Online brand content sharing on social networks – an experiment comparing the role of emotions in advertisement and news

Track: Consumer behaviour

Keywords: Arousal, emotional valence, sharing

Introduction

Content sharing is a way to exchange information, as is the case with spoken language. This can also be referred to as word-of-mouth (WOM) communication, which is a term used in marketing literature to describe interpersonal communication about a specific subject, product, person, and/or idea (Berger, 2014). More specifically, a person can comment on, or even recommend something to somebody, in several ways. This usually entails the relay of messages created by companies among consumers, or even the mention of a supplier by one consumer to another. This may lead to the latter being driven to purchase products or services that the former considers to be of high quality, or the latter becoming convinced not to purchase something that the former considers to be poor quality. WOM communication is an important way in which people (i) seek information before making a purchase decision; (ii) are influenced before the purchase decision, when evaluating alternatives; or (iii) after purchase, reduce cognitive dissonance or externalize their satisfaction. Research has indicated that WOM is the most trustworthy source of information for consumers, especially when compared to corporate communication, which includes company websites, online advertisements, or traditional media. For companies, this is relevant because if it is adequately encouraged and managed, it can become part of their communication efforts with their audience.

All WOM communication involves the sharing of information. This mechanism has existed since the advent of spoken language, and possibly even prior to it. In ancient times, people shared information about which animals were easy to hunt or where to get food (Berger, 2014). Belk (2010) conceptualized sharing in a broader manner, to encompass the allocation of resources in a non-reciprocal way, in which payment is irrelevant, and there is an expression of love and affection from those who share to those receiving the message, which suggests an altruistic bias. This differs from the direct exchange of goods or the provision of gifts, because, in these acts, reciprocity is expected (Belk, 2010). On the other hand, some authors have highlighted a selfish bias, and shown that sharing by an individual – whether this relates to goods or ideas – generates (i) indirect economic gains, such as broadcasting to the world the sharer's personality or making them appear in a more positive light to others (Berger, 2014; Hennig-Thurau, Gwinner, Walsh & Gremler, 2004; Sundaram, Kaushik & Webster, 1998); (ii) the creation of weak ties and maintenance of strong ones (Goldenberg, Libai, & Muller, 2001; Granovetter 1973); and (iii) the formation of connections, reliable relationships, and social capital (Burt, 2004; Putnam, 2000).

The sharing of online content has the same characteristics as WOM communication, as those who share with the people around them generate a chain reaction that can extend to an entire population (Belk, 2010, Berger,

2014). Social media facilitates information sharing with large groups, but most of this sharing is done offline. Online sharing consists of providing content in a digital format to a group of people. Technologies such as online social networks enable organization of contacts and make access to this information easier, increase audience reach, and make communication faster, because content shared online reaches all contacts from the person or group relaying it. However, information shared offline will reach a smaller set of people at slower speed, while the results will differ according to the media used (Berger & Iyengar, 2013). Interest on this subject from the marketing field has focused on understanding the importance of this kind of sharing to information processing and consumer decision-making, and how to encourage it when the information is positive, or eliminate it if the information is negative.

Many are the benefits of sharing information. For example: (i) sharing can be cathartic and help people deal with their emotions (Berger & Milkman, 2012); (ii) by talking with others and sharing, people can obtain a deeper understanding of how they feel; (iii) sharing can help people to eliminate or reduce feelings of dissonance; (iv) sharing an emotional narrative with others increases the chance that people will feel they are part of the narrative and the person or people in it, thereby facilitating empathy and social connection (Berger, 2014). However, it remains unclear what leads people to share content that is emotionally charged. People share and pass along information to one another to, for example, reduce anxiety (Sundaram et al., 1998) or to deal with negative feelings (Hennig-Thurau et al., 2004). Thus, sharing has an intrinsic relationship with the emotions felt by the sharer. Emotions have been investigated in marketing (Bagozzi et al., 1999) in terms of their impact on customer satisfaction with the use of goods and services (Ladhari, 2007; White, 2010) and consumers' intention to share; the formation of preferences, biases and compulsions in the buying process (Siemens & Kopp, 2011); and their influence on social interactions in general, since the emotion conveyed by one person can lead to a desired reaction in another (Andrade & Ho, 2009).

The main goal of this paper is to evaluate the emotional determinants of online content sharing about brands by consumers. Secondary objectives include assessing the role of: (i) the valence of information in sharing; (ii) the emotional arousal generated in the consumer by the content when sharing it; and (iii) the utility perceived of the share by the consumer.

This paper is structured as follows: this introduction has presented the goals of the research. The next section outlines the theoretical framework, and this is followed by a description of the method used. The results are then discussed and contributions presented, followed by limitations and suggestions for future studies.

Theoretical background

Virtual social networks are environments in which online sharing occurs. The content shared may comprise personal perceptions, opinions, photos of the sharer and the places where they have been, or videos and promotional material posted by businesses (Porter & Golan, 2006). Content that is shared by many people is referred to as "viral," in reference to the way in which a virus disseminates through the environment until it reaches an entire population. This "viralization" is therefore the result of sharing.

Viralization involves (i) contagion, or rapid dissemination of the content to a significant number of people, which is usually associated with a relay between common users or major hubs, ranging from high-traffic blogs to traditional media (TV, magazines, and newspapers); and (ii) a high impact, or high total number of people and views, which is possible because the availability of content (videos, articles, text, images, etc.) on the Internet allows it to be seen and reviewed for a long time (Berger, 2013). The dissemination tends to decrease over time, although some content may continue to proliferate.

Viralization is therefore a phenomenon that is viewed with great interest by those who wish to relay messages. This is because it reduces the marginal cost of relaying a message, as (i) there are many "issuers" of the information (any user in a network can potentially re-share content that is of interest to the company), and/or (ii) it increases the relevance of the company in online searches, making the firm more discoverable on the Web. Possible consequences of this include a reduction in customer-acquisition cost, increased sales conversions (whether online or not), and lead generation. Authors have considered viral marketing as a business practice that aims to stimulate this relay (Subramani & Rajagopalan, 2003).

There are several examples of content that has gone viral on the internet through rapid dissemination, as well as the impact of this dissemination. However, it is rare for two indicators – contagion and impact - occur at the same time, as the speed of dissemination tends to decrease over time. The online sharing of such content is related to offline events, such as friends' comments, videos' appearance on other media outlets, and so on, which may extend the viralization.

Viral content usually comes in the form of videos, especially humor, music, or opinion pieces, for example user empathy with the content; shame for users who have done socially considered social unacceptable; focus on controversial issues; and use of obscene, ironic, or poor-taste humor, or content that was offensive to a certain society group. Videos with a very high number of views also receive many comments, which are usually primarily negative. Tucker (2015) pointed out the existence of a negative relationship between viral content and the persuasion power of online advertisements, especially in videos containing humor or visual appeal. More specifically, by analyzing a database of 400 advertisements in the form of online videos, and measuring persuasion through questionnaires, Tucker (2015) found that the more overtly persuasive the video was, the fewer views it had. On the other hand, more persuasive and exciting videos, which also generated a large number of comments, were similarly highly shared.

This indicates a relationship between viralization and the emotions that the content relays. Content that goes viral has six common characteristics (Berger, 2013): (i) social currency – i.e. the issuer believes that the content can make them seem like a better person to others, which will have future implications; (ii) triggers, or events that make the subject more relevant or visible, such as a new movie that, despite not being extensively talked about, attracts an audience (Godes & Mayzlin, 2004); (iii) emotions, which touch the user make them want to share the item, with higher likelihood to share positive content and content that generates arousal and instills emotions such as surprise, disgust, or anxiety; (iv) practical utility – i.e. people tend to share content that they believe will boost their standing with their connections, such as news, offers, or discounts; (v) public visibility – i.e. content that is more visible tends to be shared more, as people tend to mimic the behavior of others; and (vi) stories, since people share information that can be positioned within larger narratives.

This corroborates the results of other studies, particularly on the relationship between viralization and emotions. For example, Dobele, Lindgreen, Beverland, Vanhamme, and Wijk (2007) indicated that content that generates surprise, combined with emotions such as disgust, anger, fear, sadness, or joy, tends to go viral more often, although age, sex, and culture may moderate this behavior.

Therefore, Berger (2014) and Dobele et al. (2007) specified that the emotions generated by content can lead individuals to share it: more intense emotions – that is, those that generate more arousal – increase the chances that individuals will spread the word. Miniero, Rurale & Addis (2014) corroborate this on hedonic, arts

and cultural experiences. Baumeister, Blatslavsky, Finkenauer, and Vohls (2001) found that people feel negative emotions more intensely than positive ones. Thus, two hypotheses are formulated here:

H1: Content with positive valence generates a higher likelihood of sharing compared to that with negative valence.

H2: Content that generates high arousal has a higher likelihood of being shared compared to that generating low arousal.

Berger (2013) additionally found that a perception that content has practical utility can also lead individuals to share it. Warnings, alerts, or content containing unfavorable reviews should be seen as more useful than greetings or compliments, given that negative content is rarer and can lead individuals to be identified as having deep knowledge of a subject. Sen and Lerman (2007) examined this issue by analyzing online comments on hedonic and utilitarian products. For commercial products, the valence of the product review is relevant to the understanding of what is shared: negative reviews are more useful, more trusted, and considered more accurate. In hedonic products, however, this is not the case, since negative reviews are seen as less useful. Ho and Dempsey (2010) also showed that utility is relevant to determine which content is more likely to be shared, and that higher-utility content is more sharable by individualistic people or by those who want to help others, since both groups share to seek inclusion, affection, and control.

This means that sharing content with utility value can demonstrate altruism and improve the image of those who share it. It can also help others to reduce risk and search time for information, and support their decisions (Hennig-Thurau et al., 2004; Sundaram et al., 1998). One can even say that one of the functions of communication is to obtain information about others, which can be useful in society (Dunbar et al., 1997).

In other words, useful content can help others, which leads to the sharing of content containing this feature. Examples of this may include content that aims to prevent diseases by reducing the consumption of certain products; notices of store promotions; or communications regarding a company's poor customer service. However, the human tendency to pursue pleasure also leads to the sharing of other types of content, such as humor, music, and positive messages. The moment of pleasure in this context can be as useful to others as a news story related to health, or one that generates economic benefits (Guerin & Miyazaki, 2006). It is particularly relevant on video sharing on social networks, when people share what causes pleasure (Yang & Wang, 2015). And that pleasure can generate content sharing and recommendations on arts experiences (Miniero, Rurale & Addis, 2014).

Sibona (2014), for example, found that people who are most excluded from friendly connections in online social networks are those who post content considered as being of little or no importance to those who exclude them. Therefore, utility appears to be subjective, and its lack can lead to extreme actions, such as deleting a supposed friend, interrupting that friendship, even for a while.

What characterizes useful content? Authors have found that the medium in which a conversation occurs can modify the interest in a subject, and hence its usefulness. Berger and Iyengar (2013) studied the differences between online and offline conversations regarding different subjects. Online, the ease of deciding what words to use, as well as what to write about, makes the user focus on issues they consider most useful and interesting when they are online. On the other hand, a conversation conducted face to face does not have this feature: the partners of the conversation face greater difficulty in dodging issues that do not interest them or are less useful to them.

Perceptions of what is useful in advertising may vary depending on the indicators used, the message content itself, and the content's interpretation, which is impacted by the cultural background of the receiver (Dobele et al., 2007; Grafton-Small & Linstead, 1989). Huang et al. (2012), for example, found that a video perceived as being high quality, and therefore useful, facilitates its relay. Therefore, better content, from the viewpoint of the beholder, results in greater intentions to share.

The usefulness of content may depend on its valence. Negative-valence content generates greater emotional impact, is processed more slowly (Ahluwalia, 2002; Baumeister et al., 2001; Wang et al., 2009), and can express care for the recipient, and the content is then considered as more trustworthy and accurate (Sen & Lerman, 2007). Positive-valence content is more common (De Angelis et al., 2012; East et al., 2007, East et al., 2008) and therefore may be less useful. Chen & Lurie (2013) found empirically that negative evaluations on restaurant review sites have higher perceived value for those who read them than positive reviews, as positive assessments tend to generate suspicion that the views of the person writing the evaluation are unreliable. Despite this fact, Malaviya & Brendl (2014) indicated that there are distinct mental models that can change the type of content seen as most useful. The generates the following hypothesis:

H3: Negative-valence content has greater utility than positive-valence content.

Method

This chapter describes the methodological procedures used in this study, and presents and analyzes the results.

Experimental design

The study involves a factorial 2 (ads vs. news) x 2 (positive vs. negative valence) design. The experiment used an between-subjects approach, with respondents randomly allocated by means of a draw via software to one of four scenarios with different simulated contents, as shown in table 1.

		Content	
		Ads	News
Valence	Positive	35	39
	Negative	44	39

Table 1: Experimental design

Data collection

Data was collected from October 1 to November 22, 2013, using the convenience sampling method. The sample comprised undergraduate students in São Paulo, Brazil.

A total of 718 e-mails were sent to these students; this contained the e-mail address of the researcher, and was created in the Qualtrics software environment. It resulted in a total of 157 responses; i.e. a 21.8% response rate.

Dependent variables

(i) Likelihood of sharing. Likelihood is defined as a person's inclination or tendency to complete an action or behavior (Delarocas & Narayan, 2006; Heath, 1996). The concept is commonly used in economic studies; for example, in relation to the marginal likelihood to consume, to fall into debt, or to take risks. Likelihood differs from intention, which is a purpose or expectation, and is something the individual means and aims to do in the future, consciously or unconsciously; for example, the intention to purchase a product or to stop smoking (Soderlund & Ohman, 2003). It also differs from attitude, which is a predisposition toward something or a stance based on beliefs, opinions, and feelings towards something, such as a product or a person. Attitudes form intentions (Fishbein & Ajzen, 1975), so it can be said that likelihood involves less awareness and deliberateness than intention.

The likelihood to share therefore involves a person's willingness or tendency to pass on information. Nowadays, these could be done in two ways: presencially or using some electronical device, for instance, by eletronic social networks. In this study, the likelihood to share is a construct with two dimensions: likelihood to share online and likelihood to share offline.

(a) Likelihood to share online: Kulkarni et al. (2013) included sharing in the online environment in a list of actions – along with votes, comments, and likes – that characterize user engagement with blogs. The list represents a set of possible actions in the online environments that result in sharing insights with other users, and enables the insights to be easily interpreted.

Thus, based on Belk's (2010) definition, it can be said that all actions that define user engagement have the purpose of sharing feelings, opinions, or actions taken with peers online. Therefore, this study uses Kulkarni et al.'s (2013) ratio of shares as a scale (adapted to the conditional tense, and with one item ("I would vote for this content") deleted, as it is not applicable in the context of this study).

The items are described in Table 2.

Action	Item	
Shares	I would send (or share) this content to (with) my friends.	
	` , , , ,	
Likes	I would "like" this content on a social network.	
Comments	I would comment on this content on a social network.	
Votes	I would vote on on this content on a social network.	

Table 2: Scale items used for likelihood of sharing content online

Source: Adapted from Kulkarni et al. (2013)

(b) Likelihood of sharing offline. In addition to sharing online through the actions mentioned above, consumers can go further, in terms of bringing the content seen in the virtual environment into their daily lives by commenting on it with friends or acquaintances. Actions such as these have been described and measured using a scale by Babin et al. (2005), called the Scale of Intention to Recommend. In this study, this scale has again been adapted in order to focus on the content itself and the company portrayed. The purpose of this scale is to assess the physical actions that the respondent could undertake based on the virtual environment.

Original item	Adapted item
When asked, I would speak	I would speak about this content with my friends.
, 1	I would speak favorably about this content.
favorably about restaurant XYZ.	I would speak favorably about this company.
I would recommend restaurant	I would recommend this company if someone asked my opinion.
	I would recommend this content if someone asked my opinion.
XYZ to someone who asked my	
opinion.	
I would encourage my friends	I would encourage my friends and relatives to access this
and relatives to visit restaurant	content.
	I would encourage my friends and relatives to consume products
XYZ.	- ·
	made by this company.

Table 3: Scale items used for likelihood of sharing content offline

Source: Adapted from Babin et al. (2005)

(iii) Utility. The usefulness of the content perceived by the person viewing it can indicate whether that content will be shared or not. The person's interest in the content, and the content's utility in terms of helping the person or others, may determine whether the content will be shared: content that is more useful or more closely linked to the interests the person reading it will be shared more. This is due to both the usefulness of the content itself and the sense of reciprocity that permeates interpersonal relationships (Berger, 2014).

Berger and Milkman (2012) measured utility using two aspects – practical utility and interest (see Table 4). In this study, a gift item was introduced during the pre-trial phase to test the theory that (Ahn & Bailenson, 2011; Berger, 2013; Heath et al., 2001) what is useful for one person can differ from what the person considers to be useful to others. This variable was coded as UTILITY.

Original item (translated into	Adapted items
English)	
Practical utility	I consider this content useful to me.

	I consider this content useful to other people.
Interest	I am interested in this content.

Table 4: Scale of utility

Source: Adapted from Berger and Milkman (2012)

Independent variables

The independent variables used in this experiment are:

- i) Emotional valence, manipulated as positive or negative;
- ii) Format, manipulated as advertisements or news.

Design and pre-testing

The experiment used an initial database of 272 posts identified as comprising content that could meet the experiment's goal. Thus, these posts consisted of a set of advertising campaigns on social networks, with different valences, which had the purpose of stimulating or inhibiting the consumption of different products or services.

Two different content and advertisement types (positive and negative) were identified, and the material was given to a sample set of 15 students. Undergraduate students only commented on the content in the form of a group discussion moderated by the author. From this discussion, the most appropriate advertising model and content type was assigned to each post.

Manipulation

Manipulation was needed due to the choice to use positive and negative content in different formats: advertisements and news. The same brand was chosen: Coca-Cola. The choice was made based on both the availability of the pre-tested material (news and advertisements), as well as brand recognition. While the news content had been created by newspapers and reproduced on social networks, the advertisements were developed by users of social networks: the positive by a fan, which was later posted to the official account of the brand on a social network, and the negative by an activist opposed to the brand, and relayed on the network.

All content was adapted in order to make it suitable for the experiment, and tested on marketing experts. The adaptation involved the scaling of text and processing of image quality. The content was made in portuguese. Table 5 presents the manipulation of independent variables. These four scenarios are: I) a positive ad: based on an ad made by a Coca-cola supporter, on Instagram social network, and retransmitted by the Coca-cola account – a little dog asks, inside a Coca-Cola can: "Did you like my new house?. Coca-Cola says, after:"Lunch tastes better when it has Coca Cola. Open happiness"; II) a negative ad: based on an ad made by an activist against junk food, and published in social networks, a Coca-Cola Zero can appears with these written on it: "The more you avoid

soda, the better", and the account completes: "Do not drink Coca-Cola. Coca-Cola is equivalent to 12 teaspoons of sugar. Obesity, diabetes, stroke, arthritis, and even cancer may be caused by it."; III) a positive report on an online newspaper telling about a social action sponsored by Coca-Cola helping youngster living in poor regions to get professional training to start working on retail, and IV) a negative report in an online newspaper tells about a mouse found inside a Coca-Cola bottle.

Analysis of results

Respondent profile. The 157 replies came from undergraduate students of a business administration course. In terms of age, 67% were between 19 and 25, and the average age was 24 years. Regarding gender, 70% of the sample was female. In terms of time spent on online social networks, 69% spent more than an hour a day online (56% of men, 74% women), and 32% said they accessed the internet through a mobile phone. Most who reported rarely using online social networks were male (approximately 21% of men).

Verification tests. The internal consistency of the scales used in this experiment was verified using Cronbach's alpha, as shown in Table 13. All scales had values higher than 0.8. **Table 13**: Internal consistency of scale measurement

ValenceAdvertisement	
	News
Gostou da minha casa nova?	

Lunch tastes better when it has Coca Cola. Open happiness. Text in photo: "Did you like my ney home?"

Positive



Negative

Do not drink Coca-Cola. Coca-Cola is equivalent to 12 teaspoons of sugar. Obesity, diabetes, stroke, arthritis, and even cancer may be caused by it.

Text in can: AS much as you avoid drink Coke, the better.



"Collective Coca-Cola" program offers 480 free places in Manaus portal@d24am.com

The retail course is geared towards youths aged 18 to 25, and

will be taught in four non-governmental organizations (NGOs) in the city. São Paulo - The "Collective Coca-Cola" program is receiving applications for its free course in the retail area, aimed at young people aged 18 to 25. Classes will be offered in four NGOs in the city, with two districts in the west, one on the east side, and another in the north. Altogether, there are 480 places available, 120 for each institution. To register, you must be 18 to 25 years of age, be a resident of the community or neighborhoods, and submit two 3x4 photos, proof that you are in college or have graduated from high school, proof of address, including zip code, and copies of your personal identification. The head of the program in Manaus, Jardilina Vasconcelos, said the classes includes studies on merchandising, sales promotion, customer service, employment, guidance on how to prepare a resume, how to set up a professional email, relationships and customer service, and labor market concepts. The course lasts two months, with a workload of 32 hours (two classes per week and two hours per class).

Mouse found in Coca-Cola bottle

request. Coca-Cola declined to comment.

A case involving the most famous soft drink in the world has called attention on social networks. A report by the NEWS TODAY detailed a man who allegedly drank coke with a dead mouse inside; the mouse's body had been badly damaged due to the liquid. In the report, watchmaker

Wilson Resende said that 13 years ago he felt intoxicated from drinking Coca-Cola. According to him, the head of a mouse was contained within the soda. Expert reports indicated that the batch had not been violated and that the lid was intact. According to NEWS TODAY, the public prosecutor tried to close the factory the batch had come from, but the justice department denied the

 Table 5: Manipulations performed

Manipulations check

minha

The manipulations check was performed using t-test average differences. With regard to the manipulation, its valence was verified from the answers given to the statement: "This post stimulated positive emotions in me." The positive content showed an average of around 3.53 (standard deviation of 1.32), while the average for the negative was 2.17 (standard deviation of 1.39), which leads to rejection of the hypothesis of equal averages (t = -6.148, p = 0.000).

Analysis of Variance. The first analysis was performed on likelihood to share. The F-test of the average differences showed no statistical significance between the dependent variable SHAREonline and the independent variables valence and format (p > 0.05). In relation to SHAREoffline, the F-test was not statistically significant relative to the isolated variables, but there was a significant interaction (p = 0.005), indicating that the format plays a moderating role in the relationship between valence and likelihood of sharing: when the valence is negative, advertising becomes more likely to be shared offline than news; where the valence is positive, the opposite occurs.

SHAREoffline presented a higher average for content in relation to advertising when both are positive (3.366 against 2.682). When they are negative, the relationship is reversed: advertising has a higher average than content (3.156 vs. 2.857). This means that format moderates the relationship between likelihood to share offline and valence. Figure 1 summarizes these findings.

Share Offline

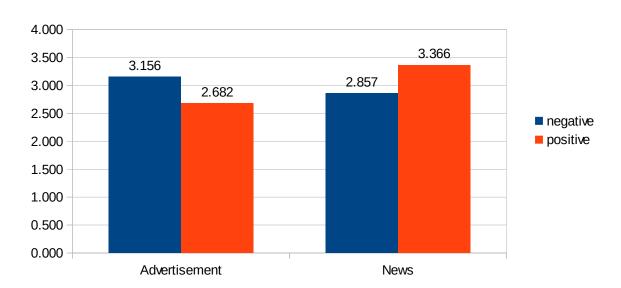


Figure 1: Effect of valence in SHAREoffline, moderated by content format.

In relation to arousal, there was a statistical significance in the relationship between format and arousal and between valence and arousal, but there was no interaction among the independent variables (p > 0.05). Content with negative valence generated more arousal than positive-valence content (overall average 3.51 versus 2.90, p = 0.000), and news generated more arousal than advertisements (overall average 3.46 versus 3.00, p = 0.004).

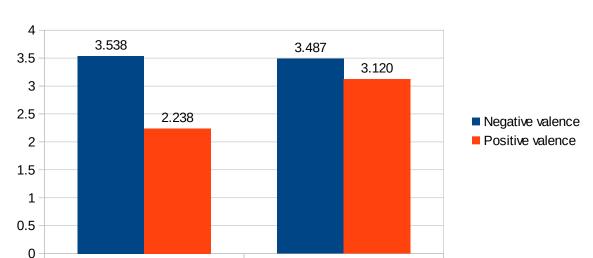
The analysis of arousal also indicated that among the content with the same valence, that evaluated as high arousal (equal to or greater than 3) had a higher likelihood of being shared than that with low arousal. The difference was slightly lower for content with negative valence with regards to sharing offline: the likelihood was lower when there was more arousal and higher when the arousal was lower.

Regarding utility, all tests were statistically significant, indicating a relationship between valence (F = 22.342, p = 0.000) and format (F = 5.548, p = 0.02) with utility, and even showed an interaction between the dependent variables (F = 6.985, p = 0.009): when the valence was positive, the utility of the news was greater than that of the advertisements (3.12 to 2.24); however, when the valence was negative, the advertising utility was greater than that of the news (3.54 versus 3.49). Figure 2 shows this interaction. The findings show that the format moderates the relationship between valence and utility: when the valence is negative, advertisements have greater utility, and when the valence is positive, news reports have greater utility.

The content considered most useful (averaging in the utility scale equal to or above 3) had a higher average likelihood of being shared online (3.86, for high utility and 2.25 for low; p = 0.000) and offline (3.46 versus 2.24; p = 0.000). The utility was correlated with the other dependent variables in terms of likelihood of sharing online (Pearson correlation = 0.674, p = 0.000) and the likelihood of sharing offline (Pearson correlation = 0.646, p = 0.000) and arousal (Pearson correlation = 0.678, p = 0.000).

Figure 2: Effect of valence in utility, moderated by content format.

Advertisement



News

Perceived utility

General Discussion

The results show that: (i) positive-valence content leads to greater likelihood to share than negative content does; (ii) negative-valence content generates greater arousal compared to positive-valence content; (iii) negative-valence content tends to be considered more useful if it generates high arousal.

Advertisements generated less arousal than news, leading to less utility in either valence of the advertisements. Furthermore, the utility difference between news and advertisements was much higher when the valence was positive. This experiment showed that with respect to format: (i) news tends to be more useful and generate more arousal compared to advertisements; (ii) negative news and positive advertisements tend to generate less likelihood of being share than positive content and negative advertisements do; and (iii) demarketing actions (Gundlach, Bradford & Wilkie, 2010), which discourage consumption via advertisements, are considered more useful than common advertisements, generate more arousal, and are more sharable compared to ordinary content or positive advertisements.

Final considerations and suggestions for future studies

This paper supports the idea that in terms of sharing content, items that are positive and useful are most commonly chosen by the consumer. Furthermore, the study of arousal and its relationship with user predisposition to engage in exchanges of information is in line with findings from previous studies (Dobele et al., 2007, Berger & Milkman, 2012) regarding sharing. In addition, the utility should have a mediating effect on the relationship between arousal, emotional valence, and likelihood

to share, because content with high utility is more likely to be shared. This paper's principal aim was to evaluate the emotional determinants of online content sharing about brands by consumers, assessing the role of: (i) the valence of information in sharing; (ii) the emotional arousal generated in the consumer by the content when sharing it; and (iii) the perceived utility of the share by the consumer. It was possible to identify that exciting content will be perceived as more useful if it is negative, while less exciting content will be seen as more useful if it is positive, and all kind of content will be shared, if considered as useful.

The findings can direct the creation of communication campaigns, whether in public relations – as considered in this study – or in other communication tools. For example, taking a serious approach when communicating positive events, such as a social action, may be preferable. When managing institutional crises, organizations can answer questions by order of arousal level generated in each stakeholder group.

News content is considered more relevant to people than ads and is often shared on social networks. However, this is not the only type of content. Businesses have begun to use social networks as a media space, and to publicize their campaigns on these platforms. However, freedom of speech leads to the creation of advertising messages by fans of a brand, or by those who wish to reduce or stop the sale of products. Maybe, it will be necessary trademark laws change to adapt to this reality in a short period in the future.

The findings represent a major challenge for organizations, as well as a theoretical implication: the likelihood that advertisements opposing a company will be shared spontaneously appears to be larger than for positive news.

An attempt should be made to better qualify the different types of advertising; for example, institutional advertising and related products and services. Elections have been deeply influenced by the production of negative and positive content by journalists. Brands have been the target of campaigns by activists who exhibit unfavorable characteristics of products. This study helps to explain which content will be welcomed by consumers, and highlights that consumers will share a message if they believe it to be exciting and useful to some extent.

But is it the content's perceived usefulness that generates arousal, or is arousal a prerequisite for content to be considered useful? Further, in terms of the utility of an item, which is based on the subjectivity of the person viewing it, what other determinant factors would such content possess? Finally, would content in the form of advertising generated by a company be received differently from the content studied here? These questions could be addressed in future studies.

Among the limitations of this study are those relating to experimental research techniques, such as the study's external validity, which may have been compromised in favor of the internal validity, and the use of a convenience sample, which can lead to bias.

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