AVEs of all possible pairs of constructs with the square of the correlation between them. Of the 15 possible combinations, 14 presented discrimination according to Fornell and Larcker (1981). The only exception was between the constructs conscious attention and perceived value, with the square of the correlation (.77) greater than AVE of CA (.64) and PV (.63).

As there was no discrimination between CA and PE, we performed an additional test following the procedures suggested by Bagozzi and Phillips (1982). Comparing the model with the two unconstrained constructs with another model in which the correlation between the constructs is

constrained equal to 1.0, we compared the difference of χ^2 and the difference of chi-square ($\Delta\chi^2 / (\Delta df)$). As a result, $\Delta\chi^2 (1)$ was 35.14, which exceeded the 10.83 threshold and suggests that the constructs are discriminant with $p < .001$.

In relation to the structural model in American research (see Figure 4.2), we found a good fit of the model ($\chi^2 (182) = 413.087$ ($p < .001$); $\chi^2/df = 2.270$; GFI = .897; TLI = .945; CFI = .952; and RMSEA = .061). The standardized regression weights (β s) between constructs were positive (between .34 and .71) and significant ($p < .001$).

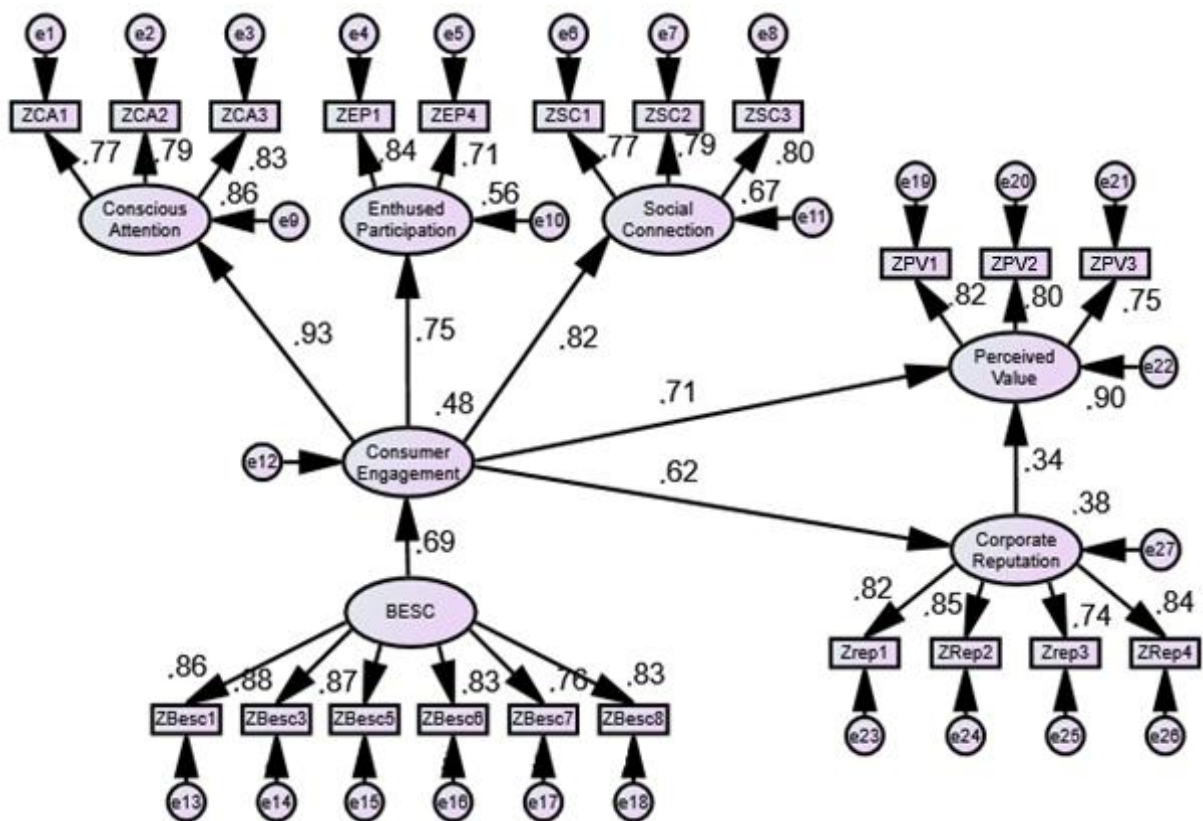


Figure 4.2. Hypothesized structural model (sampling with Americans).

Finally, we also checked the common method variance to see if our data were affected by the collection strategy. As the first factor with all items explained less than 50% of the data variance (46.6%), we understand that the results are not very influenced by the bias of the method (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003).

Concerning the survey with Brazilians, our results showed some similarity with the results found with the sampling with Americans. All correlations were also significant and positive, varying between .15 and .81. Cronbach's alpha ranged from .74 to .92, and composite reliability

ranged from .75 to .92, while AVE ranged from .52 to .66, indicating the reliability and convergence of constructs, as can be seen in Table 4.3.

Table 4.3. Correlation Matrix, reliability, convergent and discriminant validity (sampling with Brazilians).

	M	SD	α	CR	CA	EP	SC	BESC	REP	PV
Conscious attention (CA)	5.19	1.55	.77	.77	.52	.50	.35	.18	.23	.65
Enthusied participation (EP)	3.23	1.91	.74	.75	.71***	.60	.35	.22	.02	.55
Social connection (SC)	4.68	1.69	.85	.85	.59***	.59***	.65	.15	.04	.25
BESC	4.77	1.69	.92	.92	.44***	.47***	.38***	.66	.12	.25
Corporate reputation (REP)	5.88	1.15	.88	.88	.47***	.15**	.19***	.35***	.65	.29
Perceived value (PV)	4.93	1.51	.79	.80	.81***	.75***	.50***	.50***	.54***	.56

Notes — M = Mean; SD = Standard deviation; α = Cronbach's alpha; CR = composed reliability; ***bivariate correlations between the constructs significant at $p < 0.001$ or at ** $p < 0.01$; AVEs are shown on the diagonal (in bold); squared correlations are shown above the diagonal; $n = 445$.

Again, the discriminant validity by Fornell and Larcker (1981) indicated that 14 of the 15 possible pairs of constructs are discriminant, in that the pairs have AVE greater than the square of the correlation between them. Again, we turn to Bagozzi and Phillips (1982) for further verification of the discrimination between conscious attention and perceived value.

Comparing the model with the two constructs unconstrained with another model in which the correlation between the constructs is constrained equal to 1.0, the chi-square per degrees of freedom ($\Delta\chi^2/\Delta df$) variation was 52.31, which exceeded the 10.83 threshold and suggests that the constructs are discriminant with $p < .001$.

The structural model of the research with Brazilians (see Figure 4.3) showed a higher model fit than that found in the American survey ($\chi^2 (182) = 379.730$ ($p < .001$); $\chi^2/df = 2.086$; GFI = .925; TLI = .956; CFI = .962; and RMSEA = .049). The standardized regression weights (β s) between constructs were positive (between .23 and .80) and significant ($p < .001$).

Regarding the common method bias, the Brazilian research showed that the first factor extracted with all the items of the research presented only 33.1% of the data variance, not having a great influence on the data, which leads us to discard common method bias (Podsakoff et al., 2003).

In a brief comparison, although the results were similar, the US base presented constructs with higher reliability and AVE (except for social connection), while the Brazilian survey presented a better adjustment indices of the model.

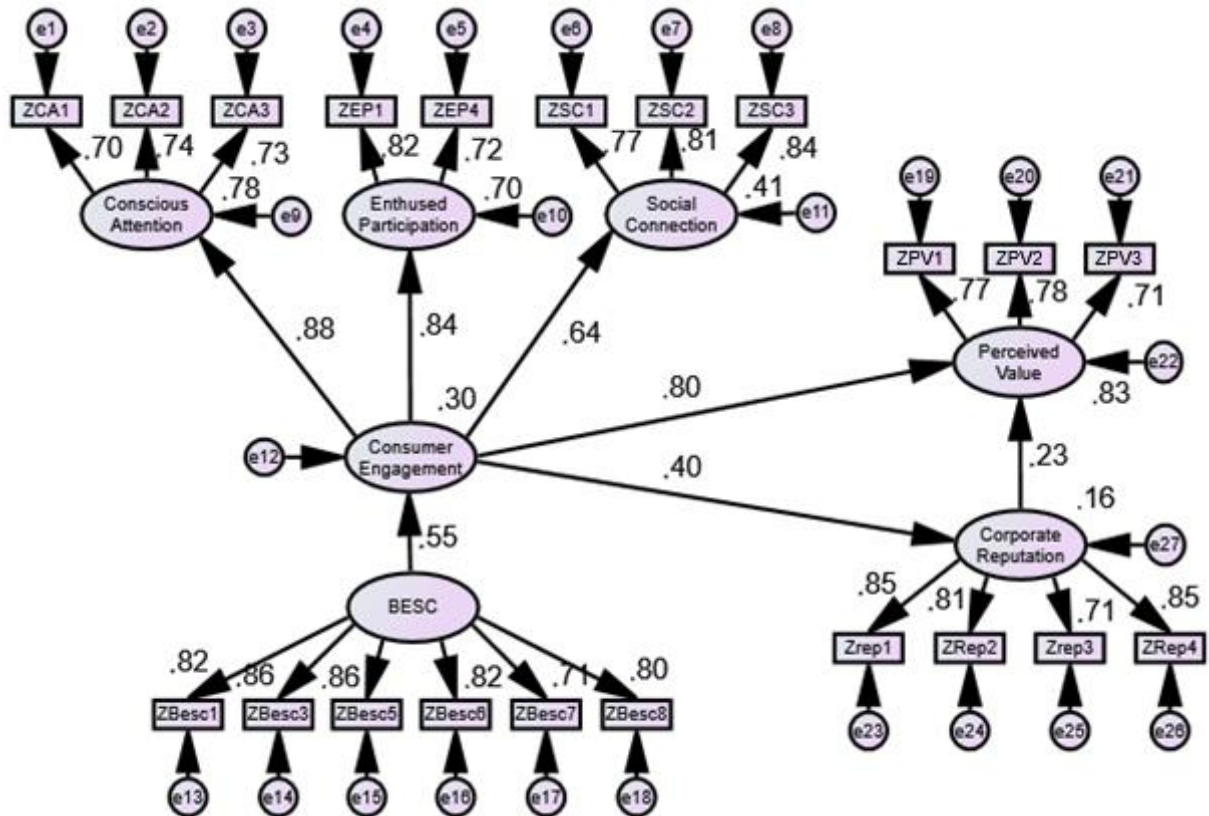


Figure 4.3. Hypothesized structural model (sampling with Brazilians).

4.5.4. Hypothesis test

As we hypothesized earlier, we expected that the dimensions of consumer engagement with a particular brand and BESC, a measure of overall engagement, would be positively correlated (Goldsmith & Goldsmith, 2012). According to results presented in Table 4.2 and 4.3, these constructs also have reliability and are discriminant.

In Table 4.4 below, we show that this result was confirmed in the two surveys, with Americans and Brazilians, supporting H1a, H1b, and H1c. In both surveys, BESC was more correlated with the dimension enthused participation, while conscious attention presented lower correlation in the research with Americans and social connection was the lowest in the Brazilian survey.

Regarding H2, H3, H4, and H5, the results of the structural model (see Figure 4.2 and 4.3) also indicated support in the two surveys. Table 4.5 below details these results, confirming H2, H3, H4 and H5.

Table 4.4. Hypothesis testing results (correlations).

No.	Hypothesis	<u>Americans</u>		<u>Brazilians</u>		Result
		Cor	(<i>t</i> _{critical})	Cor	(<i>t</i> _{critical})	
H1a	Conscious attention is positively correlated with brand engagement in self-concept (global brand engagement).	.56	7.604	.44	6.722	Confirmed
H1b	Enthusied participation is positively correlated with brand engagement in self-concept (global brand engagement)	.63	8.277	.47	7.469	Confirmed
H1c	Social connection is positively correlated with brand engagement in self-concept (global brand engagement)	.59	7.767	.38	6.443	Confirmed

Notes — Cor = Correlation; $p < .001$; American sample $n = 341$; Brazilian sample $n = 445$.

Table 4.5. Hypothesis testing results.

No.	Hypothesis	<u>Americans</u>		<u>Brazilians</u>		Result
		β	(<i>t</i> _{critical})	β	(<i>t</i> _{critical})	
H2	BESC (global brand engagement) is positively associated with consumer engagement with a specific brand.	.69	11.058	.55	8.976	Confirmed
H3	Consumer engagement with a specific brand is positively associated with corporate reputation.	.62	9.411	.40	6.482	Confirmed
H4	Consumer engagement with a specific brand is positively associated with perceived value.	.71	10.335	.80	10.581	Confirmed
H5	Corporate reputation is positively associated with perceived value.	.34	6.392	.23	4.947	Confirmed

Notes — β : Standardized regression weight; $p < .001$; American sample $n = 341$; Brazilian sample $n = 445$.

In the US survey, the effect of BESC on consumer engagement was well above that of Brazilian research ($\beta = .69$ versus $.55$), as well as the effect of corporate reputation on consumer engagement ($\beta = .62$ versus $.40$) and corporate reputation on perceived value ($\beta = .34$ versus $.23$).

Concerning the effect of consumer engagement on perceived value, the effect of the survey among Brazilians was slightly higher than in the US survey ($\beta = .80$ versus $.71$). On the other hand, if we consider only the indirect effect (mediated by reputation), it was higher among Americans ($\beta = .21$ versus $.09$) with 5000 bootstrap samples at 95% confidence level (Zhao, Lynch Jr., & Chen, 2010). Besides the partial mediation in the two samples ($p < .001$), this result shows that the engagement has a strong direct and indirect effect on the perceived value in both surveys.

In our model, 48% of the consumer engagement variance was explained by BESC among Americans and 55% among Brazilians. Regarding dependents, in the American survey, 38% of the variance of corporate reputation and 16% among Brazilians was explained by consumer engagement. Finally, 90% of the variance of perceived value was explained by the model among Americans (consumer engagement and corporate reputation), while among Brazilians

this value drops to 83%.

If we consider as a direct relation the correlations of the dimensions of consumer engagement with corporate reputation and perceived value (see Table 4.2 and 4.3), the mean correlation tends to be higher in the US survey, especially between corporate reputation and CA (.65 versus .47), PE (.32 versus .15) and SC (.42 versus .19), and between perceived value and SC (.70 versus .50). Across the two contexts, conscious attention presented the highest correlations with corporate reputation and perceived value. Social connection showed a higher correlation with corporate reputation and perceived value among Americans, while enthused participation was higher among Brazilians.

4.5.5. *Cross-cultural validation*

As the isolated analysis of the bases indicated many differences between the two samplings, such as reliability and validity of the constructs, model fit or relation between variables, we decided to check the cross-cultural validity of the model. For Dessart et al. (2016) and Jang, Olfman, Ko, Koh, and Kim (2008), the global nature of social media interactions justifies the cross-cultural validation of our model.

To verify intercultural validity, we used the invariance test in AMOS multigroup analysis function. We carry the two bases distinguishing one group as Americans and the other as Brazilians. Then, we set up two models (see Byrne, 2010), one unconstrained (Figures 4.2 and 4.3). As a result, the adjustment indexes were excellent ($\chi^2(364) = 792.865$ ($p < .001$); $\chi^2/df = 2.178$; GFI = .913; TLI = .951; CFI = .958; and RMSEA = .039), being a good indicator of the invariance of the models.

In addition, to perform a more formal test, we set up another model, now constrained ($\chi^2(385) = 822.830$ ($p < .001$); $\chi^2/df = 2.137$; GFI = .909; TLI = .953; CFI = .957; and RMSEA = .038). As cut-off criterion, we adopted $p < .05$ in the comparison of the difference of chi-square per degrees of freedom and $p < .01$ in the comparison of the other indexes reported (GFI, TLI, CFI and RMSEA). As a result ($\Delta\chi^2(29.965) / \Delta df(21) = 1.43$ ($p = .093$); $\Delta GFI = .004$ $\Delta TLI = -.002$; $\Delta CFI = .001$; $\Delta RMSEA = .001$), we confirm the invariance at the structural model level.

Finally, as some regression weights showed a large difference between the US and Brazilian

surveys, we also performed path level tests. According to Table 4.6, even when we constrained only one path between the constructs (H2-H5), we found the invariance of the results between the two samples ($p < .01$), indicating that there was also invariance in the path level.

Table 4.6. Invariance test among the sample with Americans and Brazilians.

Level	$\Delta\chi^2/\Delta df$	p -value	ΔGFI	ΔTLI	ΔCFI	$\Delta RMSEA$
Structural model	1.430	.093	.004	-.002	.001	.001
BESC-Eng	5.338	.021	.001	.000	.001	.000
Eng-Rep	3.274	.070	.001	.000	.001	.000
Eng-PV	1.760	.185	.001	.000	.001	.000
Rep-PV	2.999	.083	.001	.000	.001	.000

4.6. Conclusion

Our main objective in this research involved the operationalization of the proposed theoretical framework. To do so, we conducted two surveys with respondents from different countries, from the United States and Brazil, and showed the cross-cultural stability of the model tested.

In addition to empirically testing this model, we have analyzed the relationship between consumer engagement with a particular brand and BESC as a measure of overall engagement. While a general measure, BESC represent a trait of the individual, in which individuals have different levels of engaging with brands in self-concept. As Marbach et al. (2016) have already indicated that personality traits are important antecedents of consumer engagement, we proposed that BESC predicts consumer engagement with a specific brand.

Just as Goldsmith and Goldsmith (2012), who had correlated the constructs, we found that these constructs are positively related. Differently from these, we observed consumer engagement as a multidimensional construct, in which all dimensions presented a high correlation with BESC, either for research with Americans or with Brazilians.

Besides the correlation and discrimination between BESC and consumer engagement, our results showed that BESC is an important predictor of consumer engagement (second order construct), explaining 48% of the variance in the research with Americans and 30% in the research with Brazilians.

Regarding the consequences of the model, we find that companies can improve corporate reputation by engaging consumers in social media. In addition to the significant and positive correlation with conscious attention, enthused participation and social connection, consumer engagement explained 38% of the variance of reputation in the sample with Americans and 16% among Brazilians, reinforcing other studies that analyzed this relationship (Alloza, 2008; Dijkmans et al., 2015; Li et al., 2013).

We also confirm that consumers perceived value in their interaction with the brand in social media. The effect of consumer engagement on perceived value has already been confirmed in other contexts (Kim et al., 2013; Vivek et al., 2014), and we confirm it in social media. As these constructs are contextual, our results reinforce this theoretical relationship, in which 50% of the variance of perceived value was explained by engagement in American research, and 64% in Brazilian research. These results are in agreement with previous research, which showed that the engagement is directly linked to the perception of value of the consumers (Marbach et al., 2016). Also, we found an indirect effect of engagement, partially mediated by corporate reputation.

Although the relationship between corporate reputation and perceived value is still the subject of strong discussion (De la Fuente Sabaté & De Quevedo Puente, 2003), our results support that corporate reputation has a positive relation with perceived value, accounting for 12% of its variance in research with Americans and 5% in research with Brazilians, in the presence of consumer engagement as another antecedent. Together, 90% of the variance of perceived value was explained in the research with Americans and 83% in the research with Brazilians.

The analysis of the model with Americans and Brazilians allowed us to check the invariance of the model. We confirmed through multigroup analysis that both in model and path level the models are equivalent, indicating cross-cultural validity and model invariance.

In addition to the theoretical implications, our results have some managerial implications. First, our theoretical model has cross-cultural validity and was carried out in relation to several brands. This suggests that in addition to the internal validity, our findings have good external validity and are valid for companies from multiple sectors.

Second, we have shown that an important predictor of consumer engagement with a brand is something intrinsic, defined as BESC. In addition to managing the brand in social media in order to promote greater engagement, managers could attract people with a greater tendency to engage with brands in the self-concept, since this represents a trait that explains part of the engagement of the consumers.

Third, we have also found that brand management in social media can improve corporate reputation and is important in planning relationship marketing strategies. Other research outcome, perceived value, indicates that consumers perceive advantages in engaging with brands in social media. Nielsen (2012) reports have already indicated that consumers perceive positively the interaction with brands in social media, and managers can take advantage of the fact that consumers also perceive benefits of this interaction and increase perceived value, whether through utilitarian, hedonic, identity or social aspects.

Finally, our research presents some limitations that also represent research opportunities. First, we do not study the processes that promote higher BESC. Not even Sprott et al. (2009) who developed the scale, filled this gap. Future research could analyze the process that facilitates BESC or how to segment and attract consumers with this feature.

As we asked respondents to indicate the brands with which they interacted the most, our data showed a high average for the corporate reputation construct. Possibly, respondents chose the strongest brands in their respective sector. In this way, our results can be limited to companies with a high corporate reputation, representing an opportunity for future research, in which one could focus on brands with low reputation.

We analyze consumer engagement as a second-order construct, using the correlation of its dimensions for nomological validation with antecedent and consequence. Future studies could prioritize direct relationships (with dimensions of engagement) and check the discrimination between conscious attention and perceived value. Finally, we also use one-dimensional measures of corporate reputation and perceived value, facilitating nomological validity, but simplifying the nature of constructs.

5. CHAPTER 5 – DISSERTATION CONCLUSIONS

DISSERTATION CONCLUSIONS

We had started this dissertation showing the importance of social media and how it can improve corporate reputation (Dijkmans, Kerkhof, & Beukeboom, 2015), increase sales, return on investment and positive word-of-mouth (Kumar, Bhaskaran, Mirchandani, & Shah, 2013), and create value for consumers (Wirtz et al., 2013).

Next, we add the role of an important construct that has been used to analyze the consumer-brand relationship in this context: consumer engagement (Brodie, Hollebeek, Jurić, & Ilić, 2011). Just as social media gained popularity and a user boom around 2004 (creation of Flickr, Orkut, and Facebook), researchers began to analyze the influence of brand communities and developed measures to analyze engagement (Algesheimer, Dholakia, & Herrmann, 2005).

Especially after the Marketing Science Institute put consumer engagement and social media as research priorities in 2010, there was a multiplication of theoretical and empirical studies that resulted in several special issues in many journals, such as *Journal of Service Research* (2010), *Journal of Strategic Marketing* (2011), *Journal of Service Research* (2011), *Journal of Product & Brand Management* (2014), *Journal of Strategic Marketing* (2015), *Journal of Marketing Management* (2016), *Journal of Service Theory and Practice* (2017), *Journal of Services Marketing* (scheduled to 2017) and *Journal of Advertising* (scheduled to 2017).

One of the main theoretical discussions of the concept was based on the service-dominant logic (Vargo & Lusch, 2004; 2008) and defined customer engagement as “a psychological state that occurs by virtue of interactive, cocreative customer experiences with a focal agent/object (e.g., a brand) in focal service relationships” and “it is a multidimensional concept subject to a context- and/or stakeholder-specific expression of relevant cognitive, emotional and/or behavioral dimensions” (Brodie, et al., 2011, p. 260).

More recently, Vivek, Beatty, Dalela, and Morgan (2014) integrated the S-D logic and relationship marketing literature by considering that customer engagement “goes beyond the purchase and is the level of the customer's (or potential customer's) interactions and connections

with the brand or firm's offerings or activities, often involving others in the social network created around the brand/offering/activity” (p. 406).

Since then, several definitions have emerged maintaining consumer engagement as a multidimensional construct composed of cognitive, emotional and behavioral aspects that vary depending on the focal object and context in which it is analyzed. Thus, we consider that consumer engagement is a consumer's positive level of cognitive, emotional and behavioral investment with a focal object (Hollebeek, 2011b; Brodie et al., 2011; Hollebeek, Glynn, & Brodie, 2014), in specific direct (Hollebeek, 2011a) or indirect interactions.

With this broad definition and considering its central role in the nomological network (Brodie et al., 2011), propose two main objectives in Article 1: i) to show that a measure of engagement can be used for multiple objects and contexts, ii) and to analyze the mediating role of engagement in a nomological network.

Our argument is that despite the definition and measurement of engagement vary according to the subject, object and context in which it is used, the existence of validated scales with multiple contexts or objects indicates that keeping the subject constant (e.g., consumer) there can be a more comprehensive definition and more flexible scale that reduce the trend of fragmentation of the area.

To do so, we propose that the Vivek et al. (2014) scale, validated in multiple contexts, can also be adopted to measure engagement with multiple objects. We validate this scale in relation to brand communities (object), while the scale was originally developed to measure the engagement with brands. Our results attested to the reliability, convergent and discriminant validity of the scale and provide a short multidimensional scale option to measure the construct, since most community engagement scales were developed with 6, 7, 8 or even 11 dimensions (e.g., Baldus, Voorhees, & Calantone, 2015; Calder, Malthouse, & Schaedel, 2009; Dessart, Veloutsou, & Morgan-Thomas, 2016), making it difficult to validate them in a nomological network.

We also confirm the mediating role of community engagement (Dijkmans et al., 2015). Theoretical studies have already implied that this construct has antecedents related to different drivers (consumer, company, brand, community, context, channel, among others) that generate

benefits for consumers and companies through engagement with the brand community (van Doorn et al., 2010; Dijkmans et al., 2015). We have found that the perceived homophily (related to other community members) and involvement (related to brand) have the positive effect on corporate reputation fully mediated by community engagement.

As a managerial contribution, this research identifies that managers can increase community engagement mainly through brand involvement. However, the company must attract to its community customers with similar characteristics to increase the perceived homophily among members, which in turn improves the community engagement. In the same way that the company imagines an audience when developing a product for their consumers, these results are important to show managers that the company must also create a brand community with a specific audience, rather than just worry about the number of followers.

The measures tested in this research also serve as support for practitioners, since they represent an alternative or complement measures provided by the social media themselves. For example, a social media manager can use Facebook metrics and conduct a survey with community members to develop strategies and improve their results.

Having shown the ability of a scale to analyze consumer engagement with different objects and context, our next objective was to compare some of the main scales to verify specific advantages of these different instruments explored in Article 2. Taking into account that previous research has not established a process of scale comparison, our contribution also concerns the creation of a univocal protocol to reach this purpose. To this end, we have established a procedure i) for the selection, ii) standardization and iii) analysis of the consumer engagement measures.

In the first step, we suggest that only measures developed for a specific stakeholder should be compared because the vectors of a construct can be very different between types of subjects. For example, what motivates consumer engagement can be very different from what motivates the engagement of employees or suppliers. Besides, the scales selected should have similar definition and dimensionality because if the idea is to compare scales, they must have certain similarities or the comparison loses meaning. For example, one-dimensional and seven-dimensions scales are different and do not require a comparison.

As a second step, we recommend the standardization of measures in relation to the subject, object, context, language and number of points on the scale. And finally, for comparative analysis we suggest that in addition to the model fit indices, reliability and validity of the scales provided by the Classical Test Theory (CTT), researchers consider the discrimination, difficulty and information provided by the items and dimensions by the Item Response Theory (IRT).

Future research may use the established steps to compare measures of other constructs, either as the end goal of the article or as a step toward selecting the most appropriate measure for the purpose of your study.

Applying these procedures, we selected three scales of consumer engagement among thirteen measures listed: Dessart et al. (2016), Hollebeek et al. (2014) and Vivek et al. (2014); and we standardized them using seven-point Likert scale with consumer as subject, brands as object and social media as context. As a result of the comparative analysis, we verified specific advantages in the use of these measures, such as greater discrimination among dimensions by Vivek et al. (2014) scale, better reliability and convergent validity of Hollebeek et al. (2014) scale, while a reduced version of the Dessart et al. (2016) scale captured more information for affective and cognitive dimensions by IRT.

These results provide a range of options for social media brand marketers by validating three measures in this context. In analyzing the selected measures, for example, we show managers the specific advantages of each one of the tested scales, making it easier to choose the one that best suits its purpose.

By using three different measures of engagement, we also found that in both consumers they tend to have a medium engagement. As a practitioner literature shows that consumers like to interact with brands in social media, this shows a great opportunity for marketers to improve follower engagement. The respondents also indicated different brands and sectors, which leads us to assume that companies of different types can benefit from consumers engaged in social media.

Finally, in Article 3 we focus on two types of engagement: consumer engagement with specific brand, measured by Vivek et al. (2014), and brand engagement in self-concept (BESC) as a measure of brand engagement in general. Just as Goldsmith and Goldsmith (2012), who had

correlated the constructs, we found that these constructs are positively related. Besides, we also proposed and verified that BESC represents an important antecedent of consumer engagement.

Our objective in this article also involved analyzing how consumer engagement in social media can generate benefits for brands and consumers. To that end, we consider corporate reputation as an important outcome for brands in social media, while perceived value represented the outcome for consumers engaged with brands in social media.

To validate this model, we performed two surveys, one with Americans and the other with Brazilians. Our findings have shown that consumer engagement has a positive impact on corporate reputation and (directly and indirectly) on perceived value. Employing the multigroup analysis, we also confirm the invariance of the models in the structural and path level, guaranteeing nomological and cross-cultural validation.

As a managerial implication, the cross-cultural validity and the fact that we used brands from several sectors increases the external validity of our findings. Managers can also use our findings to improve consumer engagement by attracting people with higher levels of BESC, as well as enhancing corporate reputation by engaging consumers with the brand in social media.

Knowing that consumers like to interact with brands in these spaces (Nielsen, 2012) and perceive value, managers can stimulate consumers by offering utilitarian, hedonic, identity or social benefits when interacting with the brand in these spaces.

An important result of this third article, due to the application of the scale of Vivek et al. (2014) with Americans, it was found that there was no failure in the translation of the scale, either in Article 2 or the research with Brazilians in Article 3. In both samples in Portuguese and English sampling, we verified that items EP2 And EP3 presented problems in the factorial analysis, presenting correlation with the dimension conscious attention. Possibly, this means that these items do not fit well into the context of social media, but their exclusion did not prevent the enthused participation construct from having convergent reliability and validity.

Finally, we point out that in the aggregation of the three articles, i) we have verified antecedents with different vectors: perceived homophily with others brand followers, consumer involvement with brand, and BESC as a characteristic of the individual; ii) we compare the

performance of different scales of consumer engagement in social media: Dessart et al. (2016), Hollebeek et al. (2014), and Vivek et al. (2014); and iii) we analyze its consequences for companies (corporate reputation) and consumers (perceived value).

In doing so, we offer theoretical, methodological and managerial advances for the use of social media by companies, for relationship marketing literature, and especially for defining and measuring consumer engagement in nomological networks.

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APPENDICES

Appendix 1 - scales translation and adaptation for the pretest and survey (Article 1)

ORIGINAL SCALES	CODE	TRANSLATED ITEMS
Consumer involvement (Zaichkowsky, 1994)		
Unimportant / Important	I1	
Boring / Interesting	I2	Desinteressante / Interessante
Irrelevant / Relevant	I3	Irrelevante / Relevante
Unexciting / Exciting	I4	Sem graça / Excitante
Means nothing / Means a lot to me	I5	Não significa nada / Significa muito para mim
Unappealing / Appealing	I6	Sem apelo / Atraente
Mundane / Fascinating	I7	
Worthless / Valuable	I8	Sem Valor / Valiosa
Uninvolving / Involving	I9	Sem envolvimento / Envolve
Not needed / Needed	I10	Desnecessária / Necessária
Perceived Homophily - the attitude dimension (McCroskey, Richmond, & Daly, 1975)		
Doesn't think like me/Thinks like me	H1	Não pensam como eu / Pensam como eu
Behaves like me/Doesn't behave like me	H2	Não se comportam como eu / Pensam como eu
Similar to me/Different from me	H3	São diferentes de mim / São semelhante a mim
Unlike me/Like me	H4	Não são como eu / São como eu
Customer Engagement (Vivek, Beatty, Dalela, & Morgan, 2014)		
Conscious Attention		
Anything related to ___ grabs my attention.	CA1	Publicações relacionadas à página da Marca X no Facebook prendem minha atenção.
I like to learn more about ___.	CA2	Gosto de aprender mais sobre a Marca X por meio da sua página no Facebook.
I pay a lot of attention to anything about ___.	CA3	Presto bastante atenção às publicações relacionadas à página da Marca X no Facebook.
Enthusied Participation		
I spend a lot of my discretionary time ___.	EP1	Eu passo muito do meu tempo livre interagindo (lendo, curtindo, comentando ou compartilhando) com a página da Marca X no Facebook.
I am heavily into ___.	EP2	Sou bastante envolvido(a) com a página da Marca X no Facebook.
I am passionate about ___.	EP3	Sou apaixonado(a) pelas publicações na página da Marca X no Facebook.
My days would not be the same without ___.	EP4	Meus dias não seriam os mesmos sem a página da Marca X no Facebook.
Social Connection		
I love ___ with my friends.	SC1	Eu gosto de interagir (ler, curtir, comentar ou compartilhar) com a página da Marca X no Facebook quando meus amigos também estão interagindo.
I enjoy ___ more when I am with others.	SC2	Eu gosto mais da página da Marca X no Facebook quando há outras pessoas interagindo.
___ is more fun when other people around me do it too.	SC3	É mais divertido interagir (ler, curtir, comentar ou compartilhar) com a página da Marca X no Facebook quando outras pessoas também participam da interação.
Corporate Reputation (Nguyen & Leblanc, 2001)		
In general, I believe that ___ always fulfills the promises that it makes to its customers.	Rep1	Em geral, acredito que a Marca X sempre cumpre as promessas que faz aos seus clientes.
___ has a good reputation.	Rep2	A Marca X tem uma boa reputação.
I believe that the reputation of ___ is better than other companies.	Rep3	Eu acredito que a reputação da Marca X é melhor do que de outras empresas.

Appendix 2 - pretest 1 (Article 1)

Prezado(a), estamos realizando uma pesquisa com torcedores de clubes do futebol nacional. Contamos contigo no preenchimento deste questionário sobre a sua interação com a página oficial do clube que você torce no Facebook.

Não existe resposta certa ou errada e suas respostas serão tratadas de forma anônima e confidencial.

Muito obrigado pela sua colaboração.

Com que frequência você usa o Facebook?

- ☐ Diariamente
- ☐ 4-6 vezes por semana
- ☐ 2-3 vezes por semana
- ☐ 1 vez por semana
- ☐ Menos de 1 vez por semana

Indique qual dos clubes de futebol listado a seguir você torce.

Caso o clube não esteja na lista ou caso você não torça para nenhum time, marque 'nenhum'.

Você segue a página oficial do clube que você torce no Facebook?

- ☐ Sim
- ☐ Não

Appendix 2 (continuation)

A seguir, para cada par de palavras você deve marcar o ponto mais próximo daquela que mais representa a sua opinião.

Exemplo: se você acha que a página do clube no Facebook é mais 'divertida' que 'entediante', você marca um dos pontos próximos de 'divertida'. Quanto mais próximo de uma das palavras, maior seu grau de concordância com ela.

Para você, a página do clube que você torce no Facebook é:

Sem Valor	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	Valiosa
Desinteressante	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	Interessante
Sem importância	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	Importante
Sem envolvimento	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	Envolvente
Irrelevante	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	Relevante
Sem apelo	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	Atraente
Não significa nada para mim	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	Significa muito para mim
Desnecessária	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	Necessária
Normal	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	Fascinante
Sem graça	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	Excitante

Seguindo a lógica anterior, dê sua opinião sobre os demais seguidores do clube que você torce.

Os outros seguidores da página do clube no Facebook:

Não são como eu	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	São como eu
Não se comportam como eu	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	Se comportam como eu
Não pensam como eu	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	Pensam como eu
São diferentes de mim	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	São semelhantes a mim

Appendix 2 (continuation)

Agora avalie o seu grau de concordância para cada frase, sobre a página do clube <u>ou</u> sobre o clube em si.	
Presto bastante atenção às publicações relacionadas à página do clube no Facebook.	Discordo totalmente <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Concordo totalmente
Eu gosto de interagir com a página do clube no Facebook quando meus amigos também estão interagindo.	Discordo totalmente <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Concordo totalmente
Eu passo muito do meu tempo livre interagindo com a página do clube no Facebook.	Discordo totalmente <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Concordo totalmente
Meus dias não seriam os mesmos sem a página do clube no Facebook.	Discordo totalmente <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Concordo totalmente
Gosto de aprender mais sobre o clube por meio da sua página no Facebook.	Discordo totalmente <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Concordo totalmente
É mais divertido interagir com a página do clube no Facebook quando outras pessoas também participam da interação.	Discordo totalmente <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Concordo totalmente
Sou bastante envolvido(a) com a página do clube no Facebook.	Discordo totalmente <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Concordo totalmente
Gosto quando o clube que torço perde.	Discordo totalmente <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Concordo totalmente
O Facebook é uma ferramenta para enganar as pessoas.	Discordo totalmente <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Concordo totalmente
A Marca X tem uma boa reputação.	Discordo totalmente <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Concordo totalmente
Eu acredito que a reputação da Marca X é melhor do que de outras empresas.	Discordo totalmente <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Concordo totalmente
Publicações relacionadas à página do clube no Facebook prendem minha atenção.	Discordo totalmente <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Concordo totalmente
Em geral, acredito que a Marca X sempre cumpre as promessas que faz aos seus clientes.	Discordo totalmente <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Concordo totalmente
Eu gosto mais da página do clube no Facebook quando há outras pessoas interagindo.	Discordo totalmente <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Concordo totalmente
Gosto de ser zoadado quando o clube que torço perde.	Discordo totalmente <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Concordo totalmente
Sou apaixonado(a) pelas publicações na página do clube no Facebook.	Discordo totalmente <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Concordo totalmente

Appendix 2 (continuation)

Gênero
<input type="radio"/> Masculino <input type="radio"/> Feminino
Idade
<input type="text"/>
Estado civil
<input type="radio"/> Solteiro(a) <input type="radio"/> Casado(a) <input type="radio"/> Separado(a) / divorciado(a) / desquitado(a) <input type="radio"/> Viúvo(a)
Escolaridade
<input type="radio"/> Ensino fundamental <input type="radio"/> Ensino médio <input type="radio"/> Superior incompleto Superior completo <input type="radio"/> Pós-graduado(a)
Renda familiar
<input type="radio"/> Abaixo de R\$ 1.760,00 <input type="radio"/> Entre R\$ 1.760,0 e R\$ 3.520,00 <input type="radio"/> Entre R\$ 3.520,01 e R\$ 8.800,00 <input type="radio"/> Entre R\$ 8.800,01 e 17.600,00 <input type="radio"/> Acima de R\$ 17.600,00
Número de pessoas na sua residência
<input type="text"/>

Appendix 3 - pretest 2 and final research instrument (Article 1)

<p>Prezado(a),</p> <p>A VIDI SHOPPER, em parceria com a FGV, está realizando uma pesquisa com seguidores de marcas no Facebook e contamos contigo no preenchimento deste questionário. Não existe resposta certa ou errada, e suas respostas serão tratadas de forma anônima e confidencial.</p> <p>Agradecemos antecipadamente a sua participação. VIDI e FGV</p>
<p>1. Com que frequência você usa o Facebook? (Caso você não possua perfil no Facebook, você pode encerrar sua participação nesta pergunta).</p> <p> <input type="radio"/> Diariamente <input type="radio"/> 4-6 vezes por semana <input type="radio"/> 2-3 vezes por semana <input type="radio"/> 1 vez por semana <input type="radio"/> Menos de 1 vez por semana </p>
<p>2. Você utilizou o Facebook para interagir com uma marca de sua preferência nas últimas duas semanas? (Entenda "INTERAGIR" como atividades relacionadas a visualizar as publicações da marca na sua linha do tempo; curtir, comentar ou compartilhar conteúdo sobre a marca).</p> <p> <input type="radio"/> Sim <input type="radio"/> Não </p>
<p>3. Escreva o nome da Marca com a qual você respondeu ter interagido na pergunta anterior. Caso você tenha interagido com mais de uma marca, escolha apenas uma. Ex: Apple, Fiat, Nike, Flamengo. (Marca é um nome, termo, sinal, símbolo, desenho ou combinação desses elementos que deve identificar os bens ou serviços de um fornecedor, diferenciando-o dos concorrentes (Keller, 2005)).</p> <div style="border: 1px solid black; height: 20px; width: 100%;"></div>
<p>4. Você segue a página da Marca citada no item anterior no Facebook?</p> <p> <input type="radio"/> Sim <input type="radio"/> Não </p>
<p>5. Você comprou algum produto ou serviço desta Marca nos últimos 2 anos?</p> <p> <input type="radio"/> Sim <input type="radio"/> Não </p>

Appendix 3 (continuation)

ORIENTAÇÕES GERAIS

De agora em diante, **faremos referência à marca escolhida e citada nos itens anteriores como sendo 'Marca X'**. Por favor, responda as perguntas a seguir marcando as opções que melhor representam a sua opinião.

A seguir, para cada par de palavras ou frases, marque o ponto mais próximo daquela que mais representa a sua opinião.

Exemplo: se você acha a Marca X mais 'divertida' que 'entediante', marcaria um dos pontos próximos de 'divertida'. Quanto mais próximo de uma das palavras, maior seu grau de concordância com ela.

Para você, a **Marca X** é:

Sem apelo	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	Atraente
Desinteressante	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	Interessante
Sem Valor	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	Valiosa
Sem envolvimento	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	Envolvente
Não significa nada para mim	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	Significa muito para mim
Sem graça	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	Excitante
Desnecessária	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	Necessária
Irrelevante	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	Relevante

Seguindo a lógica anterior, dê sua opinião sobre os outros seguidores da página da Marca X.

Os outros seguidores da página da Marca X no Facebook:

Não se comportam como eu	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	Se comportam como eu
Não são como eu	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	São como eu
Não pensam como eu	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	Pensam como eu
São diferentes de mim	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	São semelhantes a mim

Appendix 3 (continuation)

<p>Você já respondeu quase tudo.</p> <p>Agora, por favor, avalie o seu grau de concordância com as afirmações sobre a página da Marca X ou sobre a Marca X em si.</p>	
O Facebook arruinou a minha vida.	Discordo totalmente <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Concordo totalmente
Eu gosto de interagir (ler, curtir, comentar ou compartilhar) com a página da Marca X no Facebook quando meus amigos também estão interagindo.	Discordo totalmente <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Concordo totalmente
Sou apaixonado(a) pelas publicações na página da Marca X no Facebook.	Discordo totalmente <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Concordo totalmente
Gosto quando a Marca X me engana.	Discordo totalmente <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Concordo totalmente
Em geral, acredito que a Marca X sempre cumpre as promessas que faz aos seus clientes.	Discordo totalmente <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Concordo totalmente
Eu gosto mais da página da Marca X no Facebook quando há outras pessoas interagindo.	Discordo totalmente <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Concordo totalmente
Presto bastante atenção às publicações relacionadas à página da Marca X no Facebook.	Discordo totalmente <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Concordo totalmente
A Marca X tem uma boa reputação.	Discordo totalmente <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Concordo totalmente
Eu passo muito do meu tempo livre interagindo (lendo, curtindo, comentando ou compartilhando) com a página da Marca X no Facebook.	Discordo totalmente <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Concordo totalmente
Publicações relacionadas à página da Marca X no Facebook prendem minha atenção.	Discordo totalmente <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Concordo totalmente
É mais divertido interagir (ler, curtir, comentar ou compartilhar) com a página da Marca X no Facebook quando outras pessoas também participam da interação.	Discordo totalmente <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Concordo totalmente
Ganho dinheiro por seguir a Marca X no Facebook.	Discordo totalmente <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Concordo totalmente
Eu acredito que a reputação da Marca X é melhor do que de outras empresas.	Discordo totalmente <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Concordo totalmente
Meus dias não seriam os mesmos sem a página da Marca X no Facebook.	Discordo totalmente <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Concordo totalmente
Gosto de aprender mais sobre a Marca X por meio da sua página no Facebook.	Discordo totalmente <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Concordo totalmente

Appendix 3 (continuation)

Gênero
<input type="radio"/> Masculino <input type="radio"/> Feminino
Idade (apenas números)
<input type="text"/>
Estado civil
<input type="radio"/> Solteiro(a) <input type="radio"/> Casado(a) <input type="radio"/> Separado(a) / divorciado(a) / desquitado(a) <input type="radio"/> Viúvo(a)
Escolaridade
<input type="radio"/> Ensino fundamental incompleto <input type="radio"/> Ensino fundamental completo <input type="radio"/> Ensino médio incompleto <input type="radio"/> Ensino médio completo <input type="radio"/> Superior incompleto <input type="radio"/> Superior completo <input type="radio"/> Pós-graduado(a)
Renda familiar mensal
<input type="radio"/> Abaixo de R\$ 1.760,00 <input type="radio"/> Entre R\$ 1.760,0 e R\$ 3.520,00 <input type="radio"/> Entre R\$ 3.520,01 e R\$ 8.800,00 <input type="radio"/> Entre R\$ 8.800,01 e 17.600,00 <input type="radio"/> Acima de R\$ 17.600,00
Número de pessoas na sua residência (apenas número)
<input type="text"/>

Appendix 4 - 13 measures of engagement (Article 2)

Community engagement - Algesheimer, Dholakia, and Herrmann (2005)

I benefit from following the brand community's rules.

I am motivated to participate in the brand community's activities because I feel better afterwards.

I am motivated to participate in the brand community's activities because I am able to support other members.

I am motivated to participate in the brand community's activities because I am able to reach personal goals.

Online brand community engagement - Baldus, Voorhees, and Calantone (2015)

Brand influence

I am motivated to participate in this brand community because I can help improve the brand and its products

I like to know that my comments and suggestions can influence the brand and its products

Increasing the influence I have on the brand and its products makes me want to participate more in this brand community

I hope to improve the brand or product through my participation and expression in this brand community

Brand passion

I am motivated to participate in this brand community because I am passionate about the brand

I participate in this brand community because I care about the brand

I would not belong to a brand community if I did not have passion for the brand

My passion for this brand's products makes me want to participate in this brand community

Connecting

Increasing the strength of the connection I have with this brand community makes me want to participate more in the community

Being part of this brand community makes me feel more connected to the brand

Being part of this brand community makes me feel more connected to other consumers of the brand

Helping

I like participating in the brand community because I can use my experience to help other people

I like to share my experience and knowledge with others in this brand community to help them be more educated about the brand

I really like helping other community members with their questions

I feel good when I can help answer other community member's questions

Like-minded discussion

I look forward to discussing my opinions about the brand with others who share the same interest as me

I enjoy conversing with people similar to myself in this brand community

I look to this brand community when I want to discuss a topic with people who have similar interests

Having conversations with people in this brand community who share the same views about this brand is important to me

Rewards (Hedonic)

I like participating in this brand community because it is entertaining

Having fun is my main reason for participating in this brand community

I participate in this brand community because I think it is fun

I find participating in this brand community to be very entertaining

Rewards (utilitarian)

I am motivated to participate in this brand community because I can earn money

If it weren't for the money, I wouldn't participate in this brand community

Receiving more money makes me want to participate more in this brand community

Seeking assistance

I am motivated to participate in this brand community because I can receive help from other community members

I am motivated to participate in this brand community because community members can use their knowledge to help me

I like participating in this brand community because it gives me an opportunity to receive help from other community members

It is important to me to be able to use this community to find answers to my questions about the brand

Self-expression

I feel that I can freely share my interests in the brand community

I would express any opinion or idea I had about this brand in this brand community

I can always be myself when interacting with others in this community

This community makes it easy for me to express my true beliefs about the brand

Up-to-date information

This brand community is my critical connection for new and important information about the brand and its products

When I want up-to-date information about this brand, I look to this brand community

This community keeps me on the leading edge of information about the brand

This community is the best way to stay informed about new developments with this brand

Validation

Receiving more affirmation of the value of my comments, makes me want to participate more in the brand community

I feel good about myself when other community members share my ideas

I appreciate when others agree with the ideas I express in this brand community

When others support my ideas and opinions in this brand community, I feel better about myself

Consumer engagement with a website - Calder, Malthouse and Schaedel (2009)

Stimulation and Inspiration

It inspires me in my own life.

This site makes me think of things in new ways.

This site stimulates my thinking about lots of different topics.

This site makes me a more interesting person.

Some stories on this site touch me deep down.

Social Facilitation

I bring up things I have seen on this site in conversations with many other people.

This site often gives me something to talk about.

I use things from this site in discussions or arguments with people I know.

Temporal

It's part of my routine.

This is one of the sites I always go to anytime I am surfing the web.

I use it as a big part of getting my news for the day.

It helps me to get my day started in the morning.

Self-Esteem and Civic Mindedness

Using this site makes me feel like a better citizen.

Using this site makes a difference in my life.

This site reflects my values.

It makes me more a part of my community.

I am a better person for using this site.

Intrinsic Enjoyment

It's a treat for me.

Going to this site improves my mood, makes me happier.

I like to kick back and wind down with it.

I like to go to this site when I am eating or taking a break.

While I am on this site, I don't think about other sites I might go to.

Utilitarian

This site helps me make good purchase decisions.

You learn how to improve yourself from this site.

This site provides information that helps me make important decisions.

This site helps me better manage my money.

I give advice and tips to people I know based on things I've read on this site.

Participation and Socializing

I do quite a bit of socializing on this site.

I contribute to the conversation on this site.

I often feel guilty about the amount of time I spend on this site socializing.

I should probably cut back on the amount of time I spend on this site socializing.

Community

I'm as interested in input from other users as

I am in the regular content on this site.

A big reason I like this site is what I get from other users.

This site does a good job of getting its visitors to contribute or provide feedback.

I'd like to meet other people who regularly visit this site.

I've gotten interested in things I otherwise wouldn't have because of others on this site.

Overall, the visitors to this site are pretty knowledgeable about the topics it covers so you can learn from them.

Consumer Engagement – Dessart, Veloutsou, and Morgan-Thomas (2016)Enthusiasm

I feel enthusiastic about (engagement focus – hereafter EF)

I am interested in anything about (EF)

I find (EF) interesting

Enjoyment

When interacting with (EF), I feel happy

I get pleasure from interacting with (EF)

Interacting with (EF) is like a treat for me

Attention

I spend a lot of time thinking about (EF)

I make time to think about (EF)

Absorption

When interacting with (EF), I forget everything else around me

Time flies when I am interacting with (EF)

When I am interacting with (EF), I get carried away

When interacting with (EF), it is difficult to detach myself

Sharing

I share my ideas with (EF)

I share interesting content with (EF)

I help (EF)

Learning

I ask (EF) questions

I seek ideas or information from (EF)

I seek help from (EF)

Endorsing

I promote (EF)

I try to get other interested in (EF)

I actively defend (EF) from its critics

I say positive things about (EF) to other people

Consumers' engagement in a company's social media activities - Dijkmans, Kerkhof, and Beukeboom (2015)

Engagement is measured by two aspects: familiarity with KLM's social media activities and following of KLM on social media sites:

- What extent you are familiar with the company's social media activities, on a 4-point scale (ranging from 1 ¼ “Not familiar”, 2 ¼ “Somewhat familiar”, 3 ¼ “Familiar” and 4 ¼ “Very familiar”).
- On which social networking sites do you follow KLM?. Facebook and Twitter are among the answer options.

The answers to these two questions were combined to reflect the participants' level of engagement, resulting in a classification of three groups:

- Low engagement group: Participants who were not familiar with the company's social media activities, and who were not following the company on Facebook and/or Twitter.
- Medium engagement group: Participants who were somewhat to very familiar with the company's social media activities, but who were not following the company on Facebook and/or Twitter.
- High engagement group: Participants who were somewhat to very familiar with the company's social media activities, and who were following the company on Facebook and/or Twitter.

Consumer Brand Engagement Scale - Hollebeek, Glynn, and Brodie (2014)

Cognitive processing

I spend a lot of time using [brand], compared to other [category] brands.

Whenever I'm using [category], I usually use [brand].

[Brand] is one of the brands I usually use when I use [category].

Affection

Using [brand] gets me to think about [brand].

I think about [brand] a lot when I'm using it.

Using [brand] stimulates my interest to learn more about [brand].

Activation

I feel very positive when I use [brand].

Using [brand] makes me happy.

I feel good when I use [brand].

I'm proud to use [brand].

Consumer engagement with social media brand-related content - Schivinski, Christodoulides, and Dabrowski (2016)

Consumption

I read posts related to Brand X on social media.
 I read fan page(s) related to Brand X on social networking sites.
 I watch pictures/graphics related to Brand X.
 I follow blogs related to Brand X.
 I follow Brand X on social networking sites.

Contribution

I comment on videos related to Brand X.
 I comment on posts related to Brand X.
 I comment on pictures/graphics related to Brand X.
 I share Brand X related posts.
 I "Like" pictures/graphics related to Brand X.
 I "Like" posts related to Brand X.

Creation

I initiate posts related to Brand X on blogs.
 I initiate posts related to Brand X on social networking sites.
 I post pictures/graphics related to Brand X.
 I post videos that show Brand X.
 I write posts related to Brand X on forums.
 I write reviews related to Brand X.

So, King, and Sparks (2014)

Identification

When someone criticizes this brand, it feels like a personal insult
 When I talk about this brand, I usually say we rather than they
 This brand's successes are my successes
 When someone praises this brand, it feels like a personal compliment

Enthusiasm

I am heavily into this brand
 I am passionate about this brand
 I am enthusiastic about this brand
 I feel excited about this brand
 I love this brand

Attention

I like to learn more about this brand
 I pay a lot of attention to anything about this brand
 Anything related to this brand grabs my attention
 I concentrate a lot on this brand
 I like learning more about this brand

Absorption

When I am interacting with the brand, I forget everything else around me
 Time flies when I am interacting with the brand
 When I am interacting with brand, I get carried away
 When interacting with the brand, it is difficult to detach myself

In my interaction with the brand, I am immersed
 When interacting with the brand intensely, I feel happy

Interaction

In general, I like to get involved in brand community discussions
 I am someone who enjoys interacting with like-minded others in the brand community
 I am someone who likes actively participating in brand community discussions
 In general, I thoroughly enjoy exchanging ideas with other people in the brand community
 I often participate in activities of the brand community

Customer brand engagement - Solem and Pedersen (2016)

Psychological CBE was measured on a 7-point Likert scale with items reflecting the three dimensions of this construct: emotion ('This brand post evoked my feelings'), cognition ('This brand post evoked my interest') and behavioral intention ('I really would like to comment on this post', 'I really would like to share this post with others', 'This post was so special that I would share it with others') (Hollebeek et al., 2014; Solem & Pedersen, 2015). Weighted average scores of the items measuring each CBE dimension were calculated. Behavioral CBE was measured by registration of 'likes' (yes/no) and comments (yes/no).

Brand engagement in self-concept (BESC) - Sprott, Czellar, and Spangenberg (2009)

I have a special bond with the brands that I like.
 I consider my favorite brands to be a part of myself.
 I often feel a personal connection between my brands and me.
 Part of me is defined by important brands in my life.
 I feel as if I have a close personal connection with the brands I most prefer.
 I can identify with important brands in my life.
 There are links between the brands that I prefer and how I view myself.
 My favorite brands are an important indication of who I am.

Consumer engagement - Tsai and Men (2013)

How often you participated in the following activities on brands' Facebook pages:

Consuming

Viewing pictures on companies' Facebook pages
 Reading companies' posts, user comments, or product reviews
 Watching videos on companies' Facebook pages
 Liking/joining a companies' Facebook pages (e.g., becoming a fan of or following)

Contributing

Engaging in conversations on companies' Facebook pages (e.g., commenting, asking, and answering questions)
 Sharing companies' Facebook posts on my own Facebook page (e.g., videos, audios, pictures, texts)
 Recommending companies' Facebook pages to my Facebook contacts
 Uploading product-related videos, audios, pictures, or images

Customer Engagement Behaviors - Verleye, Gemmel, and Rangarajan (2016)

Helping other customers

NHRs (nursing home residents) assist other customers in finding their way within the nursing home

NHRs help other customers if necessary

NHRs explain to other customers which services are provided by the organization

Cooperation

NHRs do things to make the personnel's job easier

Employees of this nursing home get full cooperation from NHRs

NHRs try to help the service provider to deliver the best possible treatment

Giving feedback

NHRs let this organization know of ways to better serve their needs

NHRs inform nursing home personnel if they experience a problem

NHRs make constructive suggestions to this organization to improve its service

NHRs give useful ideas to the nursing home personnel

Positive word-of-mouth

NHRs recommend this nursing home to people interested in nursing homes

NHRs recommend this nursing home to family and friends

NHRs say positive things about this nursing home to others

Customer Engagement Scale - Vivek, Beatty, Daieia, and Morgan (2014)

Conscious Attention

Anything related to ___ grabs my attention.

I like to learn more about ___.

I pay a lot of attention to anything about _ .

Enthusied Participation

I spend a lot of my discretionary time___.

I am heavily into___.

I am passionate about___.

My days would not be the same without_.

Social Connection

I love ___ with my friends.

I enjoy ___ more when I am with others.

___ is more fun when other people around me do it too.

Appendix 5 - scales translation and adaptation for the pretest and survey (Article 2)

ORIGINAL SCALES		CODE	TRANSLATED ITEMS
Consumer Engagement – Dessart, Veloutsou, and Morgan-Thomas (2016)			
Affective	<u>Enthusiasm</u>		
	I feel enthusiastic about (engagement focus – hereafter EF)	Ent1	Eu me sinto entusiasmado por publicações relacionadas à Marca X no Facebook.
	I am interested in anything about (EF)	Ent2	Eu me interessar por qualquer coisa relacionada à Marca X no Facebook.
	I find (EF) interesting	Ent3	Publicações relacionadas à Marca X no Facebook despertam meu interesse.
	<u>Enjoyment</u>		
	When interacting with (EF), I feel happy	Enj1	Interagir com publicações relacionadas à Marca X no Facebook me deixa feliz.
	I get pleasure from interacting with (EF)	Enj2	Tenho prazer em interagir com publicações relacionadas à Marca X no Facebook.
	Interacting with (EF) is like a treat for me	Enj3	Interagir com publicações relacionadas à Marca X no Facebook é uma grande satisfação para mim.
Cognitive	<u>Attention</u>		
	I spend a lot of time thinking about (EF)	Att1	Eu gasto muito tempo pensando sobre o que vejo no Facebook relacionado à Marca X.
	I make time to think about (EF)	Att2	Eu dedico tempo para pensar sobre aquilo que vejo relacionado à Marca X no Facebook.
	<u>Absorption</u>		
	When interacting with (EF), I forget everything else around me	Abs1	Quando estou interagindo com publicações relacionadas à Marca X no Facebook, eu esqueço tudo à minha volta.
	Time flies when I am interacting with (EF)	Abs2	O tempo voa quando interajo com publicações relacionadas à Marca X no Facebook.
	When I am interacting with (EF), I get carried away	Abs3	Quando estou interagindo com publicações relacionadas à Marca X no Facebook, sou levado pelo tempo.
	When interacting with (EF), it is difficult to detach myself	Abs4	Quando interajo com publicações relacionadas à Marca X no Facebook, é difícil parar.
Behavioral	<u>Sharing</u>		
	I share my ideas with (EF)	Sha1	Eu compartilho minhas ideias relacionadas à Marca X no Facebook.
	I share interesting content with (EF)	Sha2	Eu compartilho conteúdo interessante relacionado à Marca X no Facebook.
	I help (EF)	Sha3	Eu ajudo a Marca X no Facebook.
	<u>Learning</u>		
	I ask (EF) questions	Lea1	Eu faço perguntas relacionadas à Marca X no Facebook.
	I seek ideas or information from (EF)	Lea2	Eu busco informações relacionadas à Marca X no Facebook.
	I seek help from (EF)	Lea3	Eu busco ajuda relacionada à Marca X no Facebook.
	<u>Endorsing</u>		
	I promote (EF)	End1	Eu falo bem sobre a Marca X no Facebook.
	I try to get other interested in (EF)	End2	Eu tento convencer pessoas a gostar da Marca X no Facebook.
	I actively defend (EF) from its critics	End3	Eu defendo ativamente a Marca X no Facebook de seus críticos.
	I say positive things about (EF) to other people	End4	Eu digo coisas positivas sobre a Marca X no Facebook para as outras pessoas.

Appendix 5 (continuation)

ORIGINAL SCALES	CODE	TRANSLATED ITEMS
Consumer Brand Engagement Scale - Hollebeek, Glynn, and Brodie (2014)		
<u>Activation</u>		
I spend a lot of time using [brand], compared to other [category] brands.	Act1	Eu gasto bastante tempo interagindo com publicações relacionadas à Marca X no Facebook, comparando com marcas concorrentes.
Whenever I'm using [category], I usually use [brand].	Act2	Eu geralmente interajo com publicações relacionadas à Marca X, sempre que quero produtos / serviços do mesmo gênero no Facebook.
[Brand] is one of the brands I usually use when I use [category].	Act3	Publicações relacionadas à Marca X é uma das marcas que geralmente interajo para produtos / serviços do mesmo gênero no Facebook.
<u>Cognitive processing</u>		
Using [brand] gets me to think about [brand].	CP1	Ver algo relacionado à Marca X no Facebook me faz pensar sobre ela.
I think about [brand] a lot when I'm using it.	CP2	Eu penso muito sobre a Marca X quando vejo algo relacionado a ela no Facebook.
Using [brand] stimulates my interest to learn more about [brand].	CP3	Ver algo relacionado à Marca X no Facebook estimula meu interesse em aprender mais sobre ela.
<u>Affection</u>		
I feel very positive when I use [brand].	Aff1	Eu me sinto muito positivo quando vejo algo relacionado à Marca X no Facebook.
Using [brand] makes me happy.	Aff2	Ver algo relacionado à Marca X no Facebook me deixa feliz.
I feel good when I use [brand].	Aff3	Eu me sinto bem quando vejo algo relacionado à Marca X no Facebook.
I'm proud to use [brand].	Aff4	Tenho orgulho quando vejo algo relacionado à Marca X no Facebook.
Customer Engagement Scale - Vivek, Beatty, Daieia, and Morgan (2014)		
<u>Conscious Attention</u>		
Anything related to __ grabs my attention.	CA1	Publicações relacionadas à Marca X no Facebook prendem minha atenção.
I like to learn more about__.	CA2	Gosto de aprender mais sobre a Marca X no Facebook.
I pay a lot of attention to anything about _ .	CA3	Presto bastante atenção às publicações relacionadas à Marca X no Facebook.
<u>Enthusied Participation</u>		
I spend a lot of my discretionary time__.	EP1	Eu passo muito do meu tempo livre interagindo (lendo, curtindo, comentando ou compartilhando) com publicações relacionadas à Marca X no Facebook.
I am heavily into__.	EP2	Sou bastante envolvido(a) com publicações relacionadas à Marca X no Facebook.
I am passionate about__.	EP3	Sou apaixonado(a) por publicações relacionadas à Marca X no Facebook.
My days would not be the same without_.	EP4	Meus dias não seriam os mesmos sem as publicações relacionadas à Marca X no Facebook.
<u>Social Connection</u>		
I love __ with my friends.	SC1	Eu gosto mais das publicações relacionadas à Marca X no Facebook quando meus amigos também estão interagindo.
I enjoy __ more when I am with others.	SC2	Eu gosto mais das publicações relacionadas à Marca X no Facebook quando há outras pessoas interagindo.
__is more fun when other people around me do it too.	SC3	As publicações relacionadas à Marca X no Facebook são mais divertidas quando outras pessoas também participam da interação.

Appendix 6 - pretest and final research instrument (Article 2)

<p>Prezado(a),</p> <p>A VIDI SHOPPER, em parceria com a FGV, está realizando uma pesquisa sobre a interação dos consumidores com marcas no Facebook e contamos contigo no preenchimento deste questionário até o dia 21/02/2017.</p> <p>Não existe resposta certa ou errada, e suas respostas serão tratadas de forma anônima e confidencial.</p> <p>Agradecemos antecipadamente a sua participação.</p> <p>VIDI e FGV</p>
<p>1. Com que frequência você usa o Facebook? (Caso você não possua perfil no Facebook, você pode encerrar sua participação nesta pergunta).</p> <p> <input type="radio"/> Diariamente <input type="radio"/> 4-6 vezes por semana <input type="radio"/> 2-3 vezes por semana <input type="radio"/> 1 vez por semana <input type="radio"/> Menos de 1 vez por semana </p>
<p>2. Escreva o nome de 1 (UMA) MARCA que você costuma interagir no Facebook. Escolha aquela que você mais interage (ex.: Apple, Fiat, Globo, Nike, clube de futebol etc). (Entenda "INTERAGIR" como visualizar, curtir, comentar ou compartilhar publicações relacionadas à marca, <u>elaboradas ou não por ela</u>). (Marca é um nome, termo, sinal, símbolo, desenho ou combinação desses elementos que deve identificar os bens ou serviços de um fornecedor, diferenciando-o dos concorrentes (Keller, 2005)).</p> <p> <input type="radio"/> Sim <input type="radio"/> Não </p>
<p>3. Você interagiu via Facebook com a Marca indicada na questão anterior nos últimos 30 dias? (Entenda "INTERAGIR" como visualizar, curtir, comentar ou compartilhar publicações relacionadas à marca, <u>elaborados por ela ou não</u>).</p> <div style="border: 1px solid black; height: 20px; width: 100%;"></div>
<p>4. Você segue a página oficial da Marca no Facebook (indicada na questão 2)?</p> <p> <input type="radio"/> Sim <input type="radio"/> Não </p>
<p>5. Você comprou algum produto ou serviço desta Marca nos últimos 6 meses?</p> <p> <input type="radio"/> Sim <input type="radio"/> Não </p>

Appendix 6 (continuation)

ORIENTAÇÕES GERAIS	
De agora em diante, faremos referência à marca escolhida e citada nos itens anteriores como sendo 'Marca X'.	
Por favor, avalie o seu grau de concordância com as afirmações a seguir, marcando as opções que melhor representem a sua opinião. Essas <u>afirmações se referem à sua interação com publicações relacionadas à Marca X no Facebook, sejam publicações elaboradas ou não pela marca.</u>	
Eu me sinto entusiasmado por publicações relacionadas à Marca X no Facebook.	Discordo totalmente ○ ○ ○ ○ ○ Concordo totalmente
Eu dedico tempo para pensar sobre aquilo que vejo relacionado à Marca X no Facebook.	Discordo totalmente ○ ○ ○ ○ ○ Concordo totalmente
Eu busco informações relacionadas à Marca X no Facebook.	Discordo totalmente ○ ○ ○ ○ ○ Concordo totalmente
Eu ajudo a Marca X no Facebook.	Discordo totalmente ○ ○ ○ ○ ○ Concordo totalmente
Quando estou interagindo com publicações relacionadas à Marca X no Facebook, eu esqueço tudo à minha volta.	Discordo totalmente ○ ○ ○ ○ ○ Concordo totalmente
Eu busco ajuda relacionada à Marca X no Facebook.	Discordo totalmente ○ ○ ○ ○ ○ Concordo totalmente
Interagir com publicações relacionadas à Marca X no Facebook é uma grande satisfação para mim.	Discordo totalmente ○ ○ ○ ○ ○ Concordo totalmente
Eu falo bem sobre a Marca X no Facebook.	Discordo totalmente ○ ○ ○ ○ ○ Concordo totalmente
Eu tento convencer pessoas a gostar da Marca X no Facebook.	Discordo totalmente ○ ○ ○ ○ ○ Concordo totalmente
Eu me interessar por qualquer coisa relacionada à Marca X no Facebook.	Discordo totalmente ○ ○ ○ ○ ○ Concordo totalmente
Eu gasto muito tempo pensando sobre o que vejo no Facebook relacionado à Marca X.	Discordo totalmente ○ ○ ○ ○ ○ Concordo totalmente
Quando estou interagindo com publicações relacionadas à Marca X no Facebook, sou levado pelo tempo.	Discordo totalmente ○ ○ ○ ○ ○ Concordo totalmente
Eu compartilho minhas ideias relacionadas à Marca X no Facebook.	Discordo totalmente ○ ○ ○ ○ ○ Concordo totalmente
O tempo voa quando interajo com publicações relacionadas à Marca X no Facebook.	Discordo totalmente ○ ○ ○ ○ ○ Concordo totalmente
Quando interajo com publicações relacionadas à Marca X no Facebook, é difícil parar.	Discordo totalmente ○ ○ ○ ○ ○ Concordo totalmente
Publicações relacionadas à Marca X no Facebook despertam meu interesse.	Discordo totalmente ○ ○ ○ ○ ○ Concordo totalmente
Eu faço perguntas relacionadas à Marca X no Facebook.	Discordo totalmente ○ ○ ○ ○ ○ Concordo totalmente
Interagir com publicações relacionadas à Marca X no Facebook me deixa feliz.	Discordo totalmente ○ ○ ○ ○ ○ Concordo totalmente
O Facebook é uma das mídias sociais mais usadas no Brasil.	Discordo totalmente ○ ○ ○ ○ ○ Concordo totalmente
Tenho prazer em interagir com publicações relacionadas à Marca X no Facebook.	Discordo totalmente ○ ○ ○ ○ ○ Concordo totalmente
Eu compartilho conteúdo interessante relacionado à Marca X no Facebook.	Discordo totalmente ○ ○ ○ ○ ○ Concordo totalmente
Gosto quando a Marca X me engana.	Discordo totalmente ○ ○ ○ ○ ○ Concordo totalmente
Eu defendo ativamente a Marca X no Facebook de seus críticos.	Discordo totalmente ○ ○ ○ ○ ○ Concordo totalmente

Appendix 6 (continuation)

Está quase acabando . Por favor, avalie o seu grau de concordância com as últimas afirmações .	
Eu me sinto muito positivo quando vejo algo relacionado à Marca X no Facebook.	Discordo totalmente ○ ○ ○ ○ ○ Concordo totalmente
Tenho orgulho quando vejo algo relacionado à Marca X no Facebook.	Discordo totalmente ○ ○ ○ ○ ○ Concordo totalmente
Ver algo relacionado à Marca X no Facebook estimula meu interesse em aprender mais sobre ela.	Discordo totalmente ○ ○ ○ ○ ○ Concordo totalmente
Eu gasto bastante tempo interagindo com publicações relacionadas à Marca X no Facebook, comparando com marcas concorrentes.	Discordo totalmente ○ ○ ○ ○ ○ Concordo totalmente
Eu gosto mais das publicações relacionadas à Marca X no Facebook quando há outras pessoas interagindo.	Discordo totalmente ○ ○ ○ ○ ○ Concordo totalmente
Meus dias não seriam os mesmos sem as publicações relacionadas à Marca X no Facebook.	Discordo totalmente ○ ○ ○ ○ ○ Concordo totalmente
Interajo com outras pessoas no Facebook.	Discordo totalmente ○ ○ ○ ○ ○ Concordo totalmente
Sou apaixonado(a) por publicações relacionadas à Marca X no Facebook.	Discordo totalmente ○ ○ ○ ○ ○ Concordo totalmente
Publicações relacionadas à Marca X é uma das marcas que geralmente interajo para produtos / serviços do mesmo gênero no Facebook.	Discordo totalmente ○ ○ ○ ○ ○ Concordo totalmente
Eu me sinto bem quando vejo algo relacionado à Marca X no Facebook.	Discordo totalmente ○ ○ ○ ○ ○ Concordo totalmente
Ver algo relacionado à Marca X no Facebook me deixa feliz.	Discordo totalmente ○ ○ ○ ○ ○ Concordo totalmente
Gosto de aprender mais sobre a Marca X no Facebook.	Discordo totalmente ○ ○ ○ ○ ○ Concordo totalmente
Eu gosto mais das publicações relacionadas à Marca X no Facebook quando meus amigos também estão interagindo.	Discordo totalmente ○ ○ ○ ○ ○ Concordo totalmente
Ver algo relacionado à Marca X no Facebook me faz pensar sobre ela.	Discordo totalmente ○ ○ ○ ○ ○ Concordo totalmente
Presto bastante atenção às publicações relacionadas à Marca X no Facebook.	Discordo totalmente ○ ○ ○ ○ ○ Concordo totalmente
Eu penso muito sobre a Marca X quando vejo algo relacionado a ela no Facebook.	Discordo totalmente ○ ○ ○ ○ ○ Concordo totalmente
Eu digo coisas positivas sobre a Marca X no Facebook para as outras pessoas.	Discordo totalmente ○ ○ ○ ○ ○ Concordo totalmente
Fico feliz quando a Marca X faz mal às pessoas.	Discordo totalmente ○ ○ ○ ○ ○ Concordo totalmente
Eu passo muito do meu tempo livre interagindo (lendo, curtindo, comentando ou compartilhando) com publicações relacionadas à Marca X no Facebook.	Discordo totalmente ○ ○ ○ ○ ○ Concordo totalmente
Eu geralmente interajo com publicações relacionadas à Marca X, sempre que quero produtos / serviços do mesmo gênero no Facebook.	Discordo totalmente ○ ○ ○ ○ ○ Concordo totalmente
Publicações relacionadas à Marca X no Facebook prendem minha atenção.	Discordo totalmente ○ ○ ○ ○ ○ Concordo totalmente
Sou bastante envolvido(a) com publicações relacionadas à Marca X no Facebook.	Discordo totalmente ○ ○ ○ ○ ○ Concordo totalmente
As publicações relacionadas à Marca X no Facebook são mais divertidas quando outras pessoas também participam da interação.	Discordo totalmente ○ ○ ○ ○ ○ Concordo totalmente

Appendix 6 (continuation)

Gênero
<input type="radio"/> Masculino <input type="radio"/> Feminino
Idade (apenas números)
<input type="text"/>
Estado civil
<input type="radio"/> Solteiro(a) <input type="radio"/> Casado(a) <input type="radio"/> Separado(a) / divorciado(a) / desquitado(a) <input type="radio"/> Viúvo(a)
Escolaridade
<input type="radio"/> Ensino fundamental incompleto <input type="radio"/> Ensino fundamental completo <input type="radio"/> Ensino médio incompleto <input type="radio"/> Ensino médio completo <input type="radio"/> Superior incompleto <input type="radio"/> Superior completo <input type="radio"/> Pós-graduado(a)
Renda familiar mensal
<input type="radio"/> Abaixo de R\$ 1.760,00 <input type="radio"/> Entre R\$ 1.760,0 e R\$ 3.520,00 <input type="radio"/> Entre R\$ 3.520,01 e R\$ 8.800,00 <input type="radio"/> Entre R\$ 8.800,01 e 17.600,00 <input type="radio"/> Acima de R\$ 17.600,00
Número de pessoas na sua residência (apenas número)
<input type="text"/>

Appendix 7 - scales translation and adaptation for the pretest and survey (Article 3)

ORIGINAL SCALES	CODE	TRANSLATED ITEMS
Brand engagement in self-concept (Sprott, Czellar, & Spangenberg, 2009)		
I have a special bond with the brands that I like.	Besc1	Eu tenho uma conexão especial com as marcas que eu gosto.
I consider my favorite brands to be a part of myself.	Besc2	Minhas marcas favoritas são como uma parte de mim mesmo.
I often feel a personal connection between my brands and me.	Besc3	Eu geralmente sinto uma conexão pessoal entre minhas marcas e eu.
Part of me is defined by important brands in my life.	Besc4	Parte de mim é definida pelas marcas importantes na minha vida.
I feel as if I have a close personal connection with the brands I most prefer.	Besc5	Eu sinto como se tivesse uma conexão pessoal com as marcas que mais gosto.
I can identify with important brands in my life.	Besc6	Eu me identifico com marcas importantes na minha vida.
There are links between the brands that I prefer and how I view myself.	Besc7	Existe relação entre as marcas que gosto e a forma como eu me vejo.
My favorite brands are an important indication of who I am.	Besc8	Minhas marcas favoritas são uma importante indicação de quem eu sou.
Customer Engagement (Vivek, Beatty, Dalela, & Morgan, 2014)		
Conscious Attention		
Anything related to __ grabs my attention.	CA1	Publicações relacionadas à Marca X no Facebook prendem minha atenção.
I like to learn more about __.	CA2	Gosto de aprender mais sobre a Marca X no Facebook.
I pay a lot of attention to anything about __.	CA3	Presto bastante atenção às publicações relacionadas à Marca X no Facebook.
Enthusied Participation		
I spend a lot of my discretionary time __.	EP1	Eu passo muito do meu tempo livre interagindo (lendo, curtindo, comentando ou compartilhando) com publicações relacionadas à Marca X no Facebook.
I am heavily into __.	EP2	Sou fortemente envolvido(a) com publicações relacionadas à Marca X no Facebook.
I am passionate about __.	EP3	Fico entusiasmado(a) com publicações relacionadas à Marca X no Facebook.
My days would not be the same without __.	EP4	Meus dias não seriam os mesmos sem as publicações relacionadas à Marca X no Facebook.
Social Connection		
I love __ with my friends.	SC1	Eu gosto mais das publicações relacionadas à Marca X no Facebook quando meus amigos também estão interagindo.
I enjoy __ more when I am with others.	SC2	Eu gosto mais das publicações relacionadas à Marca X no Facebook quando há outras pessoas interagindo.
__ is more fun when other people around me do it too.	SC3	As publicações relacionadas à Marca X no Facebook são mais divertidas quando outras pessoas também participam da interação.
Corporate Reputation (Nguyen & Leblanc, 2001; Ponzi, Fombrun, & Gardberg, 2011)		
[Company] is a company that I trust.	Rep1	A Marca X é uma empresa em que eu confio.
[Company] has a good overall reputation.	Rep2	A Marca X tem uma boa reputação geral.
In general, I believe that __ always fulfills the promises that it makes to its customers.	Rep3	Em geral, eu acredito que a Marca X sempre cumpre as promessas que faz aos seus clientes.
__ has a good reputation.	Rep4	Considero que a reputação da Marca X é boa.
Perceived Value (Kim, Kim, & Wachter, 2013)		
Using mobile technology is an enjoyable experience.	PV1	Interagir com a Marca X no Facebook é uma experiência agradável.
The overall value of my experience using mobile technology is outstanding.	PV2	O valor total da minha interação com a Marca X no Facebook é excelente.
Mobile technology represents good use of my time and money.	PV3	Interagir com a Marca X no Facebook representa um bom uso do meu tempo.

Appendix 8 - pretest and final research instrument with Americans (Article 3)

We are conducting a **survey on the interaction of consumers with brands on Facebook** and we count on you to fill out this questionnaire until 05/29/2017.

If you fail to answer the questions that check your attention, were not born in the United States or do not have an active Facebook profile, you will be directed to the end of survey and will not be rewarded.

Thanks for your participation.

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1. How often do you use Facebook?

(If you do not have a Facebook profile, you should stop responding to this survey)

- ☐ Daily
- ☐ 4-6 times a week
- ☐ 2-3 times a week
- ☐ Once a week
- ☐ Never

2. Write the name of **1 (ONE) BRAND** that you usually interact with on Facebook.

Choose the one you most interact with (e.g., Budweiser, Nike, Apple, or other).

(Understand "interact" with viewing, liking, commenting, or sharing brand-related publications, whether or not they are made).

3. Have you interacted via Facebook with the Brand indicated in question 2 **in the last 15 days**?

- ☐ Yes
- ☐ No

4. Do you **follow the official Brand page** indicated in question 2 on Facebook?

- ☐ Yes
- ☐ No

5. Have you purchased any product or service of the Brand indicated in question 2 **in the last 3 months**?

- ☐ Yes
- ☐ No

Appendix 8 (continuation)

GUIDELINES	
From now on, we will refer to the brand you indicated in question 2 as '[Brand]'.	
Please rate your level of agreement with the following statements by selecting the options that best represent your opinion.	
Publications related to the [Brand] community on Facebook grabs my attention.	Strongly disagree ○ ○ ○ ○ ○ ○ ○ Strongly agree
I like to learn more about [Brand] through its Facebook community.	Strongly disagree ○ ○ ○ ○ ○ ○ ○ Strongly agree
I pay a lot of attention to the publications related to the [Brand] community on Facebook.	Strongly disagree ○ ○ ○ ○ ○ ○ ○ Strongly agree
I spend a lot of my discretionary time interacting with [Brand] community on Facebook.	Strongly disagree ○ ○ ○ ○ ○ ○ ○ Strongly agree
I am heavily into [Brand] community on Facebook.	Strongly disagree ○ ○ ○ ○ ○ ○ ○ Strongly agree
I am passionate about publications on [Brand] community on Facebook.	Strongly disagree ○ ○ ○ ○ ○ ○ ○ Strongly agree
My days would not be the same without the [Brand] community on Facebook.	Strongly disagree ○ ○ ○ ○ ○ ○ ○ Strongly agree
I like to interact with the [Brand] community on Facebook when my friends are also interacting.	Strongly disagree ○ ○ ○ ○ ○ ○ ○ Strongly agree
I enjoy [Brand] community on Facebook more when there are other people interacting.	Strongly disagree ○ ○ ○ ○ ○ ○ ○ Strongly agree
It is more fun to interact with the [Brand] community on Facebook when other people participate in the interaction.	Strongly disagree ○ ○ ○ ○ ○ ○ ○ Strongly agree
[Brand] is a company that I trust.	Strongly disagree ○ ○ ○ ○ ○ ○ ○ Strongly agree
[Brand] has a good overall reputation.	Strongly disagree ○ ○ ○ ○ ○ ○ ○ Strongly agree
In general, I believe that [Brand] always fulfills the promises it makes to its customers.	Strongly disagree ○ ○ ○ ○ ○ ○ ○ Strongly agree
[Brand] has a good reputation.	Strongly disagree ○ ○ ○ ○ ○ ○ ○ Strongly agree
Interacting with publications related to [Brand] on Facebook is an enjoyable experience.	Strongly disagree ○ ○ ○ ○ ○ ○ ○ Strongly agree
The overall value of my experience with publications related to [Brand] on Facebook is outstanding.	Strongly disagree ○ ○ ○ ○ ○ ○ ○ Strongly agree
Interacting with publications related to [Brand] on Facebook represents a good use of my time.	Strongly disagree ○ ○ ○ ○ ○ ○ ○ Strongly agree
Answer strongly agree (attention check).	Strongly disagree ○ ○ ○ ○ ○ ○ ○ Strongly agree
Answer strongly disagree (attention check).	Strongly disagree ○ ○ ○ ○ ○ ○ ○ Strongly agree
Answer Neither agree nor disagree (attention check).	Strongly disagree ○ ○ ○ ○ ○ ○ ○ Strongly agree
English is my first language.	Strongly disagree ○ ○ ○ ○ ○ ○ ○ Strongly agree
I am happy when [Brand] hurts people.	Strongly disagree ○ ○ ○ ○ ○ ○ ○ Strongly agree

Appendix 8 (continuation)

Please now indicate your level of agreement with the statements about your feeling or interaction with brands in general.	
I have a special bond with the brands that I like.	Strongly disagree <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Strongly agree
I consider my favorite brands to be a part of myself.	Strongly disagree <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Strongly agree
I often feel a personal connection between my brands and me.	Strongly disagree <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Strongly agree
Part of me is defined by important brands in my life.	Strongly disagree <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Strongly agree
I feel as if I have a close personal connection with the brands I most prefer.	Strongly disagree <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Strongly agree
I can identify with important brands in my life.	Strongly disagree <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Strongly agree
There are links between the brands that I prefer and how I view myself.	Strongly disagree <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Strongly agree
My favorite brands are an important indication of who I am.	Strongly disagree <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Strongly agree
Answer strongly agree.	Strongly disagree <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Strongly agree
I like when my favorite brands deceive me.	Strongly disagree <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Strongly agree

Approximately, when was the last time you interacted with [Brand] on Facebook?

Considering your latest purchase, approximately how long have you purchased any product or service from [Brand].

How often do you use Facebook to read messages or comments?

- ☐ Daily
☐ 4-6 times a week
☐ 2-3 times a week
☐ Once a week
☐ Never

How often do you post messages or comments on Facebook?

- ☐ Daily
☐ 4-6 times a week
☐ 2-3 times a week
☐ Once a week
☐ Never

Appendix 8 (continuation)

Gender
<input type="radio"/> Male <input type="radio"/> Female
Age (numbers only)
<input type="text"/>
Marital status
<input type="radio"/> Never married <input type="radio"/> Married <input type="radio"/> Divorced or Separated <input type="radio"/> Widower
Education
<input type="radio"/> Less than high school <input type="radio"/> High school graduate <input type="radio"/> Some college <input type="radio"/> 2 year degree <input type="radio"/> 4 year degree <input type="radio"/> Professional degree <input type="radio"/> Doctorate
Country of residence
<input type="text"/>
Monthly household income
<input type="radio"/> Less than \$600.00 <input type="radio"/> \$600.00 - \$1,199.99 <input type="radio"/> \$1,200.00 - \$2,999.99 <input type="radio"/> \$3,000.00 - \$5,999.99 <input type="radio"/> \$6,000.00 - \$11,999.99 <input type="radio"/> \$12,000.00 - \$25,000.00 <input type="radio"/> More than \$25,000.00
Number of people in your household (number only)
<input type="text"/>

Appendix 9 - pretest and final research instrument with Brazilians (Article 3)

<p>Prezado(a),</p> <p>A VIDI SHOPPER, em parceria com a FGV, está realizando uma pesquisa sobre a interação dos consumidores com marcas no Facebook e contamos contigo no preenchimento deste questionário até o dia 28/05/2017.</p> <p>Não existe resposta certa ou errada, e suas respostas serão tratadas de forma anônima e confidencial. Agradecemos antecipadamente a sua participação.</p> <p>VIDI e FGV</p>
<p>Como incentivo nós sortearemos 5 prêmios de R\$ 50,00.</p> <p>Participarão do sorteio aqueles que <u>responderem todo o questionário e obtiverem 100% de acerto nas questões de verificação</u> (questões para checar a atenção do respondente).</p> <p>Caso tenha interesse em participar do sorteio, informe o seu e-mail:</p>
<input type="text"/>
<p>1. Com que frequência você usa o Facebook?</p> <p>(Caso você não possua perfil no Facebook, você pode encerrar sua participação nesta pergunta).</p>
<p> <input type="radio"/> Diariamente <input type="radio"/> 4-6 vezes por semana <input type="radio"/> 2-3 vezes por semana <input type="radio"/> 1 vez por semana <input type="radio"/> Menos de 1 vez por semana </p>
<p>2. Escreva o nome de 1 (UMA) MARCA que você costuma interagir no Facebook.</p> <p>Escolha aquela que você mais interage (ex.: Heineken, Nike, Cacau Show, Apple, Netshoes, Corinthians, etc).</p> <p>(Entenda "INTERAGIR" como visualizar, curtir, comentar ou compartilhar publicações relacionadas à marca, <u>elaboradas ou não por ela</u>).</p> <p>(Marca é um nome, termo, sinal, símbolo, desenho ou combinação desses elementos que deve identificar os bens ou serviços de um fornecedor, diferenciando-o dos concorrentes (Keller, 2005)).</p>
<input type="text"/>
<p>3. Você interagiu via Facebook com a Marca indicada na questão anterior nos últimos 30 dias?</p> <p>(Entenda "INTERAGIR" como visualizar, curtir, comentar ou compartilhar publicações relacionadas à marca, <u>elaborados por ela ou não</u>).</p>
<p> <input type="radio"/> Sim <input type="radio"/> Não </p>
<p>4. Você segue a página oficial da Marca no Facebook (indicada na questão 2)?</p>
<p> <input type="radio"/> Sim <input type="radio"/> Não </p>
<p>5. Você comprou algum produto ou serviço desta Marca nos últimos 4 meses?</p>
<p> <input type="radio"/> Sim <input type="radio"/> Não </p>

Appendix 9 (continuation)

ORIENTAÇÕES GERAIS	
De agora em diante, faremos referência à marca indicada na questão 2 como sendo 'Marca X' . Por favor, avalie o seu grau de concordância com as afirmações a seguir, marcando as opções que melhor representem a sua opinião.	
Publicações relacionadas à Marca X no Facebook prendem minha atenção.	Discordo totalmente <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Concordo totalmente
Gosto de aprender mais sobre a Marca X no Facebook.	Discordo totalmente <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Concordo totalmente
Presto bastante atenção às publicações relacionadas à Marca X no Facebook.	Discordo totalmente <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Concordo totalmente
Eu passo muito do meu tempo livre interagindo (lendo, curtindo, comentando ou compartilhando) com publicações relacionadas à Marca X no Facebook.	Discordo totalmente <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Concordo totalmente
Sou fortemente envolvido(a) com publicações relacionadas à Marca X no Facebook.	Discordo totalmente <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Concordo totalmente
Fico entusiasmado(a) com publicações relacionadas à Marca X no Facebook.	Discordo totalmente <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Concordo totalmente
Meus dias não seriam os mesmos sem as publicações relacionadas à Marca X no Facebook.	Discordo totalmente <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Concordo totalmente
Eu gosto mais das publicações relacionadas à Marca X no Facebook quando meus amigos também estão interagindo.	Discordo totalmente <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Concordo totalmente
Eu gosto mais das publicações relacionadas à Marca X no Facebook quando há outras pessoas interagindo.	Discordo totalmente <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Concordo totalmente
As publicações relacionadas à Marca X no Facebook são mais divertidas quando outras pessoas também participam da interação.	Discordo totalmente <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Concordo totalmente
A Marca X é uma empresa em que eu confio.	Discordo totalmente <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Concordo totalmente
A Marca X tem uma boa reputação geral.	Discordo totalmente <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Concordo totalmente
Em geral, eu acredito que a Marca X sempre cumpre as promessas que faz aos seus clientes.	Discordo totalmente <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Concordo totalmente
Considero que a reputação da Marca X é boa.	Discordo totalmente <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Concordo totalmente
Interagir com publicações relacionadas à Marca X no Facebook é uma experiência agradável.	Discordo totalmente <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Concordo totalmente
O valor total da minha interação com publicações relacionadas à Marca X no Facebook é excelente.	Discordo totalmente <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Concordo totalmente
Interagir com publicações relacionadas à Marca X no Facebook representa um bom uso do meu tempo.	Discordo totalmente <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Concordo totalmente
Responda discordo totalmente (verificação da atenção).	Discordo totalmente <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Concordo totalmente
Responda concordo totalmente (verificação da atenção).	Discordo totalmente <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Concordo totalmente
Responda nem concordo nem discordo (verificação da atenção).	Discordo totalmente <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Concordo totalmente
Fico feliz quando a Marca X faz mal às pessoas.	Discordo totalmente <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Concordo totalmente
Gosto quando a Marca X me engana.	Discordo totalmente <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Concordo totalmente

Appendix 9 (continuation)

Por favor, agora indique seu grau de concordância com as afirmações sobre seu sentimento ou interação com Marcas em geral.	
Eu tenho uma conexão especial com as marcas que eu gosto.	Discordo totalmente <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Concordo totalmente
Minhas marcas favoritas são como uma parte de mim mesmo.	Discordo totalmente <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Concordo totalmente
Eu geralmente sinto uma conexão pessoal entre minhas marcas e eu.	Discordo totalmente <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Concordo totalmente
Parte de mim é definida pelas marcas importantes na minha vida.	Discordo totalmente <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Concordo totalmente
Eu sinto como se tivesse uma conexão pessoal com as marcas que mais gosto.	Discordo totalmente <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Concordo totalmente
Eu me identifico com marcas importantes na minha vida.	Discordo totalmente <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Concordo totalmente
Existe relação entre as marcas que gosto e a forma como eu me vejo.	Discordo totalmente <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Concordo totalmente
Minhas marcas favoritas são uma importante indicação de quem eu sou.	Discordo totalmente <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Concordo totalmente
Respondo concordo totalmente.	Discordo totalmente <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Concordo totalmente
Gosto quando minhas marcas favoritas me enganam.	Discordo totalmente <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Concordo totalmente

Aproximadamente, quando foi a última vez que você interagiu com a Marca X no Facebook?

Considerando sua compra mais recente, há aproximadamente quanto tempo você comprou algum produto ou serviço da (ou na) Marca X:

Com que frequência você usa o Facebook para ler mensagens ou comentários?

- ☐ Muitas vezes por dia
- ☐ Uma vez por dia
- ☐ 3-4 vezes por semana
- ☐ 1-2 vezes por semana
- ☐ Menos de 1 vez por semana

Com que frequência você posta mensagens ou comentários no Facebook?

- ☐ Muitas vezes por dia
- ☐ Uma vez por dia
- ☐ 3-4 vezes por semana
- ☐ 1-2 vezes por semana
- ☐ Menos de 1 vez por semana

Appendix 9 (continuation)

Gênero
<input type="radio"/> Masculino <input type="radio"/> Feminino
Idade (apenas números)
<input type="text"/>
Estado civil
<input type="radio"/> Solteiro(a) <input type="radio"/> Casado(a) <input type="radio"/> Separado(a) / divorciado(a) / desquitado(a) <input type="radio"/> Viúvo(a)
Escolaridade
<input type="radio"/> Ensino fundamental incompleto <input type="radio"/> Ensino fundamental completo <input type="radio"/> Ensino médio incompleto <input type="radio"/> Ensino médio completo <input type="radio"/> Superior incompleto <input type="radio"/> Superior completo <input type="radio"/> Pós-graduado(a)
Renda familiar mensal
<input type="radio"/> Abaixo de R\$ 1.760,00 <input type="radio"/> Entre R\$ 1.760,0 e R\$ 3.520,00 <input type="radio"/> Entre R\$ 3.520,01 e R\$ 8.800,00 <input type="radio"/> Entre R\$ 8.800,01 e 17.600,00 <input type="radio"/> Acima de R\$ 17.600,00
Número de pessoas na sua residência (apenas número)
<input type="text"/>