

**CAN I FOLLOW YOU? PROPOSAL OF A MEASUREMENT MODEL TO ASSESS THE
RELATIONSHIP BETWEEN SOCIAL MEDIA BRANDS AND THEIR USERS**

YURI DE SOUZA ODAGUIRI ENES
UNIVERSIDADE DE BRASÍLIA (UNB)

GISELA DEMO
UNIVERSIDADE DE BRASÍLIA (UNB)

FERNANDA SCUSSEL
UNIVERSIDADE FEDERAL DE SANTA CATARINA (UFSC)

TALITA LIMA DA SILVA
UNIVERSIDADE DE BRASÍLIA (UNB)

CAN I FOLLOW YOU? PROPOSAL OF A MEASUREMENT MODEL TO ASSESS THE RELATIONSHIP BETWEEN SOCIAL MEDIA BRANDS AND THEIR USERS

INTRODUCTION

The social media revolution affected the dynamics of the relationship between customers and companies, promoting significant changes in the way these social actors interact, affecting how such relationships are managed (Sheth, 2017). In this perspective, social media became the dominant trend in contemporary marketing (Vel, Brobbey, Salih, & Jaheer, 2015), innovating communication, interaction, and relationships, as well as the way companies do business and position their brands. Marketing strategies on social media allow a targeted segmentation of consumers, adapting to behavioral preferences, becoming a significant source of opportunities for organizations (Ather, Khan, Rehman, & Nazneen, 2018).

With the rapid spread of social media among companies, brands, and consumers, the traditional perspective on relationship marketing has also changed, in order to promote relational strategies adapted to the digital context (Enes et al., 2021). In this regard, Customer Relationship Management, a business philosophy focused on the development of long-term relationships between customers and organizations/brands (Frow & Payne, 2009), was also reformulated, giving rise to Social Customer Relationship Management. Social CRM is an extension that deepens knowledge about consumer behavior, encompassing their experiences and expectations, in order to enable greater customer retention and loyalty in competitive markets (Wang & Kim, 2017). Although larger technology companies have superior capacity to manage this type of practice, the use of social media as part of Social CRM strategies represents opportunities for small and medium-sized companies, given the relevance of data management regarding consumers for better decision-making and more effective brand positioning (Marolt, Zimmermann, Žnidaršič, & Pucihar, 2020).

Regardless of the dominant focus on social media as a powerful intermediate in the relationship between customers and companies (Enes et al., 2021; Voorveld, 2019), the relationship between social media brands and their users remains undertheorized. Social media are brands, each with its own purpose, user base, and competitive strategies, essential for its profitability and market position (Stanková, 2020). Despite the lack of a monetary transaction between social media and users, given their standard features, social media promotes relational strategies concerning consumers' attraction and maintenance based on interactivity, information search, and sharing, entertainment, sense of belonging, and social recognition, a place to express opinions, convenience, and communication (Whiting & Williams, 2013). However, the relational strategies used by social media brands to connect with their users are an important gap to be addressed, particularly because of the absence of works on social media differentiation strategies (Demo, Silva, Watanabe, & Scussel, 2018).

On that basis, we question: what are the main aspects that lead users to relate to social media brands? Most importantly, how do users evaluate their relationship with social media brands? To answer these questions, the main objective of this paper is to develop a measurement model to assess the relationship between social media brands and users, here called the Social Media Relationship Scale (SMR Scale). The SMR Scale is able to measure users' relationship perception, which means we are able to identify the most important aspects users perceive when relating to a social media brand. As a secondary objective, we analyze the association of each dimension of the SMR Scale with users' satisfaction.

THEORETICAL FRAMEWORK

The impact of organizational actions on consumers must be understood as an integral part of marketing, especially concerning their preferences, satisfaction, purchase intentions, and the maintenance of a relationship (Grönroos, 2017). From this perspective, relationship

marketing plays an essential role for organizations (Gummerus, Von Koskull, & Kowalkowski, 2017), since it prioritizes the long-term relationship perspective, enabling the modification of objectives in favor of differentiation strategies (Sheth, 2017), focusing on customer retention, preference, and loyalty (Grönroos, 1994; Sheth & Parvatiyar, 2002; Payne & Frow, 2005).

In turn, Customer Relationship Management (CRM) combines relationship marketing strategies with the potential of information and communication technologies, from an integrated and holistic perspective (Payne, 2012). In the academic understanding, relationship marketing is the broader concept encompassing the strategic management of relationships with customers and other organizational stakeholders, meanwhile CRM addresses the strategic management of relationships with customers using information technology (Frow & Payne, 2009). As these scholars explain, CRM is a part of the relationship marketing body of knowledge, with focus in strategic interactions with customers to generate value and relational benefits. CRM allows the increasing of loyalty, marketing effectiveness, and service provision, as well as it enables a superior understanding of consumer behavior (Cruz-Jesus, Pinheiro, & Oliveira, 2019).

The evolution of the society and the relationship between individuals, companies and technology gave rise to Social CRM, a concept dedicated to explore the role of the technological affordances of social media in the relationship between consumers and organizations/brands (Malthouse, Haenlein, Skiera, Wege, & Zhang, 2013). According to them, social media brings consumers and companies closer through relational strategies based on connection and communication. This new scenario not only promotes a relationship between them, but it fosters consumers' empowerment, enables comparison with other brands and demands from companies fast and assertive responses, increasing competition.

Literature recognizes the role of social media in providing resources for CRM strategies (Wang & Kim, 2017); social media as a partner in developing brand-customer relationships (Mills & Plangger, 2015); and social media as a tool to manage crises (Abedin, 2016). The idea is that social media broads the points of contact between customers and brands in the online environment, strengthening this relationship and adding value to companies and customers. Regardless the interest on social media in the context of relationship marketing (Carlson et al., 2019; Voorveld, 2019), the perspective of social media as brands remain underexplored. More specifically, the relationship between social media users and social media brands is a gap in the scientific literature (Demo et al., 2018), conducting us to shed light into the relational strategies connecting these social actors in the virtual environment. From this, we surpass the role of social media as an intermediary between companies/brands and their customers, focusing on social media as brands, with its own characteristics, objectives and users' profiles.

To address this matter, we searched for a scientific and reliable measure to evaluate the relationship between social media brands and their users. In the lack of a specific instrument to measure this relationship, we resorted to the construct relationship perception, proposed by Rozzett and Demo (2010), a measure that enables the evaluation of the main aspects consumers perceive as important when developing a relationship with a company/brand, which is the first step into relationship establishment and development (Grönroos, 2009). This scale was afterwards validated in the United States (Demo & Rozzett, 2013) and France (Demo et al., 2017), confirming its internal validity and the stability of the measure. Furthermore, it was validated in specific sectors (Demo, Rozzett, Fogaça, & Souza, 2018; Demo et al., 2021; Scussel & Demo, 2019), raising the possibility of validation to the context of social media brands, in order to measure the social media users' perception about their relationship with social media brands, thus becoming the main purpose of this paper.

However, as expected from a well-established relationship between companies and customer, literature mentions satisfaction (Trasorras, Weinstein, & Abratt, 2009), trust (Scussel et al., 2017), product and service quality (Gummerus, von Koskull, & Kowalkowski, 2017),

and interaction (Micheaux & Bosio, 2019). Considering the context of social media brands and users, we propose four hypotheses.

Satisfaction is known as the main goal of marketing strategies due to its influence of customer retention and market performance (Rust & Zahorik, 1993). In this perspective, satisfaction is also a driver of relationship marketing, being responsible for the maintenance of the relationship in the long-term (Payne & Frow, 2017). Literature also recognizes social media as a partner for companies to achieve customer satisfaction and, from this, build a relationship with clients (Nunan, Sibai, Schivinski, & Christodoulides, 2018). Considering that the notion of satisfaction that leads to loyalty has the main purpose of creating relational benefits for both sides (Grönroos, 2017), and the perspective of social media as brands, we present our first hypothesis:

Hypothesis 1 (H1): There is a positive association between users' relationship perception and their satisfaction with social media.

Trust is a building block of relationship marketing strategies (Scussel et al., 2017). Considering the role of trust in the virtual environment (Tang & Liu, 2015), particularly the role of social media in being reliable and trustworthy (Sterrett et al., 2019), we build the second hypothesis of this study:

Hypothesis 2 (H2): There is a positive association between users' trust on the social media brand and their satisfaction.

Due to the lack of a commercial transaction between social media brands and their users, we must resort to alternative measures in order to assess what users evaluate as quality in social media. Regarding the aspects of a social media that have value for users, the content stands out (Heinonen, 2011; Shao, 2009), conducting us to the third hypothesis:

Hypothesis 3 (H3): There is a positive association between users' evaluation on social media content and their satisfaction.

Lastly, interaction is the basis of relationship marketing strategy (Grönroos, 2004, 2009, 2017), being also the main motivation for people to use social media (Hall, 2018). On that basis, we elaborate the following hypothesis:

Hypothesis 4 (H4): There is a positive association between users' interaction with the social media brand and their satisfaction.

METHOD

This article reports a survey with social media users with the purpose of getting validity evidence of the Social Media Relationship Scale – SMR Scale. In the development of the SMR Scale, we followed the guidelines from Churchill (1979) and Rossiter (2002) on the development and validation of scientific measurement instruments in marketing. Since both procedures present strengths and limitations, we combined both methods, as literature indicates such combination (Oliveira & Veloso, 2015). To build the SMR Scale, we planned four stages: (i) generation of a pilot version of the scale; (ii) scale purification; (iii) new scale purification, with a new sample; and (iv) proposition of final items.

The **generation of the pilot version** of the scale encompasses a qualitative study, based on 24 interviews with social media users. The number of participants met the data saturation criterion (Bardin, 2016), indicating the sufficiency of the sample. The interviews were transcribed and submitted to content analysis, as proposed by Bardin (2016). To generate the items for the SMR Scale, we combined the items from a previously validated scale (Demo & Rozzett, 2013) and the results from content analysis. This first version of the scale was

submitted to semantic analyses and judges' analyses, following the directions of Churchill (1979) and Rossiter (2002).

In the judges' analyses, we promoted an online focus group with six experts in social media, among academics and managers. Literature suggests a minimum of six judges and three participants per focus group (Ressel et al., 2008). The objective of the judges' analyses is to ascertain the relevance of the scale items regarding the analyzed theme, try to fit each item in the dimensions obtained in the content analysis, and to receive suggestions for new items. To remove or add items, Pasquali (2010) requires the agreement between at least 80% of the judges. Next, the purpose of semantic analysis is to check the clarity of the items within the target audience, as well as the existence of redundant items. Literature demands a sample between 10 and 20 participants (Pasquali, 2010). Our sample for the semantic analysis had 20 users of social media. The last step in the generation of the pilot version of the SMR Scale was a pre-test. Ten social media users received the pilot version (Google Forms) to verify the need for final adjustments in the consent form and writing of the scale items.

The following stage is **scale purification**. The pilot version of the SMR Scale generated in the previous phase to survey social media users with a minimum age of 18 who should choose a social media of their preference as a filter question to answer the other items on the scale. We used an online platform (Google Forms) to share the survey. We reached 664 responses, meeting the criteria of at least 300 subjects to perform Exploratory Factor Analysis – considering 5 to 10 participants to each item of the scale (Tabachnick & Fidell, 2019). The sample also enabled us to perform Confirmatory Factor Analysis, since Kline (2015) recommends between 10 and 20 subjects per item.

Before data analysis, we carried out a data treatment step. Following the guidelines from Tabachnick and Fidell (2019), we excluded 43 missing values and 19 outliers. The final sample had 602 valid responses. The sample is formed mostly by female users (39%) up to 30 years-old (79%), with high school (42%) and college (39%). Most of the users relate to the selected social media brand for 5-10 years (52%), using the social media daily (95%) for a period between one and two hours (38%). The most cited social media were Instagram (41%), WhatsApp (22%), Twitter (15%), YouTube (6%), Facebook (5%) and Discord (4%).

Then, multicollinearity and singularity analyzes were performed, using the criterion of tolerance values greater than 0.1 and variance inflation factor (VIF) values less than 5.0 (Hair et al., 2016; Myers, 1990). We found no multicollinearity problems. After these steps, we analyzed the assumptions for the use of multivariate analysis using normal probability graphs and residual graphs (Field, 2018). We verified the linearity, normality, and, homoscedasticity of the data, confirming all the assumptions. Finally, using the Amos software, linked to SPSS, uni and multivariate normalities were also attested.

As for data analysis, to perform the Exploratory Factor Analysis, we selected a random sample of 300 from the final sample of 602 participants, adapting to the minimum recommended amount (Hair et al., 2009; Tabachnick & Fidell, 2019). We used the remaining sample of 302 subjects for Confirmatory Factor Analysis, conforming a **new purification of the scale**, constituting an independent sample of the exploratory analysis and meeting the quantity recommended in the literature of 10 subjects per questionnaire item (Kline, 2015). After the statistical analyses, we present the **final items of the scale**. Finally, for the hypotheses test, we performed correlation and linear regression analyzes.

FINDINGS

The interviews generated the preliminary version of the scale, with 36 items divided into five initial factors: Trust, Quality, Content, Communication, and Loyalty. In the judge's analysis, seven items were removed, 11 had their wording changed and two items were added. During the semantic analysis, seven items changed their wording, two redundant items were

excluded and one item was added. In the pre-test, there was no exclusion, alteration or inclusion of items. At the end of the item generation stage, the SMR Scale had 30 items. The following step is scale purification. For this, we first present the findings regarding the evidence of exploratory validity, followed by the step of a new scale purification, in which we address the evidence of confirmatory validity.

SMR Scale Evidence of Exploratory Validity

Initially, we conducted the psychometric validation of the scale using exploratory factor analysis (Field, 2018; Hair et al., 2016). To verify the factorability of the sample, that is, the feasibility of using factor analysis, we analyzed the Kaiser-Meyer-Olkin (KMO) sample adequacy index. The SMR Scale reached a KMO value of 0.85, considered “meritable” to validate its commonality and factorability (Kerlinger & Lee, 2008).

Next, we defined the number of factors in the scale considering eigenvalues, percentage of explained variance, screen plot graph, and parallel analysis (Field, 2018). Regarding the eigenvalues method, we found seven factors above 1.0. As for the explained variance, we found nine factors above 3.0%. The scree plot indicated five factors. Parallel analysis determines the sets of extracted values, without the influence of sample size and factor loadings of items (Hayton, Allen, & Scarpello, 2004), being the most recommended (Laros & Puentes-Palacios, 2004). Thus, to perform this analysis, we used the RanEigen software, identifying four factors. However, one of them did not obtain statistical support due to reliability indices below 0.6 (Nunnally & Bernstein, 1994). In addition, this factor showed low factor loadings for its items, of which half had loads under 0.5. Thus, we decided to keep three factors for the SMR Scale, considering theoretical and statistical support.

We performed exploratory factor analysis using Promax oblique rotation, as recommended by Kerlinger and Lee (2008) since it presupposes correlations between variables. Factor loadings refer to the correlation of items with the dimensions or factors of the scale, enabling the verification of the internal validity or quality of the scale. We followed the Comrey and Lee's (2013) parameters: negligible (loads < 0.3), poor (loads ≥ 0.32 and ≤ 0.44), reasonable (loads ≥ 0.45 and ≤ 0.54), good (loads ≥ 0.55 and ≤ 0.62), very good (loads ≥ 0.63 and ≤ 0.70), and excellent (loads ≥ 0.71). We established a minimum load of 0.45 to keep the greater quality and internal validation for the SMR Scale. Thus, we kept only reasonable, good, very good, and excellent items. This resulted in a scale with 19 items, of which four were reasonable, nine good, three very good, and three excellent.

SMR Scale Confirmatory Analysis

In the confirmatory validity stage, we tested the structure obtained in the exploratory stage. We opted for structural equation modeling, the maximum likelihood estimation method, due to its resistance to normality violations and its applicability in samples of different sizes (Hair et al., 2016). For this, we used Amos, software added to SPSS.

Considering that the proposed research model had 120 observations and 33 parameters, we obtained 87 degrees of freedom, indicating a recursive and identified model (just identified). To verify the model fit, we used incremental and absolute indices, chi-square value (χ^2), and degrees of freedom. Following the recommendations of Hair et al. (2016), we the normed χ^2 value (NC or CMIN/DF values, where CMIN represents the χ^2 statistic and DF indicates the model's degrees of freedom); one incremental index, the Goodness of Fit Index (GFI); and an absolute index, the Root Mean Square Error of Approximation (RMSEA). The following criteria prevail for considering satisfactory adjustments: NC (CMIN/DF) ≥ 2.0 and ≤ 3.0 , and at most 5.0; GFI ≥ 0.9 ; RMSEA ≤ 0.06 , or up to 0.10 (Kline, 2015).

To verify the instrument's dimensions, we tested the unifactorial and the multifactorial models, following Byrne's (2016) suggestions for parsimony. Neither the factor loadings nor

the adjustment indices for the one-factor model were satisfactory, so we continued with the verification of the multifactor model. Table 1 shows the comparison between the indices of the unifactorial and multifactorial models, where the chi-square difference between the models was quite significant, demonstrating that the relationship of social media brands with their users must be evaluated through a multidimensional structure.

Table 1
SMR Scale Confirmatory Analysis Fit Indices

Parameters	Reference (Kline, 2015)	Unifactor Model	Multifactor Model
NC (χ^2/DF)	< 5.0	6.09	3.55
GFI	≥ 0.90	0.71	0.89
RMSEA	< 0.10	0.13	0.09
$\Delta \chi^2 (70)=634.35; p<0.001$			

Next, we carried out an analysis to improve the fit of the multifactor model (Kline, 2015). The multifactorial model presented factor loadings below 0.50 for items 12, 19, 22, and 30, which were excluded. As for the factor loadings of the remaining 15 items, four are excellent, six very good, two good, and three reasonable, according to Comrey and Lee's (2013) criterion. The analysis of modification indexes (MI) proposed by Kline (2015) indicated five desirable associations, through double arrows in the model, between the errors of variables v1 and v2 (IM=4.941), v1 and v8 (IM=4.293), v2 and v13 (IM=9.374), v10 and v11 (IM=6.062), and v10 and v13 (IM=7.344). The correlations added between the errors have literature support, in addition to being between items of the same factor.

The correlation between the errors of variables v1 ("My experiences with this social media meet my expectations of use in general") and v2 ("I identify with this social media") indicates that identification with a social media corroborates the fulfillment of users' expectations. In this sense, the perceived quality of a given good or service, as well as associations with the brand and its credibility, can increase consumer satisfaction during their experience of use, in addition to being related to the intention to purchase and use a given service (Azzari & Pelissari, 2020).

The association between the errors of v1 ("My experiences with this social media meet my expectations of use in general") and v8 ("This social media gives me a sense of belonging") suggests the connection between meeting expectations and sense of belonging to the user. Belonging is an essential point for obtaining brand commitment, reinforced by consumer satisfaction with the services provided (Fullerton, 2003). Furthermore, a greater sense of belonging contributes to greater satisfaction and loyalty to the brand (Braxton & Lau-Gesk, 2020). Regarding the relationship between the errors of v2 ("I identify with this social media") and v13 ("I trust this social media"), belonging and identification with a brand are linked to trust, an element essential for generating commitment and building satisfying relationships (Demo et al., 2015).

As for the association between v10 ("I intend to continue being a user of this social media") and v11 ("I intend to use this social media more often"), maintaining a relationship with the social media is related to the greater frequency of its use. Consumers with constant frequency are ideal targets for marketing strategies given their engagement, considering that consumer engagement leads to higher retention rates and greater willingness to maintain a relationship with the brand (Fullerton, 2003).

Lastly, the relationship between v10 ("I intend to continue being a user of this social media") and v13 ("I trust this social media") suggests the maintenance of relationships due to brand trust. This behavior can be explained by the attitudinal perspective of loyalty, in which aspects of consumer attitudes regarding a brand lead to repurchases and greater use of goods and services, translating into behavioral aspects (Oliver, 1999). Thus, trust promotes consumer

satisfaction, generating credibility and loyalty for the brand (Villagra, Monfort, & Herrera, 2021).

Figure 1 shows the final model for the SMR Scale, formed by three dimensions: Trust (T), Content (C), and Interaction (I). In the following, Table 2 presents the results for the SMR Scale Confirmatory Factor Analysis.

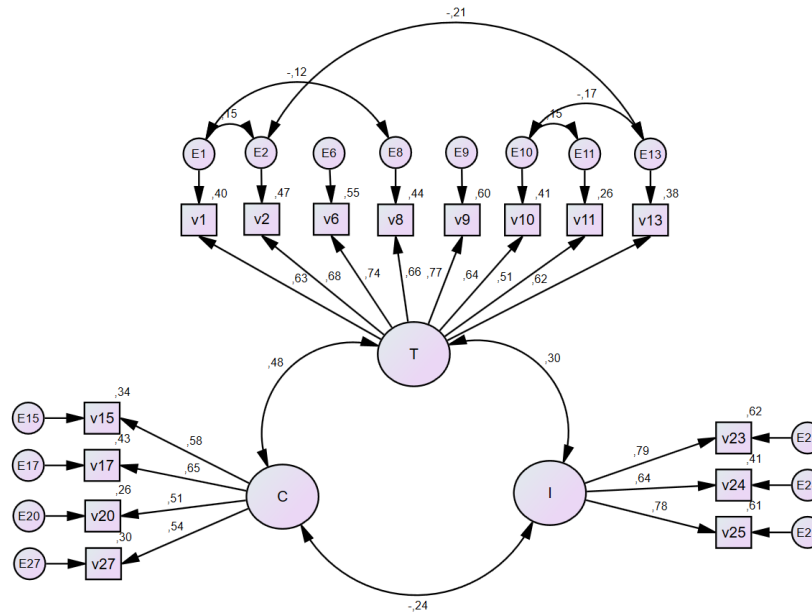


Figure 1. SMR Scale Multifactorial Model

Note. $\chi^2(82)=291.25$; $p<0.001$; $NC(CMIN/DF)=3.55$; $GFI=0.89$; $RMSEA=0.09$.

Table 2

SMR Scale Confirmatory Factor Analysis Regression Weights

Factor	Scale Items	Standardized Estimates	Unstandardized Estimates	S.E.	C.R.	ρ
Trust (T)	v1	0.63	1.00			
	v2	0.68	1.29	0.122	10.556	***
	v6	0.74	1.78	0.173	10.256	***
	v8	0.66	1.66	0.185	8.977	***
	v9	0.77	1.78	0.169	10.559	***
	v10	0.64	1.00	0.110	9.057	***
	v11	0.51	1.49	0.195	7.657	***
	v13	0.62	1.64	0.187	8.788	***
Content (C)	v15	0.58	1.00			
	v17	0.65	0.98	0.138	7.312	***
	v20	0.51	0.55	0.088	6.261	***
	v27	0.54	0.77	0.118	6.512	***
Interaction (I)	v23	0.79	1.00			
	v24	0.64	1.12	0.115	9.797	***
	v25	0.78	1.21	0.112	10.776	***

Note. S.E. = standardized error; C.R. = critical ratio test or t test; *** = $\rho < 0.001$.

SMR Scale Evidence of Reliability and Validity

Regarding the reliability of the factors, we analyzed their Jöreskog' rho indices (ρ). For confirmatory validations, the Jöreskog' rho is more recommended than Cronbach's alpha, an index that uses the correlations between the items and most used in exploratory analyzes (Chin, 1998). In this sense, ρ values above 0.6 are acceptable, with values above 0.8 being very

satisfactory (Ursachi, Zait, & Ioana, 2015). All factors of the SMR Scale reached acceptable values of reliability: Trust ($\rho=0.86$), Interaction ($\rho=0.78$), and Content ($\rho=0.66$).

As for the internal validity, the three-factor scale reached a total explained variance of 40%, a satisfactory result considering the seminal context of the study (Hair et al., 2016). The psychometric indices found for the SMR Scale are considered quite satisfactory by the literature (Hair et al., 2016; Field, 2018; Tabachnick & Fidell, 2019). Table 3 summarizes the results.

Table 3
SMR Scale Psychometric Indices

Item	Factor Loads			Quality
	Trust	Content	Interaction	
9. I say good things about this social media.	0.77			Excellent
6. This social media has a positive image for me.	0.74			Excellent
2. I identify with this social media.	0.68			Very good
8. This social media gives me a sense of belonging.	0.66			Very good
10. I intend to continue being a user of this social media.	0.64			Very good
1. My experiences with this social media meet my expectations of use in general.	0.63			Very good
13. I trust this social media.	0.62			Good
11. I intend to use this social media more often.	0.51			Reasonable
17. This social media has content variety.		0.65		Very good
15. This social media allows reporting inappropriate and offensive content.		0.58		Good
27. In this social media, I can configure the visibility of my actions to guarantee my privacy.		0.54		Reasonable
20. I like the layout of this social media.		0.51		Reasonable
23. This social media makes me feel closer to people who matter to me.			0.79	Excellent
25. I use this social media to communicate with friends and family.			0.78	Excellent
24. I use this social media to communicate with people from work.			0.64	Very good
Reliability (ρ)	0.86	0.66	0.78	
Extracted Variance	0.43	0.33	0.55	
Total Explained Variance				40%

Next, for construct validity, we evaluated convergent, divergent, and nomological validity. To examine convergent validity, we analyzed the degree of agreement for the scales' measurements. The literature indicates that such inter-correlations between items require values above 0.3, thus being, at least, moderate (Cohen, 1992; Hair et al., 2016; Kline, 2015). All factor loadings of the SMR Scale are above 0.5. Additionally, the convergent validity can be verified through the reliability of its factors, its Jöreskog' rho indices, which were above 0.6. As the desirable values must be above 0.7 or 0.8 (Chin, 1998), future re-specifications in the Content factor may be necessary to improve its internal consistency, although it has reached the minimum standard of acceptability (Ursachi et al., 2015). Another convergent validity test is the analysis of variance extracted from the factors, which should reach at least 0.4, although the ideal is above 0.5 (Hair et al., 2016). The Trust factor reached the extracted variance of 0.43, while Interaction reached 0.55. The Content factor obtained 0.33, reinforcing the need for future improvements for this factor and possibly for the Trust factor as well, despite the existence of convergent validity for the model as a whole.

The discriminant validity between the factors of a scale points out the degree of distinction between conceptually divergent factors, that is, how much each factor is unique and different from the other factors of a multi-factor model (Hair et al., 2016). We attest discriminant validity based on extracted variance values greater than the square of the correlation between the factors. Thus, following the Fornell-Larcker criterion (Hair et al.,

2016), each measure can be better explained by the factor itself, when compared to the others. Table 4 shows SMR Scale's discriminant validity.

Table 4
SMR Scale's discriminant validity

Factor	Trust	Content	Interaction
Trust	0.43^a	-	-
Content	0.23	0.33^a	-
Interaction	0.09	0.06	0.55^a

Note. ^a Extracted Variance.

Nomological validity, on the other hand, verifies the behavior of the scale when related to other constructs, to observe its compliance with theoretical and empirical literature (Hair et al., 2016). To reach nomological validity, we correlated the answers to the question “On a scale from 0 to 10, what is the probability of you recommending this social media to friends and family?”, an indicator of customer satisfaction (Reichheld, 2003, 2011), with the averages of the responses of the 15 final items of the scale, in their respective factors. We used the Pearson coefficient, finding a positive and strong correlation of 0.681 (Cohen, 1992), with a significance of 0.01. The expressive correlation between relationship perception and user satisfaction confirms the nomological validity of the construct, corroborating previous literature (Ong, Lee, & Ramayah, 2018; Rozzett & Demo, 2010). Table 5 summarizes these results.

Table 5
Correlation and Regression Tests

	Net Promoter Score (Satisfaction Index)	Trust	Content	Interaction	User Relationship Perception	Regression Coefficient (R ²)
Pearson Correlation	1	0.684**	0.266**	0.278**	0.681**	0.491

Note. ** $\rho < 0.01$.

There is a positive and significant relationship between all the scale factors and user satisfaction. We highlight the influence of loyalty on satisfaction as the highest correlation and thus revealing the importance of the user's trust with the social media for their satisfaction. In turn, the R² regression coefficient indicates that 49.1% of the variance of the satisfaction construct can be explained by the dimensions of the SMR Scale, representing a large effect (Cohen, 1992). According to Cohen (1992), when analyzing the coefficient of determination (R²) in the context of behavioral sciences, 2% is considered as a small effect, 13% is a medium effect, and above 26% is a large explanatory effect of the independent variables on the dependent variable.

These findings enable us to confirm the hypotheses of the study, demonstrating the positive associations between the users' relationship perception in each of its dimensions (trust, content, and interactivity) and their satisfaction. Table 6 shows the hypotheses test results.

Table 6
Hypothesis Test

Associations	Pearson Correlation (r)	Results
H1: R↔S	0.681**	Confirmed
H2: T↔S	0.684**	Confirmed
H3: C↔S	0.266**	Confirmed
H4: I↔S	0.278**	Confirmed

Note. ** $\rho < 0.01$; R = Relationship; T = Trust; C = Content; I = Interaction; S = Satisfaction.

Finally, we identified evidence of content validity for the SMR Scale in the scientific literature. As important as the evidence of statistical validity so far obtained, we must assess theoretical support for each item in the scale (Hair et al., 2016). Table 7 presents SMR Scale content validity.

Table 7
Content Validity

Items	Theoretical Support
1. My experiences with this social media meet my expectations of use in general.	The use of social media platforms promotes feelings of gratification due to the met expectations around information seeking, socializing, entertainment, status seeking and prior social media sharing experience on news sharing intention (Lee & Ma, 2012).
2. I identify with this social media.	The identification with social media is based on the level of activity of the users, the shared content and the position in the network (Benamar, Balagué, & Ghassany). When users to that, they are identifying with the brand behind social media, enhancing their relationship (Dimitriadis & Papista, 2010).
6. This social media has a positive image for me.	Innovative, reliable, and credible social media brands have a positive image, engendering their users' loyalty (Demo et al., 2018).
8. This social media gives me a sense of belonging.	Social media promotes a sense of belonging in their users due to the possibilities of connecting with friends, family and communities of interest (Liu, Shao, & Fan, 2018). These authors agree that, the more they feel the sense of belonging, the longer they stay connected.
9. I say good things about this social media.	Word-of-mouth is phenomenon potentialized by social media (Barreto, 2014), a tool to foster relationships with customers (Ngoma & Ntale, 2019).
10. I intend to continue being a user of this social media.	The interaction with social media tends to generate attitudinal loyalty and behavioral loyalty (Hawkings & Vel, 2013).
11. I intend to use this social media more often.	The adoption of technological devices tends to be followed by the continuity of use (Harris et al., 2016)
13. I trust this social media.	Trust is a building block of relationship marketing (Scussel et al., 2017).
15. This social media allows reporting inappropriate and offensive content.	The presence of reporting mechanisms and policies against inappropriate and offensive content indicate greater transparency on the part of social media, an important aspect to build trust and encourage greater frequency of use and interactivity among users (Botelho-Francisco, Oliveira, & Pontes, 2019).
17. This social media has content variety.	Content is the main driver of social media usage (Heinonen, 2011).
20. I like the layout of this social media.	The format used by social media impacts the adoption of the platform and promotes engagement behaviors (Shahbaznezhad, et al., 2021).
27. In this social media, I can configure the visibility of my actions to guarantee my privacy.	Privacy policies and use of online platforms represent important aspects in building trust, influencing the frequency of use and interactivity between users (Leninkumar, 2017).
23. This social media makes me feel closer to people who matter to me.	The approximation between users represents a motivating characteristic of the use of social media and an essential property of their choice (Heinonen, 2011; Demo et al., 2018).
24. I use this social media to communicate with people from work.	Social media like LinkedIn can be used to foster good impressions in the work environment and as a tool for career advancement (McCabe, 2017).
25. I use this social media to communicate with friends and family.	Social media changed the ways of communication, bringing innovation to the way people interact (Heinonen, 2011; Demo et al., 2018).

DISCUSSION

The main objective of this study was to obtain evidence of reliability and internal, construct, and content validity of a measurement model called SMR Scale to assess how users perceive their relationship with social media brands. We presented a multidimensional instrument with 15 items distributed in three factors, namely Trust, Content and Interaction. Furthermore, we found the influence of these dimensions on user satisfaction.

The factor Trust represents a consumers' perception that a company/brand is reliable and trustworthy (Chaudhuri & Holbrook, 2001; Scussel et al., 2017), being able to keep their promises to the customers (Grönroos, 2009). Trust is also a driver of customer loyalty: the more credibility consumers see in a company/brand, the more they tend to relate to such company/brand (Fetscherin & Heinrich, 2015). We must understand, however, that loyalty is not limited to repurchase, as consumers reveal their levels of trust and loyalty when they maintain the preference for a brand, patronize it and make recommendations (Oliver, 1999).

This is particularly important in the context of social media brands, as their relationship with the users surpasses the idea of a commercial transaction, traditionally based on the product and service provision (Demo et al., 2018). In this sense, additionally to the ability of the brand in keeping what it promises (Grönroos, 2009), the social media context embraces aspects concerning quality of the shared information (Tang & Liu, 2015), the social media brand ability in tracking the credibility of information outlet (Sterrett et al., 2019) and information privacy (Leninkumar, 2017). Thus, building trust in the context of social media is an important element in the relationship between social media brands and their users.

Considering the unique nature of social media, the original concepts of quality and added value must be adapted (Demo et al., 2018). In this sense, the factor Content represents how consumers evaluate the quality of what they consume in social media. The activities consuming content, producing content, joining discussions about topics of interest and sharing knowledge enable consumers to evaluate a social media brand (Heinonen, 2011). Consumers use this content for information, entertainment, mood management needs, socialization, self-expression and self-actualization, feeling better when these needs are fulfilled (Shao, 2009). Thus, it is reasonable to say that when users evaluate the content of a social media as of quality, the more they will relate with such social media brand.

The last factor, Interaction, is associated with the need of synergy between consumers and company/brand in order to achieve the relational benefits brought by relationship marketing (Grönroos, 2004, 2009, 2017). In the absence of commercial touchpoints in the context of social media, interaction within the social media, meaning users' interaction with family, friends and communities of interests, conform users' main motivation to use social media (Hall, 2018). On that basis, we understand that when consumers find in social media an environment in which he/she connects with other people, finding in the social media a sense of belonging, the more they will relate to the social media brand.

Implications, limitations and research agenda

The main academic contribution of this study lies in the development and validation of a scale to assess social media users' perception of their relationship with social media brands. From this, we fulfill a literature gap regarding not only consumer behavior in the context of social media, but we shed light on social media as brands and the relational strategies used by them to foster commercial relationships with users.

Based on the SMR Scale, the perception users have about their relationship with social media brands constitutes a variable that can be included in structural prediction models, such as antecedent, consequent, mediator, or moderator, advancing consumer behavior and relationship marketing bodies of knowledge. In addition, thanks to the evidence of discriminatory validity of the scale dimensions, the Trust, Content, and Interaction variables can be independently inserted in relational marketing studies, expanding the instrument's scope of use. Furthermore, the results of the study enable a deeper understanding of the theoretical field of social media in the context of relationship marketing, establishing the main factors involved in building and maintaining a relationship in the social media context, from the user's perspective. Thus, the roles of Trust, Content, and Interaction stand out as essential aspects for choosing social media brands.

It is also noteworthy that about 50% of user satisfaction comes from the dimensions of the SMR Scale. In other words, approximately half of the satisfaction is influenced by trust, content, and the interaction stimulated in social media. Thus, future tests of structural models involving satisfaction with social media brands need to include indicators from these three dimensions. Although these dimensions have shown positive and significant correlations with satisfaction, we observed that the strongest association was with trust, revealing the strategic role of commitment and trust to obtain increasing satisfaction from social media users.

As managerial implications, this study can be useful to support decision-making by sector managers that involve the relationship between users and social media brands. Moreover, the SMR Scale proved to be an operationally valid and reliable measure that allows the realization of diagnoses related to the users' perception regarding key aspects to gain preference for a social network. From this, we promote the understanding of the factors that lead to greater satisfaction and loyalty, allowing for more targeted and customized decisions and strategies, acting as a source of competitive advantage for organizations. Additionally, the use of SMR Scale as a diagnostic tool will enable the identification of positive points and, in particular, critical issues in the relationship with social media users where improvements are needed so that the experience on the social media brand is unique.

As limitations, we understand that our results are more indicative than conclusive since it was a first effort to validate a measure to evaluate brand-user relationships in the context of social media. Following this idea, we foresee the possibility of new validations in different samples, countries, and cultures as important for refining the scale and updating it on an ongoing basis, gaining evidence of external validity. The cross-sectional nature of the study is also a limitation, as it makes any causal inference impossible. In addition, the sampling performed for convenience prevents generalizations of the engendered results. Lastly, our study used only one data source and therefore is subject to common-method variance problems. If the one-factor structure of SMR Scale presented a satisfactory fit, there is common-method variance. As this did not happen in the comparison between uni and multifactorial structures, we can conclude that the common method variance alone does not explain the results.

Regarding the research agenda for further studies, we suggest future investigations on the association between users' relationship perception with other variables that indicate attitudinal and behavioral loyalty, such as frequency and time of use and acquisition of other services offered by the brand. We also see an agenda concerning the relationship users foster with digital influencers on social media, their perception of advertising on social media, and the relationship commercial profiles develop with the social media brands. Lastly, we recommend studies that explore the influence of the cultural context on the relationship with social media brands, to identify variations in behavior and strategic distinctions related to nationality and regionality that can be used for more personalized and effective communication.

CONCLUSION

The main objective of this study was achieved and a scale to assess the relationship with social media brands, from the users' perspective, was produced. The SMR Scale presented evidence of reliability, internal validity, construct validity, and content validity, constituting a reliable scientific measure with possibilities of application in relational studies in marketing and consumer behavior research. For social media managers, the scale can be used for diagnostic purposes to improve users' experience with the networks. In an increasingly virtually connected world, investing in the quality of relationships can bring substantial results for organizations and society as a whole.

REFERENCES

- Abedin, B. (2016). Diffusion of Adoption of Facebook for Customer Relationship Management in Australia. *Journal of Organizational and End User Computing*, 28(1), 56–72.
- Ather, S., Khan, N., Rehman, F., & Nazneen, L. (2019). Relationship between Social Media Marketing and Consumer Buying Behavior. *Peshawar Journal of Psychology and Behavioral Sciences (PJPBS)*, 4(2), 193-202.
- Azzari, V., & Pelissari, A. (2020). A Consciência da Marca Influencia a Intenção de Compra? O Papel Mediador das Dimensões do Valor da Marca. *Brazilian Business Review*, 17(6), 669-685.
- Bardin, L. (2016). *Análise de conteúdo*. Lisboa: Edições 70 Ltda.
- Barreto, A. M. (2014). The word-of-mouth phenomenon in the social media era. *International Journal of Market Research*, 56(5), 631-654.
- Baumöl, U., Hollebeek, L., & Jung, R. (2016). Dynamics of customer interaction on social media platforms. *Electronic Markets*, 26(3), 199-202.
- Benamar, L., Balagué, C., & Ghassany, M. (2017). The identification and influence of social roles in a social media product community. *Journal of computer-mediated communication*, 22(6), 337-362.
- Braxton, D., & Lau-Gesk, L. (2020). The impact of collective brand personification on happiness and brand loyalty. *European Journal of Marketing*, 54(10), 2365-2386.
- Byrne, B.M. (2016). *Structural Equation Modelling with AMOS: Basic Concepts, Applications, and Programming*; Routledge: New York, NY, USA.
- Carlson, J., Gudergan, S. P., Gelhard, C., & Rahman, M. M. (2019). Customer engagement with brands in social media platforms. *European Journal of Marketing*, 53(9), 1733-1758.
- Chaudhuri, A., & Holbrook, M. B. (2001). The chain of effects from brand trust and brand affect to brand performance: the role of brand loyalty. *Journal of marketing*, 65(2), 81-93.
- Chin, W.W. (1998). The partial least squares approach to structural equation modeling. *Modern Methods for Business Research*, 295, 295–336.
- Churchill Jr, G. A. (1979). A paradigm for developing better measures of marketing constructs. *Journal of Marketing Research*, 16(1), 64-73.
- Cohen, J. (1992). A power primer. *Psychological Bulletin, New York*, 112(1), 155-159.
- Comrey, A. L., & Lee, H. B. (2013). *A first course in factor analysis*. Nova York: Psychology Press.
- Cruz-Jesus, F., Pinheiro, A., & Oliveira, T. (2019). Understanding CRM adoption stages: empirical analysis building on the TOE framework. *Computers in Industry*, 109, 1-13.
- Demo, G., & Rozzett, K. (2013). Customer Relationship Management scale for the Business-to Consumer market: exploratory and confirmatory validation and models comparison. *International Business Research*, 6(11), 29–42.
- Demo, G., Fogaça, N., Ponte, V., Fernandes, T., & Cardoso, H. (2015). Marketing de Relacionamento (CRM): estado da arte, revisão bibliométrica da produção nacional de primeira linha, institucionalização da pesquisa no Brasil e agenda de pesquisa. *Revista de Administração Mackenzie*, 16(5), 127–160.
- Demo, G., Rozzet, K., Fogaça, N., & Souza, T. (2018). Development and validation of a Customer Relationship Scale for Airline Companies. *Brazilian Business Review*, 15(2), 105– 119.
- Demo, G., Watanabe, E. A. M., Chauvet, D. C. V., & Rozzett, K. (2017). Customer Relationship Management Scale for the B2C Market: a cross-cultural comparison. *RAM. Revista de Administração Mackenzie*, 18(3), 42-69.

- Dimitriadis, S., & Papista, E. (2010). Integrating relationship quality and consumer-brand identification in building brand relationships: proposition of a conceptual model. *The Marketing Review*, 10(4), 385-401.
- Enes, Y., Lima, T., Demo, G., & Scussel, F. (2021). The Intellectual Structure of Relationship Marketing Scientific Field: Proposing new avenues of research from a systematic review. *Consumer Behavior Review*, 5(1), 110-127.
- Fetscherin, M., & Heinrich, D. (2015). Consumer brand relationships research: A bibliometric citation meta-analysis. *Journal of Business Research*, 68(2), 380-390.
- Field, A. (2018). *Discovering statistics using IBM SPSS statistics* (5th ed.). Thousand Oaks, CA: SAGE Publications, Inc.
- Fullerton, G. (2003). When Does Commitment Lead to Loyalty?. *Journal of Service Research*, 5(4), 333-344.
- Grönroos, C. (1994). From marketing mix to relationship marketing: Towards a paradigm shift in marketing. *Asia-Australia Marketing Journal*, 2(1), 9-29.
- Grönroos, C. (2004). The relationship marketing process: communication, interaction, dialogue, value. *Journal of business & industrial marketing*, 19(2), 99-113.
- Grönroos, C. (2009). Marketing as promise management: regaining customer management for marketing. *Journal of Business & Industrial Marketing*, 24(5/6), 351-359.
- Grönroos, C. (2017). Relationship marketing and service: An update. *Journal of Global Scholars of Marketing Science*, 27(3), 201-208.
- Gummerus, J., von Koskull, C., & Kowalkowski, C. (2017). Guest editorial: relationship marketing – past, present and future. *Journal of Services Marketing*, 31(1), 1-5.
- Hair Jr., J.F., Sarstedt, M., Matthews, L.M., & Ringle, C.M. (2016). Identifying and treating unobserved heterogeneity with FIMIX-PLS: part I – method. *European Business Review*, 28(1), 63-76.
- Hair, J. F., Hult, G. T. M., Ringle, C., & Sarstedt, M. (2014). *A primer on Partial Least Squares Structural Equation Modeling (PLSSEM)*. Los Angeles: SAGE Publications.
- Hall, J. A. (2018). When is social media use social interaction? Defining mediated social interaction. *New Media & Society*, 20(1), 162-179.
- Harris, M. A., Brookshire, R., & Chin, A. G. (2016). Identifying factors influencing consumers' intent to install mobile applications. *International Journal of Information Management*, 36(3), 441-450.
- Hawkins, K., & Vel, P. (2013). Attitudinal loyalty, behavioural loyalty and social media: An introspection. *The Marketing Review*, 13(2), 125-141.
- Hayton, J. C; Allen, D. G; Scarpello, V. (2004). Factor retention decisions in exploratory factor analysis: a tutorial on parallel analysis. *Organizational Research Methods*, 7(2), 191-205.
- Heinonen, K. (2011). Consumer activity in social media: Managerial approaches to consumers' social media behavior. *Journal of Consumer Behaviour*, 10(6), 356-364.
- Kaiser, H. F. (1974). An index of factorial simplicity. *Psychometrika*, 39(1), 31-36.
- Kerlinger, F. N.; Lee, H. B (2008). *Foundations of behavioral research*. 5 ed. Independence, KY: Wadsworth Thomson.
- Kline, R. B. (2015). *Principles and practice of structural equation modeling*. 3rd ed. New York: The Guilford Press.
- Laros, J. A., & Puente-Palacios, K. E. (2004). Validação cruzada de uma escala de clima organizacional. *Estudos de Psicologia (Natal)*, 9(1), 113-119.
- Lee, C. S., & Ma, L. (2012). News sharing in social media: The effect of gratifications and prior experience. *Computers in Human Behavior*, 28(2), 331-339.
- Leninkumar, V. (2017). The relationship between customer satisfaction and customer trust on customer loyalty. *International Journal of Academic Research in Business and Social Sciences*, 7(4), 450-465.

- Liu, Q., Shao, Z., & Fan, W. (2018). The impact of users' sense of belonging on social media habit formation: Empirical evidence from social networking and microblogging websites in China. *International Journal of Information Management*, 43, 209-223.
- Malthouse, E. C., Haenlein, M., Skiera, B., Wege, E., & Zhang, M. (2013). Managing customer relationships in the social media era: Introducing the social CRM house. *Journal of Interactive Marketing*, 27(4), 270-280.
- Marolt, M., Zimmermann, H., Žnidaršič, A., & Pucihar, A. (2020). Exploring Social Customer Relationship Management Adoption in Micro, Small and Medium-Sized Enterprises. *Journal of Theoretical and Applied Electronic Commerce Research*, 15(2), 38-58.
- McCabe, M. B. (2017). Social media marketing strategies for career advancement: An analysis of LinkedIn. *Journal of Business and Behavioral Sciences*, 29(1), 85.
- Micheaux, A., & Bosio, B. (2019). Customer journey mapping as a new way to teach data-driven marketing as a service. *Journal of Marketing Education*, 41(2), 127-140.
- Mills, A. J., & Plangger, K. (2015). Social media strategy for online service brands. *The Service Industries Journal*, 35(10), 521-536.
- Myers, R. H. (1990). *Classical and modern regression with applications*. Belmont, CA: Duxbury Press.
- Ngoma, M., & Ntale, P. D. (2019). Word of mouth communication: A mediator of relationship marketing and customer loyalty. *Cogent Business & Management*, 6(1), 1580123.
- Nunan, D., Sibai, O., Schivinski, B., & Christodoulides, G. (2018). Reflections on “social media: Influencing customer satisfaction in B2B sales” and a research agenda. *Industrial Marketing Management*, 75, 31-36.
- Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory* (3rd ed.). New York: McGraw-Hill.
- Oliveira, M. L. M. M., & Veloso, A. R. (2015). Dysfunctional consumer behavior: Proposition of a measurement scale. *BBR-Brazilian Business Review*, 24-49.
- Oliver, R. L. (1999). Whence consumer loyalty?. *Journal of Marketing*, v. 63, p. 33-44.
- Ong, C. H., Lee, H. W., & Ramayah, T. (2018). Impact of brand experience on loyalty. *Journal of Hospitality Marketing & Management*, 27(7), 755-774.
- Pasquali, L. (2010). Instrumentos psicológicos: manual prático de elaboração. Laboratório de Pesquisa em Avaliação e Medida (LabPAM). *Instituto de Psicologia*. Brasília: Universidade de Brasília, Brasília, Distrito Federal, Brasil.
- Payne, A. (2012). *Handbook of CRM: Achieving excellence in customer management*. Oxford: Elsevier
- Payne, A., & Frow, P. (2005). A strategic framework for customer relationship management. *Journal of marketing*, 69(4), 167-176. <https://doi.org/10.1509/jmkg.2005.69.4.167>.
- Payne, A., & Frow, P. (2017). Relationship marketing: looking backwards towards the future. *Journal of services marketing*, 31(1), 11-15.
- Reichheld, F. F. (2003). The one number you need to grow. *Harvard Business Review*, 81(12), 46-54, 124.
- Reichheld, F. F. (2011). *A pergunta definitiva 2.0: Como as empresas que implementam o net promoter score prosperam em um mundo voltado aos clientes* (1ª ed). 224p. Rio de Janeiro. Elsevier.
- Ressel, L. B., Beck, C. L. C., Gualda, D. M. R., Hoffmann, I. C., da Silva, R. M., & Sehnem, G. D. (2008). O uso do grupo focal em pesquisa qualitativa. *Texto & Contexto Enfermagem*, 17(4), 779-786.
- Rossiter, J. R. (2002). The C-OAR-SE procedure for scale development marketing. *International Journal of Research in Marketing*, 19(4), 305-335.

- Rozzett, K., & Demo, G. (2010). Desenvolvimento e validação fatorial da escala de relacionamento com clientes (erc). *RAE-Revista de Administração de Empresas*, 50(4), 383–395.
- Rust, R. T., & Zahorik, A. J. (1993). Customer satisfaction, customer retention, and market share. *Journal of Retailing*, 69(2), 193-215.
- Scussel, F. B. C., de la Martinière Petrol, M., Semprebon, E., & Da Rocha, R. A. (2017). O que é, afinal, marketing de relacionamento? Uma proposta de conceito unificador. *Revista de Ciências da Administração*, 19(48), 9-23.
- Scussel, F., & Demo, G. (2019). The relational aspects of luxury consumption in Brazil: the development of a Luxury Customer Relationship Perception Scale and the analysis of brand personality influence on relationship perception on luxury fashion brands. *BBR. Brazilian Business Review*, 16(2), 174–190.
- Shahbaznezhad, H., Dolan, R., & Rashidirad, M. (2021). The role of social media content format and platform in Users' engagement behavior. *Journal of Interactive Marketing*, 53, 47-65.
- Shao G. (2009). Understanding the Appeal of User-Generated Media: A Uses and Gratification Perspective. *Internet Research*, 19(1), 7–25.
- Sheth, J. N., & Parvatiyar, A. (2002). Evolving relationship marketing into a discipline. *Journal of relationship marketing*, 1(1), 3–16.
- Sheth, J. (2017). Revitalizing relationship marketing. *Journal of Services Marketing*, 31(1), 6-10.
- Sin, L. Y., Tse, A. C., & Yim, F. H. (2005). CRM: conceptualization and scale development. *European Journal of marketing*, 39(11/12), 1264–1290.
- Sterrett, D., Malato, D., Benz, J., Kantor, L., Tompson, T., Rosenstiel, T., ... & Loker, K. (2019). Who shared it?: Deciding what news to trust on social media. *Digital Journalism*, 7(6), 783-801.
- Tabachnick, B. G., Fidell, L. S. (2019) *Using multivariate statistics*. 7.ed. Boston: Pearson Allyn And Bacon.
- Tang, J., & Liu, H. (2015). Trust in social media. *Synthesis Lectures on Information Security, Privacy, & Trust*, 10(1), 1-129.
- Trasorras, R., Weinstein, A., & Abratt, R. (2009). Value, satisfaction, loyalty and retention in professional services. *Marketing Intelligence & Planning*, 27(5), 615-632.
- Ursachi, G., Zait, A., & H., Ioana. (2015). How Reliable are Measurement Scales? External Factors with Indirect Influence on Reliability Estimators. *Procedia Economics and Finance*, 20, 679-686.
- Vel, P., Brobbey, C., Salih, A., & Jaheer, H. (2015). Data, Technology & Social Media: Their Invasive Role in Contemporary Marketing. *REMark: Revista Brasileira de Marketing*, 14(4).
- Villagra, N, Monfort, A, Sánchez Herrera, J. (2021). The mediating role of brand trust in the relationship between brand personality and brand loyalty. *Journal of Consumer Behavior*. 1–11.
- Voorveld, H. A. (2019). Brand communication in social media: A research agenda. *Journal of Advertising*, 48(1), 14-26.
- Wang, Z., & Kim, H. (2017). Can Social Media Marketing Improve Customer Relationship Capabilities and Firm Performance? Dynamic Capability Perspective. *Journal of Interactive Marketing*, 39, 15–26.
- Whiting, A., & Williams, D. (2013). Why people use social media: A uses and gratifications approach. *Qualitative Market Research*, 16(4), 362-369.