

The Role of Social Media Engagement in Customer Service: A Study on the Brazilian Financial Sector

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Abstract

This article investigates the importance of social media in customer service and relationships, causing engagement with the brand. For this, this research's corpus delimited the actions on social media of the five largest banks in Brazil in terms of customer volume. The data were collected and analyzed in two moments: first, through a structured questionnaire to test the use and importance of social media in the service and relationship of banks; second, through the collection of interaction and conversation data on the social media of each bank studied. The quantitative and descriptive research uses correlation and engagement analysis based on social media metrics. The results indicate the banks' different strategies to provoke engagement and relationship with their consumer audiences in each media, but the data reveal low engagement. However, consumers pointed out social media's relevance in seeking services and relationships with their banks, citing the convenience, speed, and accessibility it provides. The study concludes that consumers value banks' social media, especially looking for customer service and relationships. In contrast, interaction and conversation data showed that banks have a routine of working in this category, combining others with their products' promotion and sponsorships and events. However, it became clear that the engagement that the banks' social media actions generate is minimal, in proportion to the volume of their followers.

Keywords: metrics on social media, social media content management, engagement in social media, relationship with the consumer

1. Introduction

The presence of companies and brands on social media is increasingly more significant and intense, and modern technology has supported how companies and their customers/consumers interact (Shawky et al., 2019). A study carried out by the Center for Marketing Research at the University of Massachusetts Dartmouth among the 500 companies listed by Fortune 2019 shows that 99% are present on LinkedIn, 96% are active on X/Twitter, 95% on Facebook, 69% on YouTube, 54% has a Blog, and Instagram is increasing among companies and reached more than 10%, developing activities such as customer service, offering information about their products and services, in addition to creating entertainment actions and promoting their brands to build relationships with their consumers and potential consumers (Barnes, 2019).

Social media is not just a platform but a significant phenomenon that shapes the communication and relationship process between consumers and brands. This has piqued the interest of marketing researchers, highlighting the importance of understanding the complexities of these relationships, conversations, and consumer engagement in the interactive and digital context. This understanding is crucial for mapping the potential of producing engaging content and managing relationships between consumers and brands through these media.

With the advent of social media, consumers manifest themselves with greater frequency and intensity, exchanging ideas and experiences, making companies listen to these opinions to create and offer products and respond to their consumers (Carlson et al., 2019; Castillo-Abdul et al., 2022). As a result, Facebook, X/Twitter, Instagram, and YouTube have become relevant objects for developing and promoting more intimate relationships between brands and consumers (Chiusoli & Bonfim, 2020).

Studies on consumer engagement in social media have received increasing attention in the recent marketing literature (Briandana & Mihardja, 2020).

The conversation is a temporal, objective event organized between two or more actors, focused on interactions in a given context (Seabra, 2020). It can be monitored and measured through comments and shares. Evans and Hidalgo (2020) point out that the conversation symbolically exists in interactions such as likes or emoticons selection.

Through social media, consumers not only respond and interact with messages received from companies (Castillo-Abdul et al., 2022) but also reformulate and redistribute them within their network, expanding the reach of the content absorbed, that is, expanding the network to that other consumers have access to content and conversation.

A consumer's comment on a post initiates a conversation environment where other consumers can interact and debate the subject, highlighting their opinions and positions. In this context, it becomes essential for companies to actively monitor, measure, and analyze the conversation process through comments or shares. This analysis is crucial for understanding the brand's engagement type and how it can generate word of mouth.

Social media actions are a way for companies to reach consumers and promote engagement about content and brands since the networks created through social media encourage greater confidence in the content that circulates within it, much more than traditional advertising actions (Bicalho et al., 2018).

Considering several definitions of engagement in marketing studies proposed by professionals and researchers, all converge to analyze the interactive experience and create intimate relationships. It stands out as the main elements of engagement in social media: creating and publishing relevant content to consumers; making the content shareable and modifiable to increase participation; providing the idea of community and facilitating conversation instead of offering unidirectional marketing content (Howell et al., 2019).

Although engagement has received much attention in several marketing studies, only some have focused on consumer and brand engagement through social media (Schreiner et al., 2019).

Social media enable interaction and communication environments that generate engagement and relationships between consumers and brands (Abdel-Gayed et al., 2023). Social media is essential in consumer-brand relationships (Çekirdekçi, 2023). One reason for its popularity is the possibility that companies can create and share information with consumers. The main effect is promoting content and brands based on consumer interaction (Chuang & Chen, 2023).

Quantifying the volume of followers, likes, and views is a significant metric process for measuring the popularity of a profile or a post (Dong & Wang, 2024). The social media metric quantifies static or dynamic characteristics of the interaction, describing a state of conversation, a trend of engagement, or an evolution in the relationship between consumers and brands (Roncha & Radclyffe-Thomas, 2016).

Coelho et al. (2016) pointed out that the most notable characteristics and metrics for engagement in social media are:

- Facebook: emoticons, comments, and shares.
- X/Twitter: responses, likes, and retweets.
- Instagram: comments, likes, and views.
- YouTube: I liked it, I did not like it, comments, shares, and views.

The interaction and conversation process is also a way to measure engagement. Social media engagement is the link between interactivity and network conversation. Interactivity occurs only through enjoying or expressing approval or discontent using the resources of emoticons, such as liked, appreciated, loved, sad, amazed, and angry. For Castillo-Abdul et al. (2022), comments and shares allow for a better understanding of engagement and shares, and Paballo and Buthelezi (2023) warn that the act of "enjoying" does not generate effort on the part of the consumer, so it translates only as an interactivity action. This helps with engagement but requires more significant effort from the consumer, such as commenting and sharing.

Engagement is a connection between a company and its consumers focused on interaction and conversation, whose key element is exchanging information through social media and its marketing tools (Yum & Kim, 2024). Interactivity and conversation provide a fertile environment for engagement. Nevertheless, it is necessary to consider that the content must provoke the consumer and instigate a dialogue and position. There will only be interactivity or conversation if it was considered the content.

Social media allows companies and brands to communicate better with their consumers, expanding the brand's commitment from an idea of the relationship that can increase satisfaction, loyalty, trust, and word of mouth

(Triantafillidou & Siomkos, 2018). Therefore, the relationship between consumer and brand must be built based on interaction.

This interaction must occur efficiently and can be done through communication and interaction channels, collecting new information for each contact with the customer that allows him to identify more and more individually, which helps the company define its value for her. Also, each interaction should always occur from when the last one stopped, regardless of when the last contact was or in which medium it occurred (Ansari & Ali Khan, 2020).

Concerning brands such as banks, for example, Ajina (2019) proposes that to add value to the sale of financial services, it is essential to provide good service, while Franco de Godoi et al. (2020) stated that the perception of value is related to the perception of quality and customer satisfaction. Two aspects that can confirm this statement would be the continued relationship, or maintenance of actions that cause interaction and conversation, and the variability of actions and content proposed by Chan-Olmsted and Wang (2019). Since the service can provide a continuous relationship with the financial institution, and the quality of this service depends precisely on the entity that offers it, it is essential to maintain a good service and relationship to add value and gain customer loyalty.

We can also consider Ajina's (2019) proposition that a good relationship is only built on a range of satisfactory consumer services. Therefore, exploring the potential of the brand and its services is fundamental to provoking interaction. Shawky et al. (2019) proposed that relationships are companies' only tangible assets, as they provide long-term returns and low risks, mainly to corroborate the need for loyalty and provoke consumer loyalty.

According to Djunaid (2024), thinking about marketing and relationships consists of maintaining, attracting, and expanding interaction with the consumer, assuming that winning over new consumers is greater than the maintenance costs of the current ones. In another perspective, Kwestel and Milano (2020) defined the relationship as a process that provides continuous satisfaction and reinforcement to individuals or organizations that aim to build lasting consumer bonds.

Popescu and Badea (2020) noted that companies have implemented consumer retention and maintenance actions to obtain more reliable and lasting relationships. They focus on service because when well served, the consumer sells the product or service to everyone with whom they live.

Rock and Taber (2020) argue that the company makes a critical leap when thinking about each consumer, as it brings relevance to the value it represents and increases the possibility of making them more engaged. Therefore, having personalized communication articulated to the changes in digital technology provides a positive relationship environment, which has grown in recent years by expanding and allowing access anywhere, anytime, through smartphones, tablets, notebooks, or computers (Aljukhadar et al., 2020).

Understanding, which establishes a direct link between the consumer's needs and criteria, such as quality of service before and after the sale, is a factor in improving the relationship. Rock and Taber (2020) warn that consumers have moved from passive individuals to active agents in constructing and disseminating the contents of their interest, especially about digital technologies. Thus, the consumer built together the relationship (Ansari & Ali Khan, 2020).

Considering that the banking segment heavily involves service providers and their consumers, it is essential to maintain an intensified and more intimate relationship to provide more efficient service and relationships.

Sutter (2019) understands that a brand's online reputation is significant. Even without physical contact with the company, information obtained from digital channels, including complaints and consumer experience reports, can tell you everything about it. A brand that seeks relationships with active consumers on social media needs a broad view of the entire conversation process around its communication and marketing actions (Cramer, 2020).

The company that has the most to gain is the one that empowers its consumers to make suggestions, monitor processes, or perform tasks for them (Kirdemir, 2019). Shawky et al. (2019) point out that technological changes have brought a more active and critical consumer, requiring changes in the relationship between consumers and brands. This scenario takes on a broader dimension regarding the relationship through social media, where the conversation is fundamental.

The increasingly intensified use of social media to chat and relate to the consumer has made service and problem-solving a mandatory activity due to the characteristics of interaction with the consumer (Kalimeri et al., 2020). Wade (2019) states that consumers need a space to express their opinions and ideas about products or services, and it is up to companies to monitor this information to use it in future market decisions (Koch & Kinder-Kurlanda, 2020). Shawky et al. (2019) corroborate that social media services should be a direct

communication channel between the company and its consumers to hear opinions, suggestions, complaints, register, and act.

Although researchers have a consensus on the importance of consumer engagement for a brand's success, there has yet to be an agreement on the concept of consumer engagement. There are three major trends regarding the conceptualization of consumer engagement with the brand on social media (Triantafyllidou & Siomkos, 2018):

1. Engagement is a state of mind involvement and interest where the consumer reacts actively to the given stimuli.
2. The cognitive dimension of engagement is related to how the consumer perceives the brand, while the affective dimension reflects how consumers feel.
3. Consumer engagement is a psychological state that deals with behavioral processes, such as learning (gaining knowledge about brands), sharing (information and experiences), defending (recommending brands, supporting them in their actions and causes), socializing (developing attitudes towards others who interact with the brand), and co-developing products (contributing to the spontaneous development of new products).

This discussion around engagement to expand the relationship between consumers and brands based on social media content points to the need to articulate relationships as a form of engagement, especially when the scenario is social media. Thus, conversation and interaction also discuss how to manage content strategies to intensify the relationship between brands and consumers in interactive environments.

Therefore, the relationship is broader than service or problem-solving. Social media builds relationships with information, content, and entertainment to provoke interaction and conversion, intensifying them.

Many service brands invest time and resources in managing social media-based brands (Ebrahimi, 2024). Brands from different market segments increasingly promote sales, serve, and communicate with consumers through social media, applications, and websites (Triantafyllidou & Siomkos, 2018). According to data from the Brazilian Federation of Banks - Febraban, banking transactions grew more on mobile digital platforms, representing 70% of the volume of financial services, enabling a more significant relationship between banks and consumers (Fluid Insights, 2024).

Faced with a favorable scenario for brand-consumer interaction, as discussed above, this research points to the following question: How is the engagement of consumer audiences based on bank interaction on social media?

This work aims to analyze banks' practices in producing content on social media and the interaction of consumer audiences with such content, enhancing engagement based on the consumption of this content on social media.

2. Method

This research is characterized by its quantitative descriptive nature, with data collected through a structured questionnaire and interaction variables and conversation through social media in the corpus of this investigation.

To delimit the corpus of this research, the social media of content production with the highest volume of user access in the country selected as objects of data collection in this investigation: YouTube, Facebook, Instagram, and X/Twitter. Concerning banks, we opted for the five banks with the most massive volume of customers. Data from *Estadão* newspaper show the largest banks in the profits volume in the country, the five most massive beings are Itaú, Banco do Brasil, Bradesco, Santander, and Caixa Econômica Federal, respectively (Piovesana, 2024).

According to Kader and Franklin (2008), the primary data analysis involved descriptive statistics on the variables of the sample profile, the scale reliability test by Cronbach's Alpha value, and the relationship between the variables through Pearson's correlation.

The sample was extracted using the G*Power software, based on the following parameters: effect size $[p] = 0.175$; α err prob = 0.05; Power $(1-\beta$ err prob) = 0.95, which resulted in the projected sample size of 344 required respondents (with critical $t = 1.6493$), values that indicate the reliability of the sample obtained (Achcar & Barili, 2024).

The questionnaire's application resulted in a sample of 345 respondents, all bank customers/consumers with an active account. The tool used to construct the data collection was the Google survey. The scale used to measure the respondent's perception of the variables was Likert's, with 5 points, following the guidelines of La Marca et al. (2019), which indicate the use of this scale in online data collection, and Humphreys et al. (2019), which corroborate the use of this scale due to the ease of application and understanding of its use by the interviewees. The data were processed using the statistical software SPSS Statistics 22.

Several authors, such as Hutson (2019), state that it is difficult to apply a parametric test with a sample of fewer than 50 observations and that, preferably, the sample size should be equal to or greater than 100 observations. Therefore, Pearson's correlation analysis is adequate for this research's sample.

To statistically understand how the variables relate to each other, we opted for a Pearson correlation analysis, which provides a means of quantifying the degree of association between two variables (La Marca et al., 2019) so we can understand if there is a relationship between the demands for actions on social media, pointed out by the respondents. The correlation coefficients analysis considers the guidelines of Bishara and Hittner (2015), as shown in Table 1.

Table 1. Relationship between coefficients and significance of the correlation

| Coefficient | Correlation | Author |
|-------------------|-------------|-----------------------|
| $0,10 < r < 0,29$ | Weak | Cohen (1988) |
| $0,30 < r < 0,49$ | Moderate | Cohen (1988) |
| $0,50 < r < 1,00$ | Strong | Cohen (1988) |
| $0,10 < r < 0,30$ | Strong a | Dancey e Reidy (2005) |
| $0,40 < r < 0,60$ | Moderate | Dancey e Reidy (2005) |
| $0,70 < r < 1,00$ | Strong | Dancey e Reidy (2005) |

Given the variation between the central interpretation of the strength of the coefficient r , we take as a significant basis a weak correlation for $r \leq 0.3$, a moderate correlation for $0.3 < r \leq 0.6$, and a strong correlation for values of $r > 0.6$, considering both the values of positive correlations, as well as those of negative correlations. For this research, we preferred to highlight the correlations greater than 0.5, which, in Table 1, is at least a moderate correlation (Dancey & Reidy, 2017), which can be considered the beginning of a strong correlation (Cohen et al., 2013).

The secondary data collection took place through social media, which is expected for the five banks analyzed. Data on the volume of followers and the number of interaction actions (Facebook: emoticons, comments, and shares; Instagram: visualization, liked and commented; YouTube: liked, disliked, shares, comments, and views; X/Twitter: responses, likes, and retweets) on the last 10 of each social media before March 31, 2024.

The content categories (Table 2), common to all banks, allow for the verification of each bank's content production profile in each media and how consumers respond to the content through interactivity and conversation metrics.

Table 2. Categories of content promoted on banks' social media

| Categorie | Description |
|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Service and Relationship | Actions that aim to support consumers about doubts and news from banks, such as application usage, credit card interest, ways to get financing, or tips on internet banking, among others. |
| Events and Sponsorships | Banks participation in sports, cultural and educational events, support and sponsorship, among others. |
| Institutional | Directly linked actions to reinforce each bank's brand, highlighting its actions, mission, and values. |
| Products | Credit card disclosure content, pension plans, checking and savings accounts, capitalization plans, and insurance, among others. |

These procedures were adopted so that it was possible to compare consumers' perceptions of the importance of banks' social media and how they dialogue through interaction and network conversation to verify whether there is engagement in this relationship between brand and consumer.

The analysis is conducted in two stages: first, the primary data, derived from the application of the questionnaire to understand the demands of consumers about the bank's social media actions, involved the statistics measure of the scale reliability, test by Cronbach's Alpha value, and the relationship between the variables through Pearson's correlation. Second, the secondary data, collected through the social media of each bank to verify the content

profile used by banks in each social media, the process of interactivity and conversation and the link between the result of the analysis of consumption metrics, such as reach, engagement, and conversion rates, on social media versus customer service and relationship demands. This process points out which are the most favorable scenarios in each media and which banks have the best results in consumption and interaction with the content worked. The findings of this analysis have practical implications for banking professionals, social media strategists, and researchers interested in consumer behavior, empowering them with the knowledge to make informed decisions about their social media strategies.

3. Results

The sample of 345 respondents, a diverse group, has the following profile: 54.5% female respondents and 44.5% male, aged between 18 to 25 years (30.3%), 26 to 35 years (26.2%), from 36 to 45 years old (18.6%), from 46 to 55 years old (13.1%) and above 55 years old (2.8%).

Of the respondents, 60% have completed a degree or engaged in post-graduate work, reflecting a high level of education. Most of the sample, 40%, earn an average income of 3 to 8 minimum wages, with only a tiny percentage (2.8%) earning one minimum wage.

About the bank to which the respondent is an account holder, the proportion was 25% for Itaú, 22% for Banco do Brasil, 21% for Bradesco, 17% for Santander, and 15% for Caixa Econômica Federal respectively. The means of service most used by respondents to carry out their banking demands are highlighted by digital means; a significant 75.2% of consumers surveyed use applications via smartphone and internet banking via computer. However, only 1.4% of the sample use social media as a service, despite 98% of the sample claiming to consume social media from their banks.

In sequence with the profile, 12 variables (Figure 3) measure the levels of recognition of the strength that the brand has concerning the service formats through social media (SB), service efficiency and relationship through social media (SR), and comparison of the superiority of social media over traditional media (CO), based on the studies by Pelletier and Horky (2015).

Table 3. Analysis variables on banks' social media

| Variable | Description |
|----------|-----------------------------------------------------------------------------------------------------------------------|
| SB1 | I easily recognize my bank's service channels through social media |
| SB2 | My bank's reputation makes me recognize the security of using customer service channels through social media |
| SB3 | My bank has a strong brand, including social media |
| SB4 | My bank has greater relevance than other banks in serving through social media |
| SR1 | My bank offers varied and innovative forms of service using technologies that enable service at anytime from anywhere |
| SR2 | My bank's social media service channels are more efficient |
| SR3 | I am satisfied with my bank's service channels on social media |
| SR4 | The service through social media promoted by my bank makes the relationship easier |
| CO1 | The social media service provided by my bank saves me time compared to other traditional forms |
| CO2 | Service through social media brings more convenience than more traditional means |
| CO3 | Service through social media is faster and more agile than more traditional media |
| CO4 | Service through social media is more efficient than more traditional means |

Note. SB = brand strength; SR = service and relationship; CO = social media cover over traditional media.

The first test performed with the group of variables was Cronbach's Alpha, which measured the scale's reliability and continued the study of the correlations between the variables (Table 4).

Table 4. Reliability of the scale and correlation between variables

| | SB1 | SB2 | SB3 | SB4 | SR1 | SR2 | SR3 | SR4 | CO1 | CO2 | CO3 | CO4 |
|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| SB1 | ,917*** | | | | | | | | | | | |
| SB2 | ,640** | ,917*** | | | | | | | | | | |
| SB3 | ,625** | ,512** | ,917*** | | | | | | | | | |
| SB4 | ,525** | ,501** | ,609** | ,917*** | | | | | | | | |
| SR1 | ,597** | ,547** | | ,532** | ,917*** | | | | | | | |
| SR2 | ,617** | ,578** | ,548** | ,612** | ,510** | ,917*** | | | | | | |
| SR3 | ,661** | ,601** | ,567** | ,523** | ,601** | ,713** | ,917*** | | | | | |
| SR4 | ,681** | ,624** | ,512** | ,538** | ,665** | ,527** | ,617** | ,917*** | | | | |
| CO1 | ,646** | ,595** | ,537** | ,505** | ,691** | | ,597** | ,876** | ,917*** | | | |
| CO2 | | | | | | | | ,506** | | ,917*** | | |
| CO3 | | | | | | | | | | ,598** | ,917*** | |
| CO4 | | | | | | | | | | | ,513** | ,917*** |

Note. *Sig. 0,05; **Sig. 0,01; ***Alpha of Cronbach; N= 345.

The correlation matrix (Table 4) shows only correlations greater than 0.5, indicating the observation around variables that establish a minimally strong relationship. In this sense, the variables SB1 and SR4 stand out, which address the ease of recognizing banks' social media and the ease that the use of these media causes in service and relationships, respectively, are the variables that best articulate with the others, making them more relevant to understand the efficiency of communication and marketing actions aimed at the relationship. Furthermore, it is precisely the articulation of SR4 with CO1 that there is the best correlation, which tests the time gained in social media use for care and relationships.

However, the comparison variables between social media and traditional means of service and relationships do not cause good correlations with the other variables. This indicates that conventional forms of service and relationships are included in the range of consumer options, making social media an essential channel without the ability to extinguish others. After analyzing the relationships between the variables to understand that social media is a virtual channel in the relationship, the second stage of data collection was about each social media's interactions and conversations in this study (Table 5).

Table 5. Audience of followers on banks' social media

| Brand | Facebook | Instagram | X/Twitter | YouTube | S N* |
|-----------------|-----------|-----------|-----------|---------|-----------|
| Banco do Brasil | 2.470.991 | 47.700 | 170.843 | 20.143 | 2.709.677 |
| Bradesco | 5.046.279 | 97.400 | 142.774 | 191.578 | 5.478.031 |
| Caixa | 2.758.423 | - | 132.277 | 19.047 | 2.909.747 |
| Itaú | 8.681.242 | 176.000 | 610.103 | 239.548 | 9.706.893 |
| Santander | 2.779.992 | 43.800 | 176.265 | 70.992 | 3.071.049 |

Note. * Size of Network.

Banks have a very different number of followers, making comparing raw data difficult. For example, Banco Itaú's social media followers network is almost four times larger than Banco do Brasil's (Table 5). For this reason, interactivity and engagement data are in percentages (Table 6).

Table 6. Facebook engagement

| Brand | Categorie | Freq.* | Interactivity** | Engagement*** |
|-----------------|--------------------------|--------|-----------------|---------------|
| Banco do Brasil | Service and Relationship | 20% | 5% | 0,063% |
| | Events and Sponsorships | 60% | 0,3% | 0,009% |
| | Institutional | 20% | 0,022% | 0,005% |
| Bradesco | Service and Relationship | 60% | 0,431% | 0,02% |
| | Events and Sponsorships | 40% | 0,378% | 0,06% |
| Caixa | Service and Relationship | 70% | 0,161% | 0,035% |

| | | | | |
|-----------|--------------------------|-----|--------|--------|
| | Events and Sponsorships | 10% | 0,007% | 0,002% |
| | Institutional | 10% | 0,016% | 0,003% |
| | Products | 10% | 0,484% | 0,033% |
| | Service and Relationship | 50% | 0,07% | 0,01% |
| Itaú | Events and Sponsorships | 40% | 0,62% | 0,02% |
| | Products | 10% | 0,2% | 0,002% |
| | Service and Relationship | 30% | 0,04% | 0,009% |
| | Events and Sponsorships | 10% | 0,011% | 0,006% |
| Santander | Institutional | 10% | 0,024% | 0,005% |
| | Products | 50% | 0,129% | 0,014% |

Note. *Proportion of category occurrence, **Proportion of *emoticons*, ***Share and comment ratio.

Facebook is the media that concentrates the most massive volume of connections between banks and consumers, and it can be from the data in Table 3 shows that Itaú, Bradesco, and Caixa are the banks that produce content focused on Customer Service and Relationships. At the same time, Banco do Brasil promotes Sponsorships and Events, and Santander focuses on promoting its Products.

Table 7. Instagram engagement

| Brand | Categorie | Freq.* | Interactivity** | Engagement*** |
|-----------------|--------------------------|--------|-----------------|---------------|
| | Service and Relationship | 20% | 3,22% | 0,041% |
| Banco do Brasil | Events and Sponsorships | 50% | 3,53% | 0,032% |
| | Products | 30% | 11,23% | 0,11% |
| Bradesco | Service and Relationship | 20% | 1,17% | 0,03% |
| | Events and Sponsorships | 80% | 1% | 0,025% |
| | Service and Relationship | 30% | 0,246% | 0,007% |
| Itaú | Events and Sponsorships | 60% | 1,34% | 0,016 |
| | Institutional | 10% | 0,5% | 0,018% |
| | Events and Sponsorships | 70% | 1,11% | 0,033% |
| Santander | Institutional | 30% | 2,37% | 0,1% |

Note. *Proportion of category occurrence, **Proportion of *emoticons*, ***Share and comment ratio.

Table 7 displays consumer engagement results for Instagram media. Caixa does not appear in these results, as it has no official Instagram profile.

Table 8. X/Twitter engagement

| Brand | Categorie | Freq.* | Interactivity** | Engagement*** |
|-----------------|--------------------------|--------|-----------------|---------------|
| Banco do Brasil | Service and Relationship | 30% | 0,02% | 0,01% |
| | Events and Sponsorships | 70% | 0,019% | 0,007% |
| Bradesco | Service and Relationship | 20% | 0,177% | 0,036% |
| | Events and Sponsorships | 80% | 0,584% | 0,126% |
| | Service and Relationship | 60% | 0,031% | 0,011% |
| Caixa | Events and Sponsorships | 20% | 0,008% | 0,004% |
| | Products | 20% | 0,5% | 0,01% |
| Itaú | Service and Relationship | 90% | 0,008% | 0,003% |
| | Events and Sponsorships | 10% | 0,046% | 0,006% |
| | Service and Relationship | 20% | 0,004% | 0,004% |
| | Events and Sponsorships | 10% | 0,028% | 0,014% |
| Santander | Institutional | 10% | 0,011% | 0,007% |
| | Products | 60% | 0,06% | 0,043% |

Note. *Proportion of category occurrence, **Proportion of *emoticons*, ***Share and comment ratio.

Table 8 shows the results of consumer engagement levels with banks in their actions carried out on X/Twitter.

Table 9. YouTube engagement

| Brand | Categorie | Freq.* | Interactivity** | Engagement*** |
|-----------------|--------------------------|--------|-----------------|---------------|
| Banco do Brasil | Service and Relationship | 10% | 165,5% | 1,25% |
| | Events and Sponsorships | 70% | 13% | 0,03% |
| | Institutional | 20% | 10,33% | 0,12% |
| Bradesco | Service and Relationship | 20% | 3,6% | 0,004% |
| | Events and Sponsorships | 70% | 136,32% | 0,033% |
| | Products | 10% | 1.485,85% | 0,02% |
| Caixa | Service and Relationship | 70% | 4,65% | 0,05% |
| | Institutional | 10% | 4,6% | 0,06% |
| | Products | 20% | 40,4% | 0,05% |
| Itaú | Service and Relationship | 80% | 130,85% | 0,25% |
| | Institutional | 10% | 1,47% | 0,02% |
| | Products | 10% | 6,7% | 0,03% |
| Santander | Service and Relationship | 40% | 22,43% | 0,17% |
| | Institutional | 20% | 7,95% | 2,25% |
| | Products | 40% | 5.597,94% | 3,8% |

Note. *Proportion of category occurrence, **Proportion of *emoticons*, ***Share and comment ratio.

YouTube (Table 9) is the social media that causes greater interactivity due to the number of video views that go beyond 100% of the network; that is, the number of views is greater than the number of people who subscribe to the channel.

4. Discussion

The results presented in the previous section show a correlation between the studied variables. FM1 and AR4 stand out. These variables address the ease of recognizing the banks' social media and the ease that the use of these media causes in service and relationships, respectively. They best articulate with the others.

Tables 6, 7, 8, and 9 show the specific engagement results of Facebook, Instagram, X/Twitter, and YouTube media engagement. It is possible to observe the different forms these engagements take, whether due to the banks' actions or each media's specific characteristics.

The engagements produced in these social media have important particularities, such as media and brand recognition, identification of bank actions, and their interactions with different social media. More importantly, they offer a significant opportunity to build a brand reputation through social media. This potential is a reason for optimism and further exploration.

Specifically, on social media engagement, it is noteworthy that Facebook (table 6) also states that the conversation rate around the content is meager concerning the proportion of the number of people each action reaches. None of the actions caused an interaction greater than 1% of the network, and the conversation is even lower. The proportion of the return on interaction is less than 10 to 1000 people reached in each action. Furthermore, about the conversation, this number is less than 1 for every 1000. Concerning Instagram (Table 7), the proportions follow the same interaction and proportional conversation pace. However, there is a change in Itaú, Santander, and Bradesco's attitude, which has a higher frequency of content in Events and Sponsorships, changing the focus of the content about this social media. It is also noteworthy that Banco do Brasil produced better interaction between all banks, exceeding 10% of interaction, promoting content aimed at its financing and credit card products. What can explain this rate proportionally much higher than the other competitors is that the image of the character Dona Ermínia, from the film *Minha Mãe é uma peça* (My Mother is a joke), is part of the bank's current campaign in all media, traditional and digital.

X/Twitter (Table 8) presents proportions more like those of Facebook (Table 6); however, the only bank that maintains its content strategy like that of Instagram (Table 4) is Bradesco, keeping the focus on promoting its actions, Sponsorship, and Events. YouTube (Table 9) has a higher performance in interactivity, notably due to the repetition of viewing the video, sharing the video in other media and profiles, expanding access to the content of a more significant number of consumers, and the behavior (most common on YouTube) of watching videos

without necessarily being a user subscribed to the channel.

Even so, the data from Santander about the Products category reaches more than 5,000 percent of the proportion of interaction. This is because these videos are linked explicitly to the Netflix series. They are videos to promote credit cards but focused on promoting the series and subscription. Although this unique content strategy may seem unrelated to the bank's products, it has remained consistent with the success in causing interactivity and increasing the brand's popularity. This impact of unique content on engagement is inspiring and worth considering in future strategies.

It is possible to perceive the difference in the performance of banks' content about the type of conversation they seek to establish with their consumers through the content they promote and the kind of relationship they desire. Finally, interactions and conversations could be proportionately higher in all bank media, producing more engagement.

In general, Brazilians are highly engaged in social media, revealing that corporate communication through these media has a significant influence on people's behavior. In the financial sector, this reality is no different from other sectors of the economy, and, as can be seen in the data from this survey, when stimulated, society reacts favorably. Regarding the regulation of social media in Brazil, the discussion has been guided more by the political aspect than by the commercial aspect, and the content broadcast by banks has complied with the regulations of the Central Bank of Brazil.

5. Conclusion

The primary objective of this research was to examine the significance of banks' service and relationship-building on social media and their ability to engage consumers through content actions. The literature review underscored the crucial role of relationships in driving engagement, highlighting the potential of social media to foster discussions and interactions that strengthen relationships and ultimately drive consumer engagement.

The data analysis revealed that consumers highly value banks' presence on social media, particularly for customer service and relationship-building. However, it also showed that banks predominantly combine promotional content, sponsorships, and events, with minimal emphasis on interaction and conversation. As a result, the level of engagement generated by banks' social media activities was disproportionately small relative to their follower count. This low level of engagement underscores the need to enhance social media content and monitor and evaluate which content drives better interaction and conversation to achieve more substantial engagement.

This research's main limitation is the volume of data collected, which needs a greater sense of consumer behavior about the content stimuli proposed by banks to be more expressive. In this sense, it is recommended that future research expand the collected database, notably the secondary database, and dedicate itself to using more robust statistical tests.

In conclusion, conducting similar surveys across other segments and brands could help determine the scenarios and strategies that best drive brand engagement based on the research's findings and limitations.

Informed consent

Obtained.

Ethics approval

The Publication Ethics Committee of the Canadian Center of Science and Education.

The journal and publisher adhere to the Core Practices established by the Committee on Publication Ethics (COPE).

Provenance and peer review

Not commissioned; externally double-blind peer reviewed.

Data availability statement

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

Data sharing statement

No additional data are available.

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