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HOAXES AND INFORMATION MANIPULATION ON NUTRITION IN SOCIAL NETWORKS: ANALYSIS OF TWO CASES OF USE OF NEUROMARKETING TECHNIQUES AROUND SUGAR

Bulos y Manipulación Informativa sobre Nutrición en Redes Sociales: Análisis de Dos Casos de Empleo de Técnicas de Neuromarketing en torno al Azúcar

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RESUMEN

Este artículo estudia las técnicas de comunicación persuasiva y neuromarketing aplicadas a publicidad alimentaria en redes sociales. En concreto, se efectúa un análisis de campañas relativas al consumo de azúcar. Este estudio tiene como objetivo explicar algunos factores predominantes en la viralización de bulos nutricionales a través del análisis de los casos de: "149 calorías de felicidad" de Coca-Cola y de la campaña crema de cacao del *influencer* Carlos Ríos del movimiento *Realfooding*. La metodología utilizada responde a técnicas como el análisis *Backwards Mapping*, según la teoría del cambio, para evaluar el impacto social. La fundamentación teórica utiliza como referencia los sesgos cognitivos del neuromarketing en concordancia con varios autores especializados de los cuales se amplía en la metodología. La observación del alcance de las campañas analizadas en Redes sociales traza la relación causal con respecto al efecto en el público e impacto generado en el periodo establecido. La viralización e impacto de estas campañas se ha medido a partir de indicadores cuantitativos y cualitativos. En base a los resultados obtenidos, se constata cómo la controversia acerca de la fiabilidad de la información ha afectado la percepción de la campaña, el grado de satisfacción del usuario y la reputación de los promotores de los productos en cuestión.

Palabras clave: *Fake news*, Nutrición, Neuromarketing, Marketing, Twitter, Comunicación, Estrategia, Persuasión.

ABSTRACT

This article studies persuasive communication and neuromarketing techniques applied to food advertising on social networks. Specifically, an analysis of campaigns related to sugar consumption is carried out. This study aims to explain some predominant factors in the viralization of nutritional hoaxes through the analysis of the cases of: "149 calories of happiness" from Coca-Cola and the cocoa cream campaign of the influencer Carlos Ríos of the Realfooding movement. According to the theory of change, the methodology used response to techniques such as the Backwards Mapping analysis to assess the social impact. The theoretical foundation uses the cognitive biases of neuromarketing as a reference, following several specialized authors whose methodology is expanded. The observation of the scope of the campaigns analyzed in Social Networks traces the causal relationship between the effect on the public and the impact generated in the established period. The viralization and impact of these campaigns have been measured based on quantitative and qualitative indicators. Based on the results obtained, we have verified how the controversy over the information's reliability has affected the campaign's perception, the degree of user satisfaction, and the reputation of the promoters of the products in question.

Keywords: Fake news, Nutrition, Neuromarketing, Marketing, Twitter, Communication, Strategy, Persuasion.

BULAS E MANIPULAÇÃO DE INFORMAÇÕES SOBRE NUTRIÇÃO EM REDES SOCIAIS: ANÁLISE DE DOIS CASOS DE UTILIZAÇÃO DE TÉCNICAS DE NEUROMARKETING REFERENTES AO AÇÚCAR

RESUMO

Este artigo estuda técnicas de comunicação persuasiva e neuromarketing aplicadas à publicidade de alimentos nas redes sociais. Especificamente, é realizada uma análise de campanhas relacionadas ao consumo de açúcar. Este estudo visa explicar alguns fatores predominantes na viralização de bulas nutricionais através da análise dos casos de: "149 calorias de felicidade" da Coca-Cola e a campanha de creme de cacau do influenciador Carlos Ríos do movimento Realfooding. A metodologia utilizada responde a técnicas como a análise do Backward Mapping, segundo a teoria da mudança, para avaliar o impacto social. A fundamentação teórica utiliza como referência os vieses cognitivos do neuromarketing de acordo com diversos autores especializados cuja metodologia é ampliada. A observação da abrangência das campanhas analisadas nas Redes Sociais traça a relação de causalidade com relação ao efeito sobre o público e o impacto gerado no período estabelecido. A viralização e o impacto dessas campanhas foram medidos com base em indicadores quantitativos e qualitativos. Com base nos resultados obtidos, verifica-se como a polêmica sobre a confiabilidade das informações afetou a percepção da campanha, o grau de satisfação dos usuários e a reputação dos promotores dos produtos em questão.

Palavras chave: *Fake news, Nutrição, Neuromarketing, Marketing, Twitter, Comunicação, Estratégia, Persuasão.*

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1. INTRODUCTION

Fake news stories spread 70% faster than truthful information, according to research by the Massachusetts Institute of Technology (MIT), published in the journal *Science* (2018). In the III Study carried out by specialists in nutrition and health, it has been revealed that

Professionals mainly attribute the increase in hoaxes to the new immediate communication channels (WhatsApp, Social Networks, etc.) that allow the faster spread of hoaxes (64%), and to a lesser extent to the information broadcasted by the media. (Salud sin Bulos & Doctoralia, 2020, p. 2)

This article analyzes the factors that promote the viralization of fake news about food health concerning sugar, evidencing used neuromarketing and persuasive communication techniques, which together with ICT open up original forms of interaction, useful for emotionally connecting with users managing to persuade or manipulate the perception of nutritional products among the population.

Specifically, an analysis of the cases of the advertising campaigns "149 calories of happiness" of Coca-Cola and the cocoa cream product of the nutritionist-influencer Carlos Ríos of the Realfooding movement was carried out. The measurement of the viralization and impact of these campaigns was carried out on three social networks: Instagram, Twitter, and YouTube, as they are the most used in these campaigns. The theory of change was used, a methodology used to assess the social impact and analyze the causal effect of business actions. Berrio's theory of persuasion (1983) and the classification of Martín & Beerli (2014) were also applied to measure the degree of advertising effectiveness. The theoretical foundations used for neuromarketing used references from authors such as Kahneman (2011) and others (see point 3 Methodology), thus aspiring to motivate novel theoretical and methodological approaches. Based on the results, some predominant factors were observed in the viralization of food hoaxes, analyzing various persuasive communication and neuromarketing techniques, and applied to food advertising on social networks.

2. OBJECTIVES

- Explain the predominant factors in the viralization of food hoaxes.
- Analyze persuasive communication and neuromarketing techniques applied to food advertising on social networks.
- Observe the scope and impact of the campaigns analyzed in these social networks.

3. METHODOLOGY

The applied methodology has used mixed research approaches. In the first place, a Backwards Mapping analysis based on the documentary dissertation of management notes, reports, websites, and through the study of the cases of two advertising campaigns: 149 calories of happiness from Coca-Cola and the cocoa cream product

of Carlos Ríos.

Second, the measurement of the impact of these campaigns on social networks, according to the guidelines of the theory of change, a methodology used to assess the social impact, with the analysis developed in the following phases:

Phase 1: Analysis of objectives and Communication & Neuromarketing strategies

Phase 2: Causality Mapping and Assumption Analysis

Phase 3: Measurement according to indicators (qualitative and quantitative)

Phase 4: Analysis of the results

The following sections explain how the methodology is applied in each of these phases.

3.1. Analysis of objectives and Communication & Neuromarketing strategies

It is important to clarify that the use of the described neuromarketing techniques is based on online marketing strategies, psychology, and neuroscience. In this way, neuromarketing will be understood from the double perspective it poses (Cuesta et al., 2020), the first present in consumer behavior and the second as a methodological tool, with the contribution of evaluation tools. The theoretical basis refers to Berrio's theory of persuasion (1983), to determine the type of strategies used, the classification of the three quantification categories according to Martín & Beerli (2014) was used as a reference, taking into account these campaigns' intention to produce a change in behavior in the receiver, so a measurement of the degree of effectiveness is required according to the following parameters:

Cognitive: measures the degree of understanding and impact of the message on the receiver.

Affective: measures the subject's response to the ad (behavior change or reinforcement).

Connotative: measures the response of users in results and intention.

As Olivera (2020) mentions, it is necessary to consider this technique as a particular and appropriate measure of the demographic and sociocultural factors that condition the results.

In this phase, the cognitive biases of neuromarketing were used as a reference following the fundamentals of Kahneman (2011) and his classification of fast (unconscious, automatic, disinhibited) and slow (conscious, deliberate, logical, controlled) thinking systems. The influence of cognitive bias, understood as the limitation in objective thinking, caused by the tendency of the human brain to perceive information, associating it with previous experiences for decision making, was also considered. Cognitive biases systematically produce adequate representations of subjective and distorted perceptions compared to a certain aspect

(Haselton et al., 2005).

3.2. Causality Mapping and Assumption Analysis

In the process of creating the causality map, explanatory assumptions of the causal relationship in its different stages were formulated. This phase was achieved by measuring the indicators explained in the following section (3.3). The causal effects will be taken into account according to the assessment in quantitative terms described in Figure 2, where the indicators consist of items.

3.3. Measurement according to indicators

The indicators will be respectively those described below.

3.3.1. Qualitative

- Scope and social impact generated in the users of the studied social platforms.
- Evaluation of the fulfillment of objectives and strategies used in the campaign.
- Analysis of information veracity of the campaign.
- Causal effect/repercussion on the reputation and image of the product/campaign.

3.3.2. Quantitative

- Reach measurement of tweets, views, and repercussions.
- Number of interactions, likes, comments, RT.
- Measurement of generated social impact.
- Follow up on the degree of satisfaction of the campaign in the users.

With the application of these variables, it was decided to establish a measurement according to the Likert scale in five levels, where the maximum is the category of "fully complies", equivalent to 20%; "mostly complies" corresponds to a score of 10%; "does not comply", -20%; "scarcely complies", -10%; and finally, when there is no data available "without information", which corresponds to 0%, with 100% being the maximum value if all the variables are met and 30% being the average.

3.4. Analysis of the results

Once the results were obtained, the causal effect between business actions and the generated social impact was evaluated in a given period, and the main predominant factors that contribute to the viralization of food hoaxes were established, to answer the following research questions:

What factors explain the viralization of food hoaxes?

How do persuasive communication and neuromarketing techniques applied to food advertising on social networks work?

What is the scope and impact of the campaigns analyzed in these social networks?

4. DISCUSSION

4.1. Analysis of objectives and communication/neuromarketing strategies used in the campaigns

It is increasingly common to find media statements with headlines that denounce social networks for being the medium where fake news stories spread, but what happens when the misleading information comes from the official source? This article analyzes two campaigns that were criticized for considering that the information they shared turned out to be "misleading", both campaigns have generated a high impact and virality on social media.

To determine the effectiveness in fulfilling the objectives of the campaigns, reference is made to the fulfillment of the most evident objectives in the contents disseminated by these campaigns and that will be measured with the three categories of Martín and Beerli (2014) that are mentioned in the methodology (see point 3).

The first and most recent is the Realfooding Movement Campaign with its product "Crema de Cacao" (cocoa cream). This product was promoted by the dietitian and nutritionist Carlos Ríos. The campaign was launched in October 2021 and ended in January 2022, with a series of audiovisual content broadcast on Social Networks. Through content analysis and quantification of the publications on his official Instagram account, it has been determined that the main objective and mission, in the words of its author Carlos Ríos (2021), is: "My mission with this product is that a large part of society finally says goodbye to the tons of added sugar, refined oils, or sweeteners that are ingested from the well-known ultra-processed creams". With this, he intends to promote a change in the food industry with healthy ingredients.

Some of the communication strategies used in this campaign have been based on comparative advertising. This strategy focuses on reinforcing the characteristics that give greater value to the product that is sought to be sold over competitors and demonstrate to consumers the differential benefits of the brand (Sordo, 2022).

From the perspective of neuromarketing, we have analyzed that the cognitive bias of authority is applied considering that the Influencer Carlos Ríos, besides being a reference as an expert nutritionist, also has a community of more than 1.5 million people (figure only on Instagram), which is why he has great reach and repercussion among his followers. The persuasive techniques that are related to the content and messages used in his social network are of the connotative type since they intend to motivate users to promote a healthy life through his Realfooding products.

The second campaign analyzed is "149 calories of happiness" from Coca-Cola. The dissemination of this multimillion-dollar campaign addressed several countries, among them, those that filed complaints against it, like Mexico and England. The dissemination addressed different media: television, radio, and digital media. Regarding digital media, the brand developed an online space with suggestions to burn the calories ingested in a Coca-Cola and strong advertising on social networks. However, due to the complaints and the statute of limitations on the campaign, there

is currently no record of this campaign on the company's official website in Mexico, but advertising images and videos can be seen in digital media articles and non-official social media accounts.

The campaign began in March 2013 and ended on June 16th, 2013. The communication strategy encouraged burning calories through activities such as laughing, jumping, cycling, dancing, or walking the dog, appealing to emotions such as happiness, fun, and above all a healthy life. Maya Schmid, director of marketing for Coca-Cola Mexico, stated that the campaign strengthened actions aimed at wellness, to find solutions to the challenge of obesity (Sánchez, 2013).

Coca-Cola advertising in the United Kingdom spread the claim: "139 calories to spend on happy activities", encouraging people to burn calories with activities, such as "25 minutes letting your dog be your GPS" or "75 seconds of laughing", among others.

Persuasive communication strategies use emotional content and pull marketing techniques to connect with millions of people around the world.

Regarding neuromarketing tactics, the use of a fast system (unconscious, automatic) caused by the effect of mere exposure can be distinguished, developing associative and familiar experiences with the brands. Which seeks to generate empathy with the emotions of happiness and well-being, driven by the attentional cognitive bias, to direct their preferences towards certain products (Kahneman, 2011).

4.2. Causality mapping and measurement according to indicators

A summary of the most outstanding causal factors for the measurement of indicators and results in the analyzed campaigns is described.

In the case of the Realfooding *Crema de Cacao* product, the campaign was criticized specifically for its labeling, with no added sugars and no sweeteners. However, in the descriptions of the ingredients, dates appear as a natural sweetener (La Sexta, 2021).

The follow-up carried out on the comments on Twitter and Instagram determined that one of the first people to question it was the food technologist Beatriz Robles (2021), who, through a Twitter thread, explained the problems that the label presented, among which the mention "no added sugar" was found. The nutritionist affirms that "R1924/2006 dictates that, if a product contains mono- and disaccharides or foods used precisely for their sweetening properties, this reference must be made on its labeling". Furthermore, the expert added that Carlos Ríos's message was contradictory since on his social networks he spoke of the food industry as a Matrix that tries to manipulate and boycott his product, appealing to the emotion and persuasion of his followers (Robles, 2021).

Carlos Ríos denied that his product had added sugars and on his social networks he insisted that adding refined sugar is not the same as date paste. In one of his

publications, he stated that it was "the healthiest cocoa cream in history" (Ríos, 2021).

Figure 1.

The healthiest cream post.



Source: Instagram Ríos (2021). https://www.instagram.com/p/CUqKHhPMX_r/

As detailed in the analysis of the results, the impact on both the degree of user satisfaction and the reputation of the campaign has been affected by these controversies.

Coca-Cola's "149 Calories of Happiness" campaign was denounced in several countries, including Mexico and England. In Mexico, the civil association El Poder del Consumidor, the Federal Commission for the Protection against Sanitary Risks (Cofepris by its acronym in Spanish), and the Federal Consumer Protection Agency (Profeco by its acronym in Spanish) denounced that the campaign included misleading content. The company responded that they were not going to remove the campaign, pointing out that it had ended on June 16th. Although the company did everything possible to not give more repercussions to the accusations, it is evident that the campaign was affected by the aforementioned facts, defining it as the largest advertising campaign that has been faced with a complaint for misleading advertising. The accusations refer to the information on the 149 calories and the amount in a 355-milliliter portion, pointing out that "this information is unclear and can mislead the consumer" since the referenced amount of the drink to be consumed is not well established (Calvillo, 2013).

In the United Kingdom, this campaign was denounced by the ASA (Advertising Standards Authority) considering that the ad contained misleading information due to the ambiguity in the number of calories that should be consumed and burned,

therefore, the campaign was classified as misleading advertising. To this, Coca-Cola responded that the activities needed to be carried out in combination to burn those calories present in a can of Coca, noting that the + sign communicated that the sum of these activities would burn 139 calories (Calvillo, 2013).

These types of demands continue to have repercussions today to the point of inscribing new regulatory measures on several fronts. In the United Kingdom, for example, a tax on sugary drinks is implemented, following the examples of France, Mexico, Hungary, and Spain which have established an increase in taxes on sugary drinks. In the United States, they also adduce this type of measure to limit the disproportionate impact on the health of residents (El País, 2017).

4.3. Análisis de Resultados

Applying the methodology described above, the results of the quantitative and qualitative indicators applied to the campaigns are described in Table 1.

Table 1.
Description of indicators

	Campaña: crema de cacao					The Minimum Viable Test						Total
	LO CUMPLE COMPLETAMENTE	LO CUMPLE EN SU MAYORIA	SIN INFORMACIÓN	LO CUMPLE POCO	NO LO CUMPLE	LO CUMPLE COMPLETAMENTE	LO CUMPLE EN SU MAYORIA	SIN INFORMACIÓN	LO CUMPLE POCO	NO LO CUMPLE		
Rango-porcentaje	20%	10%	0%	-10%	-20%		20%	10%	0%	-10%	-20%	
Variables:												
Evaluación del cumplimiento de objetivos y estrategias empleadas en la campaña					X						X	
Veracidad en la información de la campaña				X							X	
Alcance e impacto social generado en los usuarios en medios sociales	X						X					
Efecto/Repercusión causal en la reputación e imagen del producto/ campaña	X							X				
Medición de impacto social generado	X						X					
Suma Total						30%						10%

Source: Own elaboration.

The assessment in quantitative terms is described in Figure 2, where the indicators consist of items.

Item 1: Evaluation of the achievement of objectives and strategies used in the campaign.

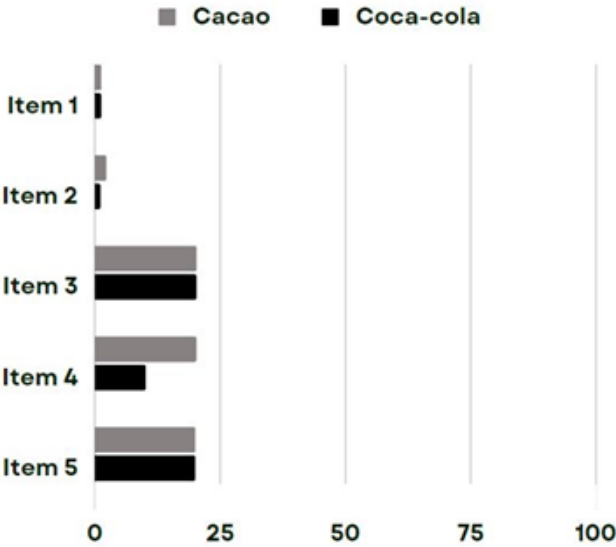
Item 2: Analysis of information veracity of the campaign.

Item 3: Scope and social impact generated in users in social media.

Item 4: Causal effect/repercussion on the reputation and image of the product/campaign.

Item 5: Measurement of generated social impact.

Figure 2.
Indicator valuation

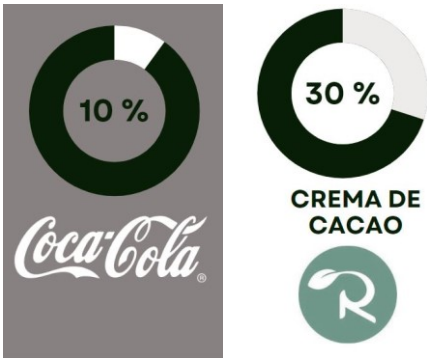


Source: Own elaboration.

As can be seen, the assessment does not reach the expected minimum (30%), therefore, in the evaluation of the fulfillment of the objectives and strategies used in the campaign, it is determined that the objectives are not met in any of them, since the highest impact and scope generated is related to the controversy unleashed in both campaigns. The content analysis carried out has yielded decisive results to understand the main reason why these campaigns have been considered misleading information. The most repeated factor in the comments on social networks was that the campaigns presented partial and poorly contrasted data.

The general results reveal that the initial purpose of positively impacting their target audience is not fulfilled. The cocoa cream campaign only reaches 30% effectiveness and 149 calories from Coca-Cola 10% in compliance with the indicators, as can be seen in Figure 3.

Figure 3.
Compliance with indicators

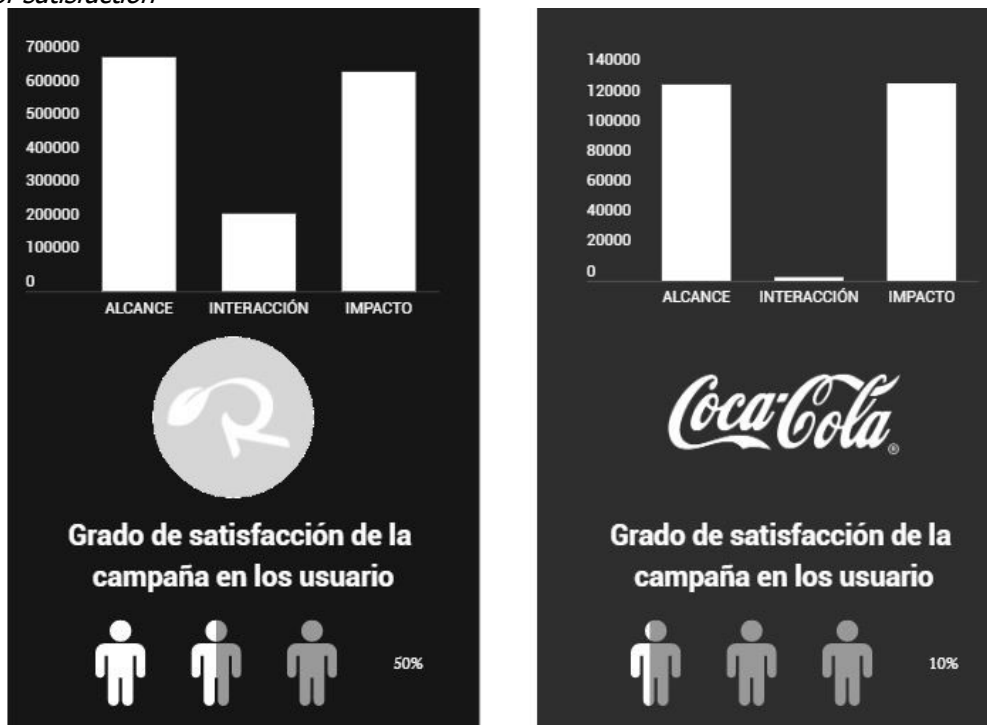


Source: Own elaboration.

The quantitative measurement of the campaigns has shown a high degree of reach, interactions, and impact measurement in the evaluated social networks (Twitter; Instagram; YouTube). In the qualitative analysis phase, it has been possible to demonstrate the degree of satisfaction, according to the analysis of the content of the publications, comments, Retweets, and other determining indicators (see methodology).

The importance of presenting clear and exact information is a factor that intensifies the controversy regarding these campaigns and that determines consumer nonconformity. The discussion in this regard generated an official response from the representatives of these campaigns. In the case of Coca-Cola, the strategy was to end the campaign trying not to give greater visibility to the complaints and in the case of the Crema de Cacao, new content was generated to clarify the ingredients with nutritional information, sparking a great debate among Internet users and specialists which in both cases affects the credibility and reputation of the brands involved.

Figure 4.
Degree of satisfaction



Source: Own elaboration.

As can be seen in Figure 4, the degree of satisfaction in digital media in the case of the product *Crema de Cacao* has been 50% of users who, according to their comments and interactions, have agreed with Realfooding, and 10 % in the case of 149 calories of Coca-Cola. According to the Backwards Mapping carried out of the period before the implementation of the campaigns, we found a drop in the degree of satisfaction in both cases.

5. CONCLUSIONS

According to the results obtained and considering the specific objectives of the research, we can conclude that the viralization factors of food hoaxes in these cases are: labeling problems, ambiguity, and information manipulation. The most repeated factor in the comments on social networks was that the campaigns presented partial and poorly contrasted data.

The scope-impact measurement variables were: the number of posts and views (tweets-views), number of interactions (likes-comments-RT) related to the campaigns, and measurement of the generated social impact (repercussion-interactions on social networks and the web); which determined that both the *Crema de Cacao* campaign and the Coca-Cola campaign had a high degree of reach and impact, however, the degree of user satisfaction after the controversy had decreased and therefore their reputation as well. Thus, the *Crema de Cacao* campaign achieved 30% effectiveness and 149 calories from Coca-Cola 10% compared to their objective of generating a positive impact. However, after the criticism of the campaigns, a significant reduction of 50% (Coca-Cola) and 40% (*Crema de Cacao*) of their effectiveness is verified, respectively, compared to the dates before the filed complaints.

Thus, the scope of social media campaigns is related to the used communication strategies. The public responds to the used strategies, both in the construction of the campaigns and in the subsequent rectification of the questioned information, which reveals the hypothesis that the communication and marketing strategies have promoted the scope of these campaigns that have used persuasive, cognitive, affective, and connotative communication techniques in both cases.

The controversy over the reliability of the information has affected the perception of the campaign and the reputation of the promoters. The causal repercussion has a boomerang effect in terms of reputational credibility, as we were able to verify with the Backwards Mapping based on management notes, reports, and websites. These types of controversies faced by the analyzed campaigns are driven by the need to guarantee clear, reliable, and truthful information. These examples have exposed the importance of communicating correctly using information appropriate to the context and regulations of each sector.

When referring to nutritional health, the main victims of receiving unreliable or incomplete information are consumers, and, therefore, it is important to have truthfulness and accuracy in the information regarding the products that are marketed. Consequently, it is imperative to emphasize the need to establish measures to ensure the accuracy of nutritional information both on social networks and on the Internet, but it is also important to generate spaces for literacy, fact-checking, and critical thinking. By providing accurate information for the population, functions that contribute to the fight against disinformation in health will be ensured.

6. REFERENCES

- Berrio, J. (1983). *Teoría social de la persuasión*. Mitre.
- Calvillo, A. (2013). *El poder del consumidor. Crónica de una campaña engañosa. Engaño Publicitario, Salud nutricional*. <https://bit.ly/3xD0Mdu>
- Cuesta, U., Niño, J., & Martínez T. (2020). *Viaje al fondo del neuromarketing*. Editorial Fragua.
- El País (2017). *Coca-Cola, demandada por la publicidad engañosa*. <https://bit.ly/3OlpBJ>
- Haselton, M. G., Nettle, D., & Andrews, P. W. (2005). *The evolution of cognitive bias*. D.M. Buss.
- Kahneman, D. (2011). *Thinking, fast and slow*. Farrar, Straus and Giroux.
- La Sexta. (2021). *Los matices del etiquetado. Polémica por la crema de cacao de Carlos Ríos qué significa realmente sin azúcares añadidos*. <https://bit.ly/37YrVNu>
- Martín, J., & Beerli, A. (2014). *Medición de eficacia publicitaria*. En *Publicidad 360*. Ediciones Universidad San Jorge. <https://dialnet.unirioja.es/servlet/articulo?codigo=4652374>
- Olivera, A. (2020). Efectividad de la publicidad social. En Cuesta, U., Niño, J., & Martínez. *Viaje al fondo del neuromarketing*, 108-109. Editorial Fragua.
- Ríos, C. [@Carlosriosq]. (2021, 5 de octubre). *La crema de cacao más saludable de la historia*. [Post en Instagram]. https://www.instagram.com/p/CUqKHhPMX_r/
- Robles, B. (2021). *Realfooding ¿Dónde está el límite?* Play cadena ser. <https://play.cadenaser.com/audio/1634815235749/?autoplay=true?ssm=tw>
- Robles, B. [@beatrizcalidad]. (2021, 8 de octubre). *Análisis a crema de cacao*. [Tweet]. Twitter. <https://bit.ly/3EolhML>
- Salud sin Bulos y Doctoralia. (2020). *III Estudio sobre Bulos en Salud: Covid 19. Encuesta a profesionales de la salud en España*. <https://bit.ly/3OlsqSw>
- Sánchez, V. (2013). *Campaña de la semana Lanza Coca-Cola estrategia de 149 calorías*. Merca20. <https://bit.ly/3ryD52g>
- Science (2018). *La difusión de noticias verdaderas y falsas en línea*. <https://www.science.org/doi/full/10.1126/science.aap9559>
- Sordo, A. (2022). *Estrategias de publicidad. Definición, tipos y ejemplos*. <https://blog.hubspot.es/marketing/estrategias-de-publicidad>

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Annex

Table 2.

Impact measurement

<i>The Minimum Viable Test</i>				
<i>Campaign</i>	<i>Campaign: cocoa cream</i>		<i>Campaign: Coca-Cola</i>	
<i>Measurement</i>	<i>Scope-Impact (100=Low; 10000= High)</i>	<i>Total</i>	<i>Scope-Impact (100=Low; 10000= High)</i>	<i>Total</i>
<i>Reach measurement of (Tweets - Views-repercussion) related to the campaign</i>	633,706K	High	130,768k	High
<i>Number of Interactions (likes-comments-RT)</i>	23180K	High	259,00	Medium
<i>Measurement of generated social impact</i>	656K	High	131k	High
<i>Degree of user satisfaction with the campaign</i>	50%	Medium	10%	Low

Source: *Own elaboration.*