

TAILORING VIRTUAL CONNECTIONS: the role of online communities in purchasing decisions

TECENDO CONEXÕES VIRTUAIS: o papel das comunidades online nas decisões de compra TEJIENDO CONEXIONES VIRTUALES: el papel de las comunidades en línea en las decisiones de compra

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ABSTRACT

The way people consume has been influenced by the digital age and the constant use of social networks, often leading to the creation of online communities. This research aimed to analyze how online communities shape customers' purchasing decisions. For this purpose, six (6) in-depth surveys were applied to members of an online community. The analyses were performed trough QDA Miner software. The results highlight the importance social and emotional interactions, of collaboration and resource exchange among members, as well as the influence of online interactions on participants' purchasing decisions and lifestyle, emphasizing on opportunities for interaction and knowledge sharing within the community.

KEYWORDS: Consumer Behavior; Affective Economy; Experience; Social Interactions; Text Mining.

Introduction

The advent of the digital age has, significantly, transformed the way people interact, share information and make decisions, especially related to consumption. In this scenario, online communities emerge as virtual spaces for social interaction, where participants share common interests, establish emotional connections and, notably, influence their purchasing decisions. In this sense, the online community's phenomenon has become a relevant field of study, requiring deeper understanding of the social and economic processes that permeate it.

The concept of community is intrinsic to human nature, dating back to historical periods in which interpersonal relationships were fundamental to survival and collective well-being. Tönnies (2002) differentiated community from society, emphasizing the organic nature, proximity and dense personal ties observed in communities. From this perspective, communities represent social groups linked by affinities, shared values and interdependence, as mentioned by Thibault and Kelley (1959). In the contemporary context, the evolution of the concept of community incorporates the dynamics of



online communities, in which social ties transcend geographical barriers, providing a platform for diverse interactions.

The transition to online communities, as analyzed by Rheingold (2000), is flagged by the capacity for technology-mediated interaction, promoting connectivity among globally dispersed members. In these virtual communities, cohesion is fueled by common interests, hobbies or specific goals, providing a space for instant sharing of information and experiences. The constant interactivity and asynchronous nature of online communities offer a unique dynamic, allowing participants to develop emotional relationships, share knowledge and forge digital identities that transcend to physical environment.

Is in this context where the economics of affection is introduced, emerging as a central concept to understand the relationships between consumers and brands. McAlexander et al. (2002) proposed this concept, highlighting the influence of emotions on purchasing decisions. Contrary to the traditionally utilitarian approach, the economics of affection recognizes that emotional connections are relevant shaping consumer preferences and loyalty. This perspective suggests that consumers seek not only products or services, but also emotional experiences that resonate with their identities and values (Habibi et al., 2014; Kaur et al., 2020; Barreda et al., 2020; Lee and Hsieh, 2022).

The economy of affection reflects the understanding that emotional interactions impact on consumer perception of a brand (Bicalho & Medeiros, 2023). This approach highlights the importance of creating meaningful experiences going beyond the functional characteristics of any product. In a context of online communities, where relationships are digitally mediated, the economy of affection takes on a particularly relevant dimension, since emotional interactions are significantly important in building and maintaining connections between community members and their consumption choices (Kamalasena & Sirisena, 2021).

As being said, and considering the growing importance of online communities as influencers in purchasing decisions, there is a need to explore, deeply, every mechanism underlying this phenomenon. The question that guides this research then arises: How do established relationships in online communities' influence purchasing decisions, considering the economy of affection?

In order to answer the research problem, the general objective here was to analyze the role of online communities in the formation of purchasing decisions, highlighting the economy of affection influence through this process. To achieve the



general objective, the specific objectives are: i) to investigate the nature of the affective relationships established in an online community; ii) to identify how emotional interactions in the online community impact purchasing decisions; iii) to identify behavioral patterns related to the economy of affection within these communities.

Material and Methods

Data collection and analysis were applied in a single stage, consisting of interviews with people making part of an online WhatsApp community. Following Creswell's (2016) approach, the intentional selection of participants was guided by the objective of deeply understanding the research problem. In this sense, a non-probabilistic convenience sampling was chosen, given the ease of access to the participants in the studied population, as suggested by Saumure and Given (2008).

The sample size was not predefined and was determined by responses' saturation, as recommended by Sampieri et al. (2013). The interviews were conducted in person, recorded and then transcribed for further analysis. It should be noted that this study was not submitted to the Research Ethics Committee [CEP] because it falls under the exception I, Resolution 510 of the National Health Council [CNS].

Data analysis followed the phases proposed by Bardin (2015). Initially, a bibliographic review was executed to guide the development of the interview script. The interviews were transcribed and categorized according to pre-defined categories. In this sense, the documents were read to establish contact with the data, as well as the appropriate categorization.

For the analysis, QDA Miner software was used, aimed with its WordStat module version 7.1.21, which allowed text mining techniques. In addition, the software applied frequency analysis, TF-IDF index and cluster analysis. In the analysis process, the standard exclusion dictionary provided by the software was used in order to erase words that do not contribute to the research, such as articles and pronouns.

Faustino-Dias (2019) and Faustino-Dias et al. (2020) explained that the TF-IDF index assumes the frequency of a term in a document indicating its content representativeness in that document. However, the more documents containing the term, the less distinct it becomes. Thus, the high frequency of any term does not guarantee its relevance in the analyzed set of documents.

For cluster organization, Jaccard Coefficient (Jaccard, 1912) was used, while the Silhouette method (Rousseeauw, 1987) was applied to verify clusters' quality.



According to Provalis (2020), Jaccard Coefficient works as a tool calculating similarities between data sets, resulting in coefficients varying between 0 and 1.

The Silhouette method, as well, is used to increase the efficiency finding relationships between items allocated in the same clusters, together with a global statistical coefficient assessing the overall quality of a cluster solution. Statistical coefficients range from -1 to +1, where positive values indicate a correct cluster distribution, while negative values suggest erroneous distribution (Provalis, 2020).

Sociodemographic characteristics and community participation

The sample was composed by six participants. Initially, we sought to understand the profile of the sample. Since this is a community focused in terms of female empowerment, sexuality and self-care; the sample consisted only of women. In this research were registered information about education, age and ethnic self-perception, disregarding information related to income avoiding any type of embarrassment for the participants.

Regarding ethnic self-perception, the sample was predominantly identified as white (83%), and only one participant identifies her-self as a afro descendent woman (17%). About participants' education, 50% informed to have completed higher education and the other 50%, postgraduate studies. Participants' ages ranged from 29 to 51 years old. Table 1 shows the characteristics of each participant, as well as the coding used to present the narratives of each of the participants.

Table 1 - Participant characteristics and coding

Education	Gender	Age	Ethnic	Code
Graduation	Female	51	White	E1
Postgraduate studies	Female	32	White	E2
Graduation	Female	40	White	E3
Postgraduate studies	Female	29	White	E4
Graduation	Female	46	White	E5
Postgraduate studies	Female	40	Black	E6

Source: Original research results.

After profile verification of every participant, they were asked about how often they send and receive contributions to the community. In this sense, Figure 1 shows the frequency with which the participants send contributions to the community. Figure 2 shows the frequency with which the participants receive contributions sent by other members of the community.



Figure 1 shows that when the matter is to send a contribution, the majority of participants said they rarely make contributions (67%), while 33% say they send contributions at least once a week. On the other hand, when it comes to receiving contributions from the community (Figure 2), 17% said they receive them daily, while 67% weekly and 16% rarely.

Weekly 33%

Rarely 67%

Figure 1 - Frequency of submission of contributions to the community

Source: Original research results.

These results demonstrate that members participate, actively and passively, in online communities. With the passive profiles, participants demonstrate the highest percentages of interaction, suggesting the need for alternatives to increase the levels of active participation. Bishop (2007) emphasizes that encouraging participation is one of the biggest challenges for online communities. The author adds that without active member's participation, the community does not flourish and may cease to exist or reduce its engagement. However, Malinen (2015) emphasizes that participation in communities, although a fascinating aspect of communities, is also a challenging factor. This is because generating content can be challenging for users who act as producers of the content that will be consumed by other members of the community.

In this sense, it is necessary that community mediators, if there is any, encourage members to participate in the proposed discussions, as well as in suggesting new discussions. Blanchard and Markus (2002), for example, found that online participation is linked to many positive results, indicating greater member loyalty and satisfaction with the online community.



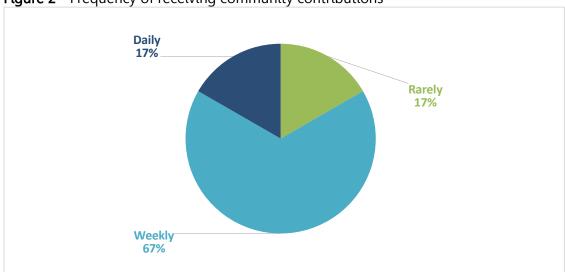


Figure 2 - Frequency of receiving community contributions

Source: Original research results.

As seen in figure 2, participation in online communities is essential for community success. However, there are other variables that must be considered to understand how behaviors are formed in communities, especially in the process of influencing members' purchasing decisions. In this context, the following section presents the results of the content analysis, specifically text mining.

Content Analysis and Text Mining

This section presents the results of the content analysis. Text mining techniques were used for this purpose, as well as excerpts from the participants' narratives. It is important to mention that for the analysis, the participants were asked about standard procedures of the online community in which they participate, in order to identify how the economy of affection, purchasing decisions, emotional connection, the power structure in the community, the variety of opinions and exchanges of experiences and the political aspects of the community work.

Initially, the interviews were entered into the QDA Miner software platform to verify basic characteristics regarding the content of the narratives. In this sense, with the help of the WordStat module, Figure 3 summarizes graphically the frequency of the words.



Figure 3 - Word cloud of participants' narratives



Source: Original research results.

As result, the word "community" was the most frequent, totaling 154 appearances. It is important to highlight that the frequency of the word occurs in different contexts. For example, in E1's narrative in which she got to know the community and how it added value to her.

I met the Brisabela community at an event celebrating International Women's Day, where I had the opportunity to showcase my products. More than just sales, that day introduced me to a series of women with similar ideals to mine, allowing me to become part of this community of so many women that I admire (Interview Excerpt – E1).

In E2's narrative, for example, the word appears to indicate the way in which the community influences the decision-making processes of its members. In her words, she says:

I believe that interactions offer great influence on purchasing decisions. A bond of trust is established within the community and, thus, it is known that feedback and recommendations are legitimate and real. This gives authenticity to these interactions (Interview Excerpt – E2).

These narratives are aligned with the online community's grouping framework developed by Hagel (1999). For the author, participants in online communities come together due to four main categories: interest-based, relationship-based, fantasy-



based, and transaction-based. In the narratives presented, it is observed that the community fits into almost all the categories mentioned by the author, with the exception of the fantasy-based category.

On the other hand, E3 highlights that the community itself has important characteristics for its continuity, mainly related to affection between members. For her "... members express affection in different ways in the community, whether through support messages, advice or sharing personal experiences". She also highlights that "[...] affective relationships play a crucial role in interactions, creating an atmosphere of support and understanding."

E3's narratives are aligned with Kamalasena and Sirisena (2021) point of view, since they highlight the importance of emotional interactions for building and maintaining connections, as well as consumption patterns. Furthermore, these interactions can make relationships more lasting, impacting directly consumer perception (Bicalho & Medeiros, 2023).

The word "exchange" was considered, in this research, the second most frequent word (44). Regarding this word in particular, it is linked with two specific possibilities. The first one, related to the processes of emotional exchanges, while the second is related to commercial exchanges.

Adler and Christopher (1999) point out that online community members develop several emotional benefits depending on the communities they join. These consider inclusion, information and experiences sharing, needs satisfaction and mutual influence, among others. In the online community studied, it is clear that the benefits highlighted by the authors are achieved. When questioning participants about the impact that the community has on their lives, E4's narrative stands out. [...] self-esteem, empowerment, confidence to make decisions, feeling safe within a support network, space for exchanges on taboo topics that cannot be discussed anywhere (Interview Excerpt – E4).

Regarding commercial exchanges, Huang and Benyoucef (2013) argue that online communities are responsible for exchanging information through conversations between members, and as result there is the creation of values for any item. In this context, online communities are significantly relevant for establishing trust and reputation around products and services, directly influencing consumers' purchasing decisions.

Furthermore, constant interaction between community members enables the greater understanding of preferences and needs of a specific audience, informing



marketing strategies and product development. Thus, the exchange of information and experiences within these communities can, positively, impact commercial exchanges, strengthening ties between consumers and brands and driving business growth (Faraj and Johnson, 2011). Regarding commercial exchanges, E5's narrative highlights the following points of view: [...] Specific recommendations and experience reports influence my choices [...]. Trust in the community is very important, as it is a determining factor in the exchange of information about products and services (Interview Excerpt – E5).

Next, the words "decision", "interactions" and "experience" were the most frequent appearing 39, 37 and 35 times, respectively. As already observed in the participants' narratives, the online community are significantly relevant in their decisions, which often occur due to interactions between participants.

About the word "experience," it is important to highlight that, as presented by Blanchard and Markus (2004), members of online communities typically experience varied situations, emphasizing feelings of community belonging and symbolism, influences on future behaviors, support exchange and emotional connections shared among members. In this context, E6 highlights his experience considering commercial characteristics experienced in the community.

[...] two aspects that contributed significantly to my positive experience: the personalized service whenever I made a purchase and the incredible women's fairs in a welcoming and inclusive environment. In addition to the opportunity to meet inspiring women, share experiences and strengthen connections (Interview Excerpt – E6).

It is observed that the narrative not only contextualizes the commercial scenario, but highlights the relevance of established connections within the online community. In addition, it makes relevant the importance of transcending the virtual environment, bringing interactions to the physical world, where members may get together and further strengthen their bonds, since this meeting space promotes greater proximity between participants, fostering stronger and more collaborative relationships.

Given the scenario presented so far, it is possible to note that online communities have a strong impact on their members' behavior. It must be noted that the most frequent words can demonstrate strong impacts on participants' narratives.



However, it is extremely important to understand which words, even with reduced frequency, were considered important, based on the TF-IDF index (Table 2).

It is important to remember that, as mentioned by Faustino-Dias (2019) and Faustino-Dias et al. (2020), the pertinence of any word in the set of documents analyzed, in the present case, narratives, is not linked to its frequency. In other words, a word may be relevant even if it occurs with less frequency than others.

Table 2 - Words with the highest frequency and relevance on participants' narratives

Word	Frequency	% shown ¹	%processed ²	%total ³	TF-IDF
Indication	10	0.51	0.36	0.17	4.8
Belief	05	0.26	0.18	0.09	3.9
Person	22	1.12	0.80	0.38	3.9
Opportunity	06	0.31	0.22	0.10	2.9
Sale	05	0.26	0.18	0.09	2.4
Desire	05	0.26	0.18	0.09	2.4
Generate	05	0.26	0.18	0.09	2.4
Like	05	0.26	0.18	0.09	2.4
Store	13	0.66	0.47	0.22	2.3

Source: Original research results.

Note: (¹) Percentage based on total number of words displayed by software; (²) Percentage based on total number of words found during analysis; (³) Percentage based on total number of words with exceptions to those excluded

Considering TF-IDF index, Table 2 showed the words with the greatest relevance in the analyzed narratives, discarding all words that obtained a TF-IDF value lower than 2.0. It is observed that, due to the analysis of a smaller set of documents, TF-IDF values obtained in this research tend to be lower when compared to those in previous studies by Faustino-Dias (2019) and Faustino-Dias et al. (2020), in which the volume of documents was significantly higher (5166 and 371, respectively).

With that being said, the word with the greatest relevance in this research was "indication" (TF-IDF = 4.8), followed by "belief" (TF-IDF = 3.9), "person" (TF-IDF = 3.9) and "opportunity" (TF-IDF = 2.9). It can be noticed that the online community analyzed concerns a community for exchanging experiences, information and products/services, thus reinforcing the reason why the word "indication" is the most relevant.

Furthermore, it must be highlighted that the significant presence of these words suggests a particular emphasis on building interpersonal relationships and valuing opportunities for interaction, and sharing, within the community. Such aspects are considered of fundamental importance to the community, as a facilitating space for knowledge exchange, mutual support and personal and professional development, as well as trust. In the narratives of E1, E2, E5 and E6 it is possible to visualize this importance.



Trustful feelings between community members occur in a place of identification. As I understand, people with similar beliefs to mine tend to generate greater confidence in me, when making recommendations (Interview Excerpt – E1).

In my opinion, when a recommendation is made within a community, the chance of completing a purchase or sale is greater (Interview Excerpt – E2).

My consumer decisions are largely guided by trust and beliefs, so when I receive a recommendation from someone who shares similar thoughts to mine, I take it into consideration when making a decision and consuming. I also always try to recommend the work of people I admire, many of whom come from the community (Interview Excerpt – E5).

If you trust someone's recommendation and give feedback, it reinforces this cycle of trust. For example, if I ask for a recommendation for a service, in addition to thanking the person who recommended it, I can provide feedback in the group about the experience I had with that service (Interview Excerpt – E6).

Regarding the most relevant words, it was found that the words "sale" (TF-IDF = 2.4), "desire" (TF-IDF = 2.4), "generate" (TF-IDF = 2.4), "similar" (TF-IDF = 2.4) and "store" (TF-IDF = 2.3). These words suggest strong emphasis on commercial transactions, as well as the needs and desires of community members. The significant presence of terms related to sale and desire indicates the existence of a central concern with commerce and consumer satisfaction within the community.

Furthermore, words such as "generate" and "similar" suggest an interest in creating and promoting products or services meeting participants' expectations. The mention of the word "store" also reinforces the importance of commercial aspect within the community, pointing possible discussions about shopping experiences and stores recommendations, reinforcing once again the relevance of the community as a space not only for the exchange of experiences, but as an environment helping to the development and strengthening of commercial and consumption-related activities (Casaló et al., 2010; Patwa et al., 2024). This profile can be clearly identified in the narratives of E1, E3 and E4.

I realize that the evolution of the community starts from commercial exchange relationships, not only with products from any physical store, but also between



everyone who is part of this community [...] and evolves into a supportive network, whether supporting each other's dreams and goals, or emotional support (Interview Excerpt – E1).

[...] then, the community helps to resolve details or give up on the purchase, or be challenged by a new feature that could spark a desire to consume (Interview Excerpt – E3).

[...] on the path it has been taking, moving from a space for selling products related to well-being to becoming a space for promoting the idea of well-being (Interview Excerpt – E4).

Finally, this research sought to determine how the words would be organized into clusters. Then, the Jaccard Coefficient (Jaccard, 1912) was considered as a statistical method for evaluating similarity between the words present in the participants' narratives. Later, the Silhouette method (Rousseeauw, 1987) was applied to verify the reliability of the clusters. In this context, Figure 4 presents the graphical organization of the clusters through a dendrogram.

Cluster analysis reveals distinct characteristics of the online community under study, highlighting the diversity of topics and interests addressed by participants. Naming clusters based on words provides a deeper understanding of the nature of interactions and the focus of discussions within the community.

As highlighted by Wang et al. (2018) and Chunlin et al. (2019), the identification of thematic clusters is fundamental to understanding the structure and dynamics of online communities, enabling a more precise analysis of communication patterns and relationships between members.

As seen in Figure 4, nine clusters were determined using Jaccard Coefficient, grouped based on a specific subject. Cluster 1 was formed by words: "economy", "identity", "affection", "collective", "belief", "identification" and "person"; and was named <u>Identity and Engagement</u> because these words suggest strong connection with issues related to individual and collective identity, as well as emotional and social involvement between community members. This emphasis on identity and engagement is consistent with Smith and Duggan (2013) findings, who highlight the role of online communities shaping social identities and promoting participant involvement in activities of mutual interest.

Cluster 2, revealing a subject centered around opportunities and interactions within the online community. It was named <u>Opportunity and Interaction</u>, and is



composed of the words: "opportunity", "share", "Brisabela", "event", "power", "time", "meet" and "have". The presence of words such as "opportunity", "share", "event" and "know" suggests an environment favorable to share experiences, information and opportunities among members.

MEET DENTIFICATION BELIEF FEMALE IDENTITY WOMAN COLECTIVE SOCIETY **ECONOMY EXPERIENCE** AFFECTION OPINION RELATIONSHIP PRODUCT REFLECTION SERVICE EXCHANGE EMOTIONAL INTERACTIONS

Figure 4 - Cluster of words present in the participants' narratives

Source: Original research results.

Furthermore, mentioned words such as "Brisabela" refers to an important member of the community and indicates a participant with high involvement and impact on community relations. The inclusion of words like "power" and "time" are also suggesting a concern with the effective use of available opportunities, as well as the management of members' time to participate in relevant events or activities. The presence of terms "event" and "meet" also suggests a concern with socialization and



networking among members, pondering the importance of social interactions in the online context for the growth and enrichment of customers' experiences.

Considering the peculiarities of this cluster, it is clear that for the participants, the online community works as a dynamic and collaborative environment, in which they have access to different opportunities and resources contributing to their personal and professional development. The emphasis on opportunities and interactions is consistent with the idea that online communities act as facilitating platforms for knowledge sharing and networking (Kozinets, 2002).

Cluster 3, called Empowerment and Participation, is composed of the words "empowerment", "political", "society", "thought", "feminine", "woman" and "divergence" to represent discussions directly related to social and political issues. The prominent presence of the word "empowerment," for example, is related to the search for autonomy and empowerment, especially in female context, where the term has been widely discussed and promoted as a tool for gender equality (Duflo, 2012). As the aforementioned author explains, focusing on empowerment strategies is fundamental, as it reflects the need to promote women's voice and active participation in society and politics.

The inclusion of the words "political" and "society" suggests an interest in broader issues that transcend the customer sphere, pointing to an awareness of the role of political and social structures in promoting or inhibiting female empowerment. In this context, Yuval-Davis (2006) argues that political awareness is essential for women's effective participation in decision-making affecting their lives and communities. In this sense, by promoting women's empowerment and political awareness, online communities are very important in expanding public space and promoting gender equality.

By providing an environment for discussion and civic engagement, these communities can empower women to become agents of change in their own realities, contributing to a fairer and inclusive society. Therefore, it is crucial to recognize the potential of online platforms, not only as spaces for social interaction but also as powerful tools promoting women's activism and political participation.

Furthermore, the presence of the words "thought" and "divergence" indicates an environment open to debate ideas and express different points of view within the community. This suggests an appreciation of the diversity of opinions and experiences, essential for enriching dialogue and building a more comprehensive understanding of any addressed issues (Sunstein, 2018).



Cluster 4, in turn, was made up of the words: "opinion", "exchange", "service", "product" and "experience" which outline an environment conducive to interaction and collaboration between members, and for this reason the cluster was named <u>Opinions and Exchange</u>. This cluster highlights a dynamic centered on the exchange of experiences, products and services, permeated by the expression of opinions within the online community.

The presence of the word "opinion," for example, suggests a space where participants are encouraged to share their point of view and evaluation on different topics, products or services. This exchange of opinions can contribute to greater transparency and information within the community, allowing its members to make more reviewed decisions (Kamasalena & Sirisena, 2021). The inclusion of the words: "exchange", "service" and "product" indicates an emphasis on the collaborative economy and the sharing of resources among community members. This aspect suggests a more pragmatic approach, where participants not only share their opinions but collaborate in the supply and search for services and products, creating an environment of reciprocity and collaboration (Hamari et al., 2016).

The presence of the word "experience" highlights the importance of customers' experiences and personal narrative within the community. In this aspect, Nohutlu et al. (2022) point out that participants put value not only the products or services themselves, but underlying them, seeking to share and learn from each other's experiences, in addition to having a co-creative role.

Cluster 5 is formed by the words "contribution" and "community" (<u>Contributions</u> and <u>Cooperation</u>), while cluster 6 is formed by the words "sale" and "referral" (Transactions and Recommendations).

Cluster 5 suggests an environment centered on collaboration and active member participation. The presence of the word "contribution" indicates that participants are encouraged to contribute in some way to the enrichment of the community, whether through content, knowledge or resources. This type of collaboration is essential for the healthy functioning of online communities, allowing its members to feel valued and engaged (Bishop, 2007). Meanwhile, the word "community" highlighted the importance of belonging sense and shared identity among members. A successful online community is one that fosters a culture of cooperation and mutual support, where participants feel part of something bigger than themselves (Blanchard & Markus, 2002), and this sense of community is a powerful motivating factor for contribution and cooperation within the group.



Cluster 6, composed of the words "sale" and "recommendation", referring a more focused dynamic on commercial and transactional aspects within the online community. The presence of the word "sale", for example, suggests that participants may be involved in buying and selling products or services within the group, which may include everything from promoting products of interest to actually carrying out commercial transactions between members. On the other hand, the word "recommendation" highlights the importance of recommendations and reviews within the community. Participants can share their experiences and opinions about products or services, influencing other members' purchasing decisions (Kamasalena & Sirisena, 2021). This type of interaction may be especially relevant in communities dedicated to specific interests, where trust and recommendations credibility are valued (Huang & Benyoucef, 2013).

Cluster 7, nevertheless, is formed by the words: "decision", "interactions", "purchase", "life", "influence" and "consumption"; and was named <u>Decisions and Impact</u> because this cluster suggests a focus on the influence of online interactions regarding purchasing decisions and participants' lifestyle. The presence of the word "decision" indicates that community members may be involved in decision-making processes, especially related to consumption choices. While the words "interactions" and "influence" highlight the importance of social interactions and mutual influence among community members. Within this scenario, discussions and recommendations among participants can shape significantly opinions and purchasing preferences (Kamasalena & Sirisena, 2021).

The word "purchase", also, indicates that consumption activities are the central aspect of interactions within the community. Participants can share information about products, compare prices, and discuss shopping experiences, creating an adequate environment for the exchange of knowledge and opinions about products and brands. Furthermore, the word "life" suggests that purchasing decisions may be linked to broader aspects of participants' lifestyles, including considerations of sustainability, health, well-being, and personal identity, reflecting a more holistic approach to consumption (Dobscha & Ozanne, 2001; Holy et al., 2021).

Last but not least, cluster 8 was formed by the words "emotional", "enter", "member" and "trust" (Emotional Aspects and Connections) and cluster 9, named Reflections and Links, formed by the words: "reflection", "exist" and "relationship".

Cluster 8 suggests a focus on emotional aspects and personal connections within the online community. The presence of the word "emotional" indicates that



participants may be involved in interactions that arouse feelings and emotions about certain topics and members. The word "join" suggests an invitation to participate in the community, this indicates an openness to new members and the creation of social bonds, which might contribute to the development of a welcoming and inclusive environment, where members feel comfortable sharing their experiences and emotions. The word "member" highlights the importance of identity and belonging within the community, that is, participants can identify themselves as members of the community, creating a sense of community and fellowship among them. Finally, the word "trust" highlights the importance of mutual confidence among community members. Trust is essential for establishing meaningful and lasting relationships, contributing to a supportive and collaborative environment (Huang & Benyoucef, 2013).

Therefore, cluster 8 is aligned with the concept of economy of affection, proposed by McAlezander et al. (2002), since it reinforces the importance that consumers give emotional relationships. These results further reinforce Barreda et al. (2020) findings. These authors, studying both individual and collective factors influencing engagement with a brand, concluded that identification with the brand, sharing of information among members and the feeling of belonging are the most important determinant factors for a customer's preference for a brand.

Hence, the convergence between the results of cluster 8 and the conclusions of McAlezander et al. (2002) and Barreda et al. (2020), highlights the importance of emotional relationships and a sense of belonging, not only in online communities but also in contexts of engagement with brands, which suggests that the economy of affection is not restricted to interactions between individuals but also permeates relationships between consumers and brands, where emotional identification and a sense of community is important for building lasting bonds, as well as strengthening consumer loyalty. Thus, understanding and developing these emotional aspects maybe fundamental to both online communities and marketing strategies success, aimed at consumer engagement and loyalty.

Cluster 9, <u>Reflections and Connections</u>, suggests an emphasis on personal reflection and the establishment of connections within any online community. The word "reflection" indicates a space for contemplation and self-knowledge into a community where participants can engage in processes of reflection on their own experiences, thoughts and feelings, contributing to a greater understanding of themselves and others. The word "exist", as well, suggests the seek for meaning and purpose within the community, that is, participants may be seeking a deeper



connection with other members and with the purpose of the community as a whole. Finally, the word "relationship" highlights the importance of interpersonal and social connections within the community.

In this context, participants may be interested in establishing and cultivating meaningful relationships with other members, contributing to a sense of belonging and community (Blanchard & Markus, 2004). It is important to point out that within the economy of affection, these emotional connections are relevant for strengthening social bonds and building mutual trust (Hogan, 2010).

By identifying themselves as community members, participants are not only acknowledging their membership, but at the same time they express desires of belonging to a group where they feel accepted and valued (Ellison et al., 2007; Ostic et al., 2021). This feeling can foster a welcoming and inclusive environment, where members feel comfortable sharing their experiences and emotions in genuine ways, contributing to deeper engagement and promoting a more cohesive community.

Finally, Table 3 presents the validation of each cluster reliability, with the score obtained from the analysis using the Silhouette [ST] method, as well as the total score of the cluster [S] (calculated by the average of the ST scores). It is important to highlight that in the "Silhouette [ST]" column, reliability values of the word's adherence to the cluster are presented, ranging from -1 to +1.

In this sense, it is possible to observe in <u>Identity and Engagement</u> cluster, the words "economy" and "identity" with the highest ST values, 0.923 and 0.917, respectively, while the words "identification" and "person" share the lowest values, 0.320 and 0.117, respectively. However, even though such variations are perceived, no word is considered unreliable, since their values are positive. In addition, the total score of the cluster is positive, totaling 0.613.

Likewise, the <u>Opportunity and Interaction</u> cluster was also considered reliable, since its words have positive scores. It is relevant to point out that the words "opportunity" (ST = 0.731) and "share" (ST = 0.678) have the highest scores, while "know" (ST = 0.424) and "have" (ST = 0.037) have the lowest scores. The average score was 0.519.

In the case of the <u>Empowerment and Participation</u> cluster, there is a flaw in the word distribution, with words with low reliability. The word "divergence", although with a score very close to 0, has a negative coefficient (ST = -0.144), suggesting the need for its possible exclusion from the cluster, which ideally should be composed of the words: "empowerment", "political", "society", "thought", "female" and "woman". It must be



noticed that the total score of the cluster, with the word "divergence", is S = 0.415 and, with its exclusion, it would increase to 0.508, similar to the value observed in the Opportunity and Interaction cluster.

Furthermore, the word "divergence" fits better in the context of exchanging opinions, services, products and experiences than to which it was allocated, since political divergences, for example, can generate numerous problems for the good functioning of the community.

In the <u>Opinions and Exchange</u> cluster, the distribution of words shows reliability in all words, with the words: "opinion" (ST = 0.774) and "exchange" (ST = 0.723) having the highest scores; and "product" (ST = 0.568) and "experience" (ST = 0.357) with the lowest scores. It is noted that in this cluster, the total score is 0.627, being the second highest score among the clusters formed.

Table 3 - Cluster validation by Silhouette method

Cluster	Words	Silhouette [ST]	Score [S]	
Identity and engagement	Economy	0.923		
	Identity	0.917		
	Affection	0.808		
	Press conference	0.644	0.613	
	Belief	0.565		
	Identification	0.320		
	Person	0.117		
	Opportunity	0.731		
	To share	0.678		
	Brisabela	0.670		
O	Event	0.643	0.510	
Opportunity and interaction	Power	0.490	0.519	
	Time	0.482		
	Meet	0.424		
	Have	0.037		
	Empowerment	0.836		
	Political	0.665		
	Society	0.638		
Empowerment and participation	Thought	0.505	0.415	
	Female	0.208		
	Woman	0.193		
	Divergence	-0.144		
	Opinion	0.774		
	Replacement	0.723		
Opinions and Exchange	Service	0.713	0.627	
	Product	0.568		
	Experience	0.357		
6 (1) (1)	Contribution	0.868	0.503	
Contributions and cooperation	Community	0.298	0.583	
Transactions and	Sale	0.618	0.330	
recommendations	Indication	0.021	0.320	
Decisions and impact	Decision	0.869	0.477	
•				



			
	Interactions	0.528	
	Buy	0.500	
	Life	0.436	
	Influence	0.323	
	Consumption	0.204	
	Emotional	0.786	_
Emotional aspects and	Enter	0.793	0.738
connections	Member	0.793	0.756
	Trust	0.581	
	Reflection	0.779	
Reflections and links	Exist	0.486	0.347
	Relationship	-0.226	

Source: Original research results.

The <u>Contributions and Cooperation</u> and <u>Transactions and Recommendations</u> clusters are both formed by only two words and show reliability in their composition. In these clusters, a higher ST score is observed for the word "contribution" (ST = 0.868) in the <u>Contributions and Cooperation</u> cluster, while in the Transactions and Recommendations cluster the word "sale" stands out (ST = 0.618). Regarding the total score, the cluster related to contributions obtained S = 0.583, and the one related to transactions S = 0.320.

The <u>Decisions and Impact</u> cluster presented a reasonable score (S = 0.477) and did not show any inconsistency in the cluster distribution, with the words: "decision" and "interactions" with the highest ST scores, 0.869 and 0.528, respectively. On the other hand, the words "influence" (ST = 0.323) and "consumption" (ST = 0.204) are the ones with the lowest contribution, directly influencing the average coefficient. However, it is worth noting that "consumption", even though possesses the lowest coefficient in the cluster, is not the lowest observed in the cluster distributions performed.

Emotional Aspects and Connections cluster is considered as the highest score (S = 0.738). This result is seen because the words present in this cluster have considerably high ST scores, with the word "trust" having the lowest score (ST = 0.581). It is also relevant to point out that the other words retain scores close to 0.8, demonstrating their excellent reliability for the cluster.

Finally, the <u>Reflections and Links</u> cluster showed inconsistency in its distribution. The words "reflection" and "exist" were considered reliable and presented positive ST, 0.779 and 0.486, respectively. On the other hand, the word "relationship" was considered of low reliability, with a negative ST score (ST = -0.226). In this case, excluding the word "relationship" would be a possibility for the cluster to present 100% reliability, in addition to increasing its average coefficient visualized (S = 0.347).



In order to relocate the word "relationship", it might be suggested to include this word in the <u>Emotional Aspects and Connections</u> cluster, since its intrinsic nature is closely linked to the construction of emotional bonds and personal connections between members of the online community.

Final Considerations

The present research aimed to analyze the role of online communities in shaping purchasing decisions, highlighting the influence of the economy of affection in this process. Based on the results, it is possible to understand, deeply, the role of online communities in consumer behavior, highlighting the importance of social interactions, emotions and collaboration shaping purchase decisions, contributing to the development of knowledge in areas such as digital marketing, consumer behavior and online community studies.

Furthermore, the results obtained here may provide guidance on how companies can leverage online communities as effective engagement and marketing platforms, recognizing the online interactions' influence on consumers' purchasing decisions, enabling the development of more effective marketing and customer relationship strategies; aiming to better meet market needs and preferences. The results also contribute to society highlighting the impact of online interactions, on everyday life and consumer behavior, emphasizing the importance of conscious and responsible participation in digital communities.

It might be relevant to note that the results of this research should not be extrapolated to other contexts, since it was a qualitative study conducted in only one online community. In this context, it is suggested that future research may conduct quantitative studies assessing the size of the impact of relationships, especially emotional ones, on consumer decision-making processes. Another factor that should be considered is the cultural and socioeconomic influences on online community communications and consumer behavior.

References

Adler, R. P., Christopher, A. J. (1999). Virtual communities. In: Haylock, F. C. *Net success*. Adams Media.

Barreda, A. A., Nusair, K., Wang, Y., Okumus, F., & Bilgihan, A. (2020). The impact of social media activities on brand image and emotional attachment: a case in the travel context. *Journal of Hospitality and Tourism Technology, 11*, 109-135. https://doi.org/10.1108/JHTT-02-2018-0016



- Bicalho, L. A., & Medeiros, E.S. (2023). Comunicação humanizada na gestão de comunidades digitais. In: Shigaki, H. B., & Vera, L. A. *Marketing no contexto digital: conceitos, estratégias e aplicações.* Editora Ampla.
- Bishop, J. (2007). Increasing participation in online communities: a framework for human-computer interaction. *Computers in Human Behavior, 23*, 1881-1893. https://doi.org/10.1016/j.chb.2005.11.004
- Blanchard, A. L., & Markus, L. (2002). Sense of virtual community maintaining the experience of belonging. *Proceedings of the 35th Annual Hawaii International Conference on System Sciences*, 3566-3575. http://dx.doi.org/10.1109/HICSS.2002.994449
- Blanchard, A. L., & Markus, M. L. (2004). The experienced "sense" of a virtual community: characteristics and processes. *ACM SIGMIS Database*, *35*, 65-79. https://doi.org/10.1145/968464.968470
- Casaló, L. V., Flavián, C., & Guinalíu, M. (2010). Antecedents and consequences of consumer participation in on-line communities: the case of the travel sector. *International Journal of Electronic Commerce, 15,* 137-167. https://doi.org/10.2753/JEC1086-4415150205
- Chunlin, L., Jingpan, B., Zhao, W., & Yang, X. (2019). Community detection using hierarchical clustering based on edge-weighted similarity in cloud environment. *Information Processing & Management, 56*, 91-109. https://doi.org/10.1016/j.ipm.2018.10.004
- Dobscha, S., & Ozanne, J. L. (2001). An ecofeminist analysis of environmentally sensitive women using qualitative methodology: the emancipatory potential of an ecological life. *Journal of Public Policy and Marketing, 20,* 201-214. https://doi.org/10.1509/jppm.20.2.201
- Duflo, E. (2012). Women empowerment and economic development. *Journal of Economic Literature, 50*, 1051-1079. http://dx.doi.org/10.1257/jel.50.4.1051
- Ellison, N. B., Steinfield, C., & Lampe, C. (2007). The benefits of Facebook "friends": social capital and college students' use of online social network sites. *Journal of Computer-Mediated Communication*, *12*, 1143-1168. https://doi.org/10.1111/j.1083-6101.2007.00367.x
- Faraj, S., & Johnson, S. L. (2011). Network exchange patterns in online communities. *Organization Science, 22*, 1464-1480, 2011. http://www.jstor.org/stable/41303137
- Faustino-Dias, A. F. (2019). Obesogenicidade no Brasil: uma análise das políticas públicas segundo o Nourishing Framework. Dissertação de Mestrado em Administração. Escola de Administração e Negócios, Universidade Federal de Mato Grosso do Sul, Campo Grande, MS, Brasil, 2019. https://sucupira.capes.gov.br/sucupira/public/consultas/coleta/trabalhoConclus ao/viewTrabalhoConclusao.jsf?popup=true&id_trabalho=7669418
- Faustino-Dias, A. F., Spanhol-Finocchio, C. P., Cunha, A. L., Cunha, L. M., & Cheung, T.L. (2020). *Análise da produção científica relacionada a políticas públicas, consumo de alimentos e obesidade através da mineração de texto*. In: XXIII Seminários em Administração: SEMEAD. 2020, online. Anais ... 2020. https://login.semead.com.br/23semead/anais/arquivos/2307.pdf?
- Habibi, M. R., Laroche, M., & Richard, M. O. (2014). The roles of brand community and community engagement in building brand trust on social media. *Computers in Human Behavior, 37*, 152-161. https://doi.org/10.1016/j.chb.2014.04.016
- Hagel, J. (1999). Net gain: expanding markets through virtual communities. *Journal of Interactive Marketing, 13*, 55-65, 1999. https://doi.org/10.1002/(SICI)1520-6653(199924)13:1%3C55::AID-DIR5%3E3.0.CO;2-C
- Hamari, J., Sjoklint, M., & Ukkonen, A. (2016). The sharing economy: why people participate in collaborative consumption. *Journal of the Association for*



- *Information Science and Technology, 67*, 2047-2059. https://doi.org/10.1002/asi.23552
- Hogan, B. (2010). The presentation of self in the age of social media: distinguishing performances and exhibitions online. *Bulletin of Science, Technology & Society, 30,* 377-386. https://doi.org/10.1177/0270467610385893
- Holy, M., Zeman, M. G., & Zeman, Z. (2021). From ecofeminist theories to ecofeminist practice: women, sustainability and ethical consumerism. p. 123-140, 2021. In: Topic, M., & Lodorfos, G. (Ed.) *The Sustainabily Debate: policies, gender and the media.* Emerald Publishing Limited, Leeds. https://doi.org/10.1108/S2043-905920210000015007
- Huang, Z., & Benyoucef, M. (2013). From e-commerce to social commerce: a close look at design features. *Electronic Commerce Research and Applications, 12*, 246-259. https://doi.org/10.1016/j.elerap.2012.12.003
- Jaccard, P. (1912). The distribution of the flora in the alpine zone. *The New Phytologist,* 11, 37-50. https://www.jstor.org/stable/2427226
- Kamalasena, B. D., & Sirisena, A. B. (2021). The impact of online communities and e word of mouth on purchase intention of generation Y: the mediating role of brand trust. *Sri Lanka Journal of Marketing, 7*, 92-116. https://doi.org/10.4038/sljmuok.v7i1.58
- Kaur, H., Paruthi, M., Islam, J., & Hollebeek, L. D. (2020). The role of brand community identification and reward on consumer brand engagement and brand engagement and brand loyalty in virtual brand communities. *Telematics and Informatics*, 46, 101321, 2020. https://doi.org/10.1016/j.tele.2019.101321
- Kozinets, R. V. (2002). The field behind the screen: using netnography for marketing research in online communities. *Journal of Marketing Research, 39*, 61-72, 2002. http://dx.doi.org/10.1509/jmkr.39.1.61.18935
- Lee, C. T., & Hsieh, S. H. (2021). Can social media-based brand communities build brand relationships? Examining the effect of community engagement on brand love. Behaviour & Information Technology, 41, 1270-1285, 2021. https://doi.org/10.1080/0144929X.2021.1872704
- Malinen, S. (2015). Understanding user participation in online communities: a systematic literature review of empirical studies. *Computers in Human Behavior,* 46, 2280-238. https://doi.org/10.1016/j.chb.2015.01.004
- McAlexandrer, J.
- M., Schouten, J. W., & Koening, H. F. (2002). Building brand community. *Journal of marketing*, *66*, 38-54. https://doi.org/10.1509/jmkg.66.1.38.18451
- Nohutlu, Z. D., Englis, B. G., Groen, A. J., & Constantinides, E. (2022). Customer cocreation experience in online communities; antecedents and outcomes. *European Journal of Innovation Management, 25*, 630-659. https://doi.org/10.1108/EJIM-08-2020-0313
- Ostic, D., Qalati, S. A., Barbosa, B., Shan, S. M. M., Vela, E. G., Herzallah, A. M., & Liu, F. (2021). Effects of social media use on psychological well-being: a mediate model. *Frontiers in Psychology, 12*, 678766. https://doi.org/10.3389/fpsyg.2021.678766
- Patwa, N., Gupta, M., & Mittal, A. (2024). Modeling the influence of online communities and social commerce. *Global Knowledge, Memory and Communication*. https://doi.org/10.1108/GKMC-01-2023-0014
- Provalis. (2020). *QDA Miner 6: User's Guide*. https://provalisresearch.com/Documents/QDAMiner6.pdf
- Rheingold, H. (2000). *The virtual community: homesteading on the electronic frontier.*MIT Press.



- Rousseeauw, J. (1987). Silhouettes: a graphical aid to the interpretation and validation of cluster analysis. *Journal of Computational and Applied Mathematics*, *20*, 53-65, 1987. https://doi.org/10.1016/0377-0427(87)90125-7
- Smith, A., & Duggan, M. (2013). *Online dating & Relationships*. Pew Research Center. Sunstein, C. R. (2018). *#Republic: divided democracy in the age of social media*. Pinceton University Press.
- Thibault, J. W., & Kelley, H. H. (1959). *The social psychology of groups*. John Wiley & Sons.
- Tönnies, F. (2002). Community and Society. Dover Publications.
- Wang, T., Yin, L., & Wang, X. (2018). A community detection method based on local similarity and degree clustering information. *Physica A: statistical mechanics and its applications, 490,* 1344-1354.
 - https://doi.org/10.1016/j.physa.2017.08.090
- Yuval-Davis, N. (2006). Intersectionality and feminist politics. *European Journal of Women's Studies, 13*, 193-209. https://doi.org/10.1177/1350506806065752



RESUMO

A forma em que as pessoas consomem foi alterada pela era digital e o uso constante de redes sociais, levando muitas vezes à criação de comunidades online. A presente pesquisa objetivou analisar o papel das comunidades online na formação das decisões de compra. Para tal, foram conduzidas seis (6) entrevistas em profundidade com membros de uma comunidade online. As análises foram realizadas no software QDA Miner. Os resultados destacam a importância das interações sociais e emocionais, a colaboração e troca de recursos entre os membros, a influência das interações online nas decisões de compra e estilo de vida dos participantes, além da ênfase em oportunidades compartilhamento interação е de conhecimento na comunidade.

PALAVRAS-CHAVE: Comportamento do consumidor; Economia do afeto; Experiência; Interações sociais; Mineração de texto.

RESUMEN

La forma en que las personas consumen ha sido alterada por la era digital y el uso constante de las redes sociales, lo que a menudo lleva a la creación de comunidades en línea. Esta investigación tuvo como objetivo analizar el papel de las comunidades en línea en la formación de las decisiones de compra. Para ello, se realizaron seis (6) entrevistas en profundidad con miembros de una comunidad en línea. Los análisis se realizaron con el software QDA Miner. Los resultados destacan la importancia de las interacciones sociales y emocionales, la colaboración e intercambio de recursos entre los miembros, la influencia de las interacciones en línea en las decisiones de compra y el estilo de vida de los participantes, además del énfasis en las oportunidades de interacción y el intercambio de conocimientos dentro de la comunidad.

PALABRAS CLAVE: Comportamiento del consumidor; Economía Afectiva; Experiencia; Interacciones sociales; Minería de texto.