

Research Article

# Enhancing shopping centers' media visibility

## Mejora de la visibilidad mediática de los centros comerciales

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Fecha de Recepción: 27/05/2024

Fecha de Aceptación: 17/07/2024

Fecha de Publicación: 24/07/2024

### Cómo citar el artículo (APA 7<sup>a</sup>):

Pedreño-Santos, A. (2025). Enhancing shopping centres' media visibility [Mejora de la visibilidad mediática de los centros comerciales]. *European Public & Social Innovation Review*, 9, 1-16. <https://doi.org/10.31637/epsir-2024-390>

### Abstract:

**Introduction:** In times of crisis such as a war, pandemic or meteorological hazard, companies face a double challenge: communicating with the consumer both from a commercial point of view and communicating to the consumer the instructions to follow derived from the risk situation. This research provides a conceptual and managerial overview of the components generating media impact in times of health crisis. **Methodology:** First, seventeen components are identified and grouped in three dimensions: *content*, *format* and *organisation*. We study the communication strategy of four shopping centres during the week of the reopening of the shopping centres after the COVID-19 pandemic lockdown of March-May 2020 in Madrid, Spain. Second, 164 news stories are analysed with a panel of experts and a principal component analysis, to determine the components of communication that present higher impact on media. **Results:** Shopping centres media visibility in times of crisis, increase by using intuitive content that generates learning and security, in a format that details instructions clearly. **Conclusions:** It is a must for companies to have previously worked on building credibility and brand awareness, in order get space in media during crisis periods.

**Keywords:** risk communication; public relations; media; shopping centres; instructional communication; format; content; organization.

### Resumen:

**Introducción:** En tiempos de crisis como una guerra, una pandemia o un peligro meteorológico, las empresas se enfrentan a un doble reto: comunicarse con el consumidor

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tanto desde el punto de vista comercial como comunicándole las instrucciones a seguir derivadas de la situación de riesgo. Esta investigación ofrece una visión conceptual y de gestión de los componentes que generan impacto mediático en tiempos de crisis sanitaria. **Metodología:** En primer lugar, se identifican diecisiete 17 componentes agrupados en tres dimensiones: contenido, formato y organización. Se estudia la estrategia de comunicación de cuatro centros comerciales durante la semana de reapertura de los centros comerciales tras el cierre por pandemia COVID-19 de marzo-mayo de 2020 en Madrid, España. En segundo lugar, se analizan 164 noticias con un panel de expertos y un análisis de componentes principales, para determinar los componentes de la comunicación que presentan mayor impacto en los medios. **Resultados:** La visibilidad mediática de los centros comerciales en tiempos de crisis, aumenta al utilizar contenidos intuitivos que generan aprendizaje y seguridad, en un formato que detalla claramente instrucciones. **Conclusiones:** Trabajar previamente en ser conocido como empresa y generando credibilidad, es imprescindible para conseguir espacio en medios durante periodos de crisis.

**Palabras clave:** comunicación de riesgos; relaciones públicas; medios de comunicación; centros comerciales; comunicación instructiva; formato; contenido; organización.

## 1. Introduction

Reaching citizens through the media in the form of news, has a great impact for companies. It generates engagement up to eight times that of a typical advertising impression (Fulgoni et al., 2017). Therefore, knowing how to get media space is crucial for businesses in general and shopping centres in particular.

This need increases considerably in times of crisis such as a war, pandemic or meteorological hazard (snowstorm, hurricane, fire, etc.). These situations pose an organizational and social challenge at all levels (Almeida, 2021). From a business point of view, in most cases there is an immediate lockdown of physical facilities until the authorities and the company itself are ready for a reopening (Fakhruddin et al., 2021). From a communication point of view, companies face a double challenge in these situations: communicating with the consumer from a commercial point of view and communicating to the consumer the instructions to follow derived from the risk situation.

As an example, the COVID-19 pandemic reached Europe in the first months of year 2020, leading to a health and economic crisis. A severe lockdown was installed in many European countries during several weeks in the period March-June. During this period, the population was constantly exposed to information on the effects of the pandemic on health and the economy (Hayek, 2024). Fear and restrictions derived from health management, had a dramatic restraining effect on consumption in retail (Pantano et al., 2020).

From the viewpoint of businesses, the situation was especially difficult because communication to customers should incorporate health safety standards, on the one hand, and attract the attention of potential consumers, on the other (McNeish, 2020). The receptiveness of the population was in a different state (Lohiniva et al., 2020), paying more attention to traditional media (Austin et al., 2012), which are granted more credibility and viewing time (Liu et al., 2011).

For companies, however, it was difficult to find a slot in these media, that were focused on narrating the effects of the health crisis (Masip et al., 2021). Thus, there were few examples of companies that manage to appear in these media (Kantar, 2020).

There are several studies related to the communication of companies in times of crisis, but they mainly deal with reporting a crisis of the organisation to the public (e.g. defects in the building structure, labour disputes, etc -Kuşay, 2017; Van der Meer et al., 2017-) and 2) studies addressing the communication during a risk event (e.g. bomb warning, tsunami warning, etc.) that focus on what should be communicated and how (Wang et al., 2021). There is very little empirical research devoted to commercial communication in times of health crisis (McNeish, 2020) and, to our knowledge, there are no studies relating the components of the successful commercial communication for this particular situation. Further, we have not found any research that studies how the shopping centre can maintain or obtain media space during a risk situation, when its access to the media is particularly limited.

This work aims to fill this gap and is justified by the great importance of media coverage for brand awareness and communication with the consumer, especially at a time when it needs maximum support to face the reopening.

The aim of this work is to give guidelines to shopping centres that want to have a space in the traditional media (TV, Radio, Press) to do corporate communication in risk scenarios. To do so, we first study the factors of success in communication during risk events. The factors found in the literature are three: 1) the content of the communication, 2) the format of the communication and 3) the relationship that the organisation (e.g. company, institution) has with the media. Secondly, we apply the obtained model to a risk situation. We analyse the news issued in traditional media dealing with the reopening of shopping centres in Madrid, Spain, after the general lockdown during the COVID-19 pandemic. This case is significant, as Madrid was one of the cities with the highest incidence of the first wave of the COVID-19 pandemic in Europe, and with the highest degree of disruption of the economic activity. The reopening of shopping centres in June 2020 presented a strong symbolism: after more than two months of lockdown, consumers were allowed to go shopping again. The shopping centres faced two communication challenges (1) transfer to the customers the restrictive measures defined by the authorities and (2) encourage customers to return to their shops during a health crisis. Finally, we make recommendations to help the organisations to prepare for future adverse events contributing to the existing risk communication literature.

## **2. Components of business communication in health crisis**

The risk communication literature describes three major components that lead to a good communication, that are: content, format and the company's credibility, and relationship with the media. Next, we explain the relationship of this components with a successful commercial communication.

### **2.1. Content**

In times of health crisis people are barely responsive to issues other than those related to the pandemic itself (Fischhoff et al., 1993; Puyod, & Charoensukmongkol, 2021). Therefore, business communication should have a situation-related content in order to be effective (Liu et al., 2011).

Information plays a key role in risk communication, but directives from authorities are abstractions until they turn into a personal experience or a tangible manifestation for the general public (McNeish, 2020). In the case of the COVID-19 pandemic, while governments ordered social distancing behaviours, it was up to retailers to determine how to implement and communicate them (McNeish, 2020). This has shown the importance of business communication in times of health crisis, an area where literature is very scarce.

To put this into practice, numerous studies emphasize the communication of behavioural instructions (or instructional communication) as an essential step in restoring order in crisis situations (Sellnow et al., 2012), generating security through strong, clear and tangible mental representations (Yoon, & Choi, 2016).

The first step in the design of instructional communications is the proper selection of information (Sandman and Lanard, 2003). The content must be meaningful and understood by those who receive it (Lohiniva et al., 2020). The more it fits in what the receiver can intuitively understand that the business wants to communicate, the more effective the communication will be (Yoon, & Choi, 2016). Poorly chosen information can have several negative effects, among which is that it can make the receiver angry for not considering the person's sensitivity to the moment of crisis he or she is experiencing (Fischhoff et al. 1993; Sandman, & Lanard, 2003).

Instructional communication should encourage learning, this is, understanding plus retention plus application of the message (Ho, 2024). The use of tools such as concrete experience, reflection, observation, abstract conceptualization and active experimentation will enhance learning by the receiver (Sellnow et al., 2012).

## **2.2. Format**

Communications in health crisis situations must generate reliability, both through their content and their format. They should inform people about the risk they are running and at the same time encourage their participation in complying with the behavioural instructions (Lohiniva et al., 2020).

The format of good communication presents the information in an understandable way. Understanding is enhanced when information is clearly structured, and especially when that structure fits the intuitive representation of the topic for the recipients (Yoon, & Choi, 2016). It is important that there is congruence between visual and auditory information when communicating. Inconsistency leads to increased cognitive load and decreased understanding of the verbal message (Russell et al., 2017).

The use of supplements to help understand and retain content can be even more effective for learning than the text itself. These supplements can be very diverse: highlighters, advanced organisers (showing what can be expected), summaries, images, etc. (Fischhoff et al., 1993). In particular, the use of images to communicate restrictions is more effective than the use of text alone (Muñoz et al., 2016). Likewise, testimonials from people following instructions are more effective in generating credibility than mere general or statistical communication (Hinnant et al., 2013).

## **2.3. Organization**

The media and journalists can contribute to create or to prevent public panic and therefore play an important role in preventing the escalation of the crisis (Christensen, & Khalil, 2023). People, in times of crisis, rely more on information received from traditional media, rather than social media or word of mouth (Xu, 2020) and are more likely to accept information from an organisation when it comes through a third party (Liu et al., 2011) as it is for example a traditional media such as television or radio.

Therefore, for an organisation that wants to generate credibility and awareness in a situation of crisis, it is a priority to reach out to traditional media. There are three types of sources that are commonly used by news media in crisis (Van der Meer et al., 2017): (1) news agencies (2) institutional or corporate communications such as press releases, which have an increasing place in the media, and (3) the general public, which puts a face on information in a testimonial format. According to Van der Meer et al. (2017) journalists in times of crisis choose their sources based on five components of the source: credibility, knowledge, predisposition, speed and the relationship with the journalist.

### 3. Research objectives

Based on the literature presented above, this paper investigates the relationship between the three most relevant variables of communication in times of crisis (content, format, organisation), through the components of each of these variables, which are summarised in Table 1. To do so, we will analyse the communication carried out by four shopping centres in times of pandemic. The objective is to locate in each of the communications carried out by each shopping centre, each of the components of the variables used. Thus, when analysing the news from the four shopping centres:

1. We will seek the following components of the communications' content: it must be relevant and intuitive within the health crisis; it must generate security and it must facilitate learning by influencing people's behaviour.
2. We will look for the following components of the format: it must detail behavioural instructions, being clear, consistent, credible and encouraging participation with the help of testimonies and images.
3. We will determine the level of these five components related to the organization: credibility, knowledge, predisposition, speed and the relationship with the journalist.

**Table 1.**

*Components of communication in health crisis*

| <b>Content</b>   | <b>Format</b>   | <b>Organization</b>  |
|--|---|--|
| <b>C1. Intuitive</b><br>fits the intuitive representation of the topic (mainly instructions) for the receivers.                          | <b>F1. Instructions</b><br>details instructions.                      | <b>O1. Credibility</b><br>to be part of, or to generate news.  |
| <b>C2. Learning</b><br>facilitates learning (through concrete experience, reflection, observation, abstract and active experimentation). | <b>F2. Reliable</b><br>reliable format.                               | <b>O2. Knowledge</b><br>of the problems of its industry. Also, level of professionalism of its communication management. |
| <b>C3. Security</b><br>generates security through strong and tangible mental representations.  | <b>F3. Clear</b><br>clear and understandable structure.               | <b>O3. Predisposition</b><br>willing to talk about the organization's issues and facilitate the journalist's work.       |
| <b>C4. Behaviour</b><br>influences behaviour.  | <b>F4. Testimonials</b><br>uses complementary aids: testimonials.     | <b>O4. Speed</b><br>when called immediately.   |
| <b>C5. Relevant</b>  | <b>F5. Images</b><br>uses complementary aids: images.                 | <b>O5. Relationship</b><br>personal relationship with  |
|  | <b>F6. Congruent</b><br>congruent format between sender and receiver. |  |
|  | <b>F7. Participation</b><br>encourages participation.                 |  |

the information is significant and relevant.

the journalist.

**Source:** Own elaboration (2024)

Once the communication components used by each of the shopping centres have been identified, the objective is to identify those combinations of elements that have generated greater visibility in the media.

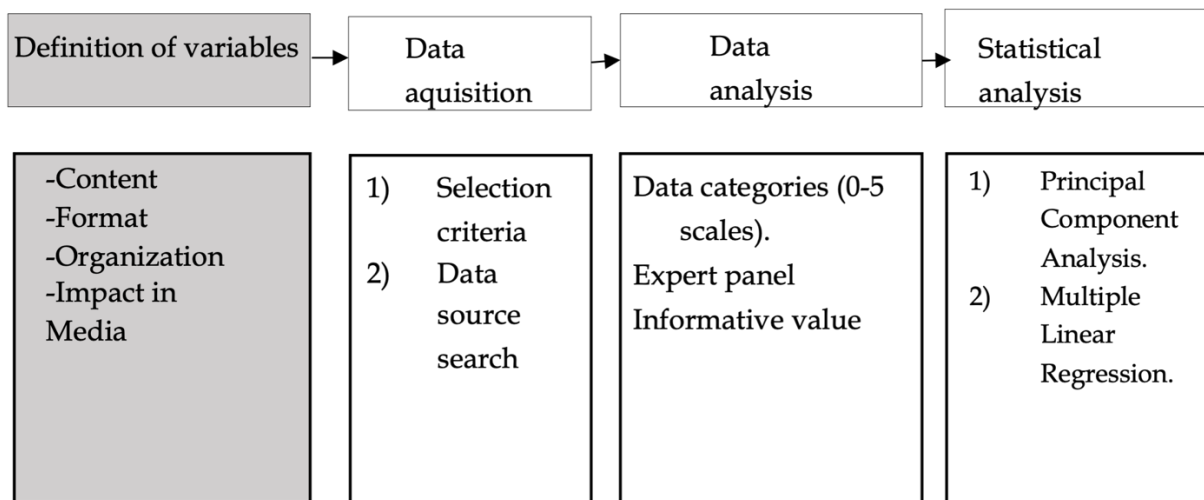
## 4. Data and method

### 4.1. Methodology

The study is divided in four phases (Figure 2). The first one is the definition of variables, already presented in section 2. The second phase is data acquisition, including the criteria for data selection and the data search in proper sources. The third one is data analysis. This phase requires the definition of variable-specific scales to rank different communication components, the use of an expert panel to evaluate the organisation and other published measures of communication components. With the assessments of the content, format and organisation (the shopping centre) and its repercussion in the media, an analysis of the main components is carried out on an exploratory basis. Finally, we perform a Linear Multivariate Regression on the three components that generate the most variability, to determine their impact on media impact.

**Figure 1.**

*Work phase diagram*



**Source:** Own elaboration (2024).

### 4.2. Data acquisition

To carry out the analysis we chose four shopping centres in the city of Madrid, one of the cities that took more restrictive measures in the first wave of the COVID-19 pandemic in Europe. All four centres have similar levels of recognition, they were opened long ago (opening year in parentheses) and are located in high-traffic locations: La Vaguada (1983) and Príncipe Pío (1993) within the city, and Parquesur (1989) and Plenilunio (2006) in outskirts. All of them have

regular appearances in the media.

We need two types of data: the news themselves to assess the components of the communication, and their value (it is not the same to appear in a television news program as a press release in an internet forum).

Both data are provided by the most consolidated analysis tool in the Spanish market: Kantar. Kantar's report gives the descriptive name of the news item, the name of the medium, the type of medium, the duration and the link to the news item regardless of the medium in which it appeared (television, radio, press, internet...), the equivalent value of the advertising and its informative value. It constitutes a reliable and homogeneous source of information for our study.

A total of 164 news appeared in the traditional media related to the four shopping centres during the week of 8 to 15 June 2020. The information portrayed in this news, disaggregated per shopping centre, can be summarized as follows:

**PRINCE PIO.** The appearance of the Shopping Centre in the news is circumstantial. It is a centre located in a train station in the centre of the city and the media mention it as part of the general news about the reopening after the closure due to health legislation. The number of news items mentioning this shopping centre is 29,18% of the total analysed.

**PLENILUNIO.** The centre turns its communication in detailing the schedules of reopening and the fulfilment of the health measures. The number of news items mentioning this shopping centre is 19,12% of the total analysed.

**PARQUESUR.** It carries out a specific reopening action with a gastronomic proposal in the open air. This action has little relevance in the published news that focus on the health safety aspects of the reopening, giving plenty of information in this sense. The number of news items mentioning this shopping centre is 32,20% of the total analysed.

**LA VAGUADA.** It informs that visitors are welcomed with a flower and with mime performances explaining how the behaviour inside the centre should be: they pay attention to the health measures by resorting to humour. The news published (TV, Radio, Press and Internet) include testimonies and attractive images of an opening that is perceived as different from the rest of the centres analysed. The number of news items mentioning this shopping centre is 84,51% of the total analysed.

### **4.3. Data analysis**

There are different approaches in the literature to measure the results of the communication strategy of a company (Laskin, 2012). Some approaches give a global estimate of the communication strategy (Valenzuela et al., 2017) or put the focus the components of those news items that generate the greatest impact (Trilling et al. 2017). In this study, given that the components identified in the literature for health crises do not coincide with previous studies, we created specific scales. These are explained below.

#### **4.3.1. Evaluation of content and format components**

For the components of content and format, the 164 news items are assessed from 0 to 5 according to the criteria set out in Table 2. The criteria defined aim to (1) determine whether an element is objectively found in the news story and (2) to what extent the element

accentuates the notoriety of the business in the item.

**Table 2.**

*Scale measuring shopping centres' news components during health crisis*

|                     | 0   | 1  | 2  | 3   | 4  | 5  |
|---------------------|---|--|--|---|--|--|
| <b>Content</b>      |   |  |  |   |  |  |
| C1.<br>Intuitive    | No relationship between topic and shopping centre | It is not clear why the shopping centre does the communication | Describes the business activities                            | The relation between content and the shopping centre is clear                   | Also, the name or image of the centre appears during 1/2 of the news | Also, the name or image of the centre appears during 2/3 of the news |
| C2.<br>Learning     | There are no instructions                         | Instructions are confusing                                     | Includes instructions  | It includes elements for reflection, observation and conceptualization          | Also, the name or image of the centre appears during 1/2 of the news | Also, the name or image of the centre appears during 2/3 of the news |
| C3.<br>Security     | Content or issuer is negative                     | The information is confusing                                   | Information is incomplete                                    | Includes tangible representations: e.g. examples                                | Also, the name or image of the centre appears during 1/2 of the news | Also, the name or image of the centre appears during 2/3 of the news |
| C4.<br>Behaviour    | Content influences negative behaviour             | Content influences unexpected behaviour                        | Content includes some characteristics to influence behaviour | It includes elements related to concrete experience, and active experimentation | Also, the name or image of the centre appears during 1/2 of the news | Also, the name or image of the centre appears during 2/3 of the news |
| C5.<br>Relevant     | Content with no sensibility to the crisis         | information that does not contain the crisis                   | Content with some reference to the crisis                    | Crisis-focused content  | Also, the name or image of the centre appears during 1/2 of the news | Also, the name or image of the centre appears during 2/3 of the news |
| <b>Format</b>       |   |  |  |   |  |  |
| F1.<br>Instructions | Avoids instructions                               | Doesn't contain instructions                                   | Indicates the need to comply with instructions               | Instructions are detailed   | Also, the name or image of the centre appears during 1/2 of the news | Also, the name or image of the centre appears during 2/3 of the news |

|                      |   |  |  |   |  |  |
|----------------------|---|--|--|---|--|--|
| F2.<br>Reliable      | Some element used (e.g. language) is negative         | Some element used (e.g. the person) stops reliability      | Some element used (e.g. tone) hinders reliability          | Instructions are detailed in a language (oral, written or visual) that generates security | Also, the name or image of the centre appears during 1/2 of the news | Also, the name or image of the centre appears during 2/3 of the news |
| F3.<br>Clear         | Some element used (e.g. language) generates confusion | Some element used (e.g. tone) stops understanding          | Some element used (e.g. person) hinders understanding      | Information's structure is clear and understandable                                       | Also, the name or image of the centre appears during 1/2 of the news | Also, the name or image of the centre appears during 2/3 of the news |
| F4.<br>Testimonials  | Testimonials are negative for the company             | No testimonials included                                   | Testimony has no specific relation to the communication    | Testimony gives personal details of the instructions                                      | Testimony is linked to the shopping centre                           | Testimony specifically mentions the company                          |
| F5.<br>Images        | The images are negative for the mall                  | No images included   | The images are not specifically related to communication   | Image allows to understand the concrete situation   | Image includes a business reference (e.g. logo or quote)             | Image is a main element of the news                                  |
| F6.<br>Congruent     | The lack of congruence is negative                    | Some element used (e.g. photography) is inconsistent       | Some element used (e.g. tone) hinders congruence           | The format is congruent to the receiver.  | Also, the name or image of the centre appears during 1/2 of the news | Also, the name or image of the centre appears during 2/3 of the news |
| F7.<br>Participation | Format influences negative participation              | Some elements (e.g. misinformation) prevents participation | Some elements (e.g. lack of details) hinders participation | Includes information and specific calls for participation                                 | Links participation with a mention of the Centre                     | News is linked to the participation in the shopping mall             |

## Organization

|                       |            |          |     |         |      |           |
|-----------------------|------------|----------|-----|---------|------|-----------|
| 01.<br>Credibility    | Not at all | Very low | Low | Regular | Good | Very good |
| 02.<br>Knowledge      | Not at all | Very low | Low | Regular | Good | Very good |
| 03.<br>Predisposition | Not at all | Very low | Low | Regular | Good | Very good |
| 04.<br>Speed          | Not at all | Very low | Low | Regular | Good | Very good |
| 05.<br>Relationship   | Not at all | Very low | Low | Regular | Good | Very good |

**Source:** Own elaboration (2024).

The 164 publications are analysed according to this scale. The average evaluation of the components of content and format for the 164 news items is shown in Tables 3 and 4.

**Table 3.**

*Content components 'mean value by shopping centre*

| Content      | Intuitive | Learning | Security | Influences behaviour |
|--------------|-----------|----------|----------|----------------------|
| La Vaguada   | 4,65      | 4,89     | 4,94     | 4,94                 |
| Parquesur    | 4,44      | 4,66     | 4,94     | 3,23                 |
| Plenilunio   | 3,96      | 4,02     | 3,92     | 2,21                 |
| Príncipe Pío | 2,01      | 1,88     | 3,81     | 0,89                 |

**Source:** Own elaboration (2024).

**Table 4.**

*Format components 'mean value by shopping centre*

| Format       | Details instructions | Reliable format | Clear | Testimonials | Images | Congruent | Encourages participation |
|--------------|----------------------|-----------------|-------|--------------|--------|-----------|--------------------------|
| La Vaguada   | 4,92                 | 5,00            | 4,96  | 4,94         | 4,94   | 4,65      | 4,94                     |
| Parquesur    | 4,94                 | 5,00            | 4,73  | 0,23         | 0,58   | 3,06      | 2,14                     |
| Plenilunio   | 3,98                 | 4,04            | 4,00  | 0,14         | 0,24   | 3,00      | 0,95                     |
| Príncipe Pío | 2,85                 | 3,11            | 3,11  | 0,00         | 0,18   | 1,98      | 0,86                     |

**Source:** Own elaboration (2024).

#### 4.3.2. Evaluation of the organisation (shopping centre) as a source of information.

A panel of experts assess the components of each of the shopping centres according to their recognition as a possible source of information. These experts are communication department managers, public relations agency managers and media journalists specialized in business communication and with regular contact with shopping centres. Of the 20 experts contacted via email, 16 responded to the form in which they were asked to evaluate from 0 to 5 the components of the organisations (0 being that they do not have that component at all and 5 that they have it in a very relevant way – Table 2).

The average rating for each of the studied shopping centres is shown in Table 5.

**Table 5.**

*Organization components' mean value by shopping centre*

| <b>Organization</b> | <b>Credibility</b> | <b>Knowledge</b> | <b>Predisposition</b> | <b>Speed</b> |
|---------------------|--------------------|------------------|-----------------------|--------------|
| La Vaguada          | 5,00               | 4,94             | 4,81                  | 4,88         |
| Parquesur           | 4,94               | 4,88             | 2,06                  | 1,38         |
| Plenilunio          | 5,00               | 4,94             | 1,06                  | 1,00         |
| Príncipe Pío        | 4,06               | 3,88             | 1,31                  | 1,13         |

**Source:** Own elaboration (2024).

#### 4.3.3. Evaluation of the media impact

We obtain the media impact from the number of news items that have appeared in different media and their associated Informative Value. We get it from Kantar. Informative Value is an estimated value that includes qualitative criteria such as the type of media and its credibility, information content (positive or negative), key messages, brand attributes, reach and visibility. Compared to the most commonly used Advertising Value Equivalent (an estimate of what the brand would have had to pay the media for the space the information occupied - Watson 2013-), it includes the higher degree of motivation and interest in the information content of the consumer (Kantar, 2020). The person, when watching or listening the news, does not incur in the processing of the advertising communication (Watson 2013).

The media impact in terms of number of news items and informative value is shown in Table 6.

**Table 6.**

*Impact of communication on news media (8-15 June 2020)*

| <b>News</b>               | <b>Press</b> | <b>Radio</b> | <b>Television</b> | <b>Web</b> | <b>Total</b> |
|---------------------------|--------------|--------------|-------------------|------------|--------------|
| La Vaguada                | 6            | 3            | 19                | 56         | 84           |
| Parquesur                 |              |              | 4                 | 28         | 32           |
| Plenilunio                |              |              | 1                 | 18         | 19           |
| Príncipe Pío              |              |              | 3                 | 26         | 29           |
| <b>Informative Value€</b> | <b>Press</b> | <b>Radio</b> | <b>Television</b> | <b>Web</b> | <b>Total</b> |
| La Vaguada                | 376.783      | 224.367      | 1.309.587         | 1.455.441  | 3.366.178    |
| Parquesur                 |              |              | 901.350           | 466.629    | 1.367.979    |
| Plenilunio                |              |              | 45.150            | 648.132    | 693.282      |
| Príncipe Pío              |              |              | 189.075           | 517.284    | 706.359      |

**Source:** Own elaboration (2024).

#### 4.4. Statistical analysis

To observe the relationship of the components to each other and to the media impact, we use two statistical techniques.

(a) On an exploratory basis, a principal component analysis (PCA) of Pearson's correlations. This allows us to visualize the correlations between the components.

(b) From the results of the CPA, we perform a Linear Multivariate Regression on the three components that generate the most variability. The objective is to determine which components have the greatest impact on media impact.

## 5. Results

The results on the principal component analysis (PCA) show, as expected from the literature, that there is a positive and strong correlation between the components of content and format. However, the correlation between the organisation's components, and of these with the format and content components is weaker.

The eigenvalues for the principal component analysis (PCA) reflect the quality of the projection from the N-dimensional initial table to a lower number of dimensions. The first eigenvalue represents 78% of the total variability. The cumulative inertia for the first two axes represents 92% of the initial variability.

In the analysis we observe the number of news items per shopping centre and the media in which they have been published. The number of news items related to LA VAGUADA (89) almost tripled those obtained by the PARQUESUR shopping centre (32), the second one with the greatest impact in the same period. LA VAGUADA differed not only in the number of publications but also in the type of media in which the communication appeared (54% of the total news on television and the only one that appeared in press and radio) and therefore in the Information Value obtained (Table 6). PRÍNCIPE PÍO, with lower values of content and format than the rest of the shopping centres, nevertheless has a greater impact on the number of news items (29 PRÍNCIPE PÍO and 19 PLENILUNIO). When analysing its Informative Value, we see that this is equivalent to that of PLENILUNIO, which with fewer appearances has a similar Informative Value (both in the surroundings of 700.000 euros, very far from LA VAGUADA with more than 3 million euros).

With the information extracted from the PCA, we run a first Linear Multivariate Regression with the 8 components that generate more variability in the Informative Value: Behaviour (Content), Testimonials, Images, Congruent, Participation (Format), Predisposition, Speed, Relationship (Organisation). The value of the coefficients standardized of the last 5 components is zero. We apply then a Linear Multivariate Regression of the model on the three components with the highest variability (Behaviour, Testimonials and Images) on the dependent component Informative Value (Table 6). The results show that these components explain 57% of the Informative Value ( $R^2$  57.4%). The components Behaviour and Images have a significant relative influence on the Information Value.

The results on the principal component analysis (PCA) show, as expected from the literature, that there is a positive and strong correlation between the components of content and format. However, the correlation between the organisation's components, and of these with the format and content components is weaker.

## 6. Discussion and conclusions

During the COVID-19 pandemic, the shopping centres needed the media to improve their visibility, but the media were completely focused on reporting on the pandemic.

This work wants to contribute to the business risk communication literature by providing a conceptual and managerial overview of the components generating media impact in pandemic. We document the characteristics of communication in times of health crisis.

Previous research analyses the components of content, format and organisation in separate studies. In this work, we analyse for the first time, how these components relate to each other. Also, which ones have the greatest influence to get business communication into the news media. To measure it, we have (1) valued the content and format of 164 news from four shopping centres by creating an *ad hoc* scale, (2) valued the shopping centres in their role as a journalistic source with a panel of experts, (3) valued each of the news items economically with an informative value index, (4) analysed the relations between the communication components and the of the news items.

The results of the study show that, to enhance shopping centre media visibility during health crisis, the starting point will be to deliver relevant, intuitive content that generates learning and security, and to do so in a format that details instructions clearly. But it is also necessary to have previously worked on building credibility and brand awareness.

To stand out from the competition and make a difference, businesses need:

(1) To maintain a good relationship with the media over the time. During health crisis, journalist source selection relays on topics that were previously known: the predisposition and speed of the company in attending journalist's demands.

(2) To influence people's behaviour and get them to participate through the content and its format. Testimonials and images are complementary aids within the communication that make the difference to get in the media. These three components of the business communication (influencing people's behaviour and the use of images and testimonials) have the greatest influence during health crisis on the informative value of communication according to the results of this study.

In this research we have seen how communication in which clear behavioural instructions were given within the leisure context of a shopping centre and using complements beyond text such as images and testimonials, was clearly more successful in media. Specifically, LA VAGUADA, which was the only centre that worked on all three groups of components in a homogeneous way, obtained 51% of total media attention (100% from the press and radio and 70% from television) and 55% of the informative value.

At times when news media are focused on issues such as a health crisis, organisations have less room in the media. The aim of this work is to be a support point for communication and public relations managers who are going to define a communication strategy in times of health crisis.

## **7. Limitations and future lines of research**

The empirical study has focused on the COVID-19 pandemic. Although from a behavioural point of view the management of different diseases may have similar characteristics, there may be variations that will also affect communication. Likewise, the study was conducted in Spain. Although we believe that the results can be extrapolated to other countries, the different way in which people, depending on their culture, deal with crises, affects the communication styles of companies and media coverage. In order to validate the results, it would be important to carry out the study in other countries.

Finally, the empirical study is focused on communication from shopping centres. It would be interesting to validate the results in other sectors.

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## AUTHOR CONTRIBUTIONS, FUNDING AND ACKNOWLEDGEMENTS

**Funding:** This research did not receive external funding.

**Acknowledgements:** This work has been supported by the Madrid Government (Comunidad de Madrid-Spain) under the Multiannual Agreement with Universidad Complutense de Madrid in the line Excellence Programme for university teaching staff, in the context of the V PRICIT (Regional Programme of Research and Technological Innovation).

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