Public Relations and Communication in Natural Disasters: The Case of the Earthquake of September 19, 2017 in Mexico

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Abstract
The writing is about public relations and natural disasters. In particular, it describes and analyzes the role that public relations and communication played in the earthquake of September 19, 2017 in Mexico. In addition, the different ways in which public relations and communication are presented in the face of a natural disaster are described. It is concluded that public relations are very useful in the face of a disaster, helping to better face and compensate for the damage and challenges that such disasters generate to society.

Keywords: Public relations, natural disasters, earthquake, Mexico, September 19, 2017.

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1. Introduction
Natural disasters have accompanied the human being throughout its history (Ayala-Carcedo, 1993). In this way, over the centuries, hurricanes, tornadoes, earthquakes, frosts, droughts and tsunamis, among others, have happened as real calamities, causing severe damage to their economy and affecting their quality and standard of living (Buj, 1997).

In fact, without fear of being wrong, it can be said that the history of humanity has been the history of how man has faced these disasters (Ayala-Carcedo, 2002), creating different mechanisms, strategies and technologies to face them in a better way, trying to reduce their pernicious effects (Olivera 1988).

Unfortunately, natural disasters will always be present (Beck, 1998) and will cause a series of damage and consequences for humanity in the future (González, 2015). Today, for example, global warming is causing climate changes (Erickson, 1992) and serious natural disasters, which have an impact not only on the economies of nations (Torres, 2004) and the people who inhabit them, but also on the systems of coexistence and social interrelation.

In fact, it is to be expected that the natural disasters of the future will be of greater magnitude and intensity, causing major damage to the economy of nations and people, which makes it necessary to study and analyze these phenomena from different disciplines to mitigate their negative consequences.

One of the disciplines that contribute as strategic means to manage communication and the relationship with those affected, so that the damage generated by natural disasters can, in a certain way, mitigate in a better way, are the public relations, which are generally present, both in the prevention stage as in the recovery and reconstruction activities of the damage generated.

In this article, it is described the different ways of how public relations and communication are present in the face of a natural disaster and also it’s discussed the role that public relations perform in natural disasters. Additionally, it points out how public relations can help and be useful to mitigate the negative consequences generated by natural disasters and perform the repair of the damage.

The methodology used, the case study, analyzing, in particular, the case of the earthquake that occurred on September 19 of 2017 in Mexico. The case study is defined by Child (2011) as the research tool that is used in situations in which it is desired to study basic characteristics, the current situation and interactions with the environment of one or a few units such as individuals, groups, institutions or communities.

Furthermore, an opinion survey was held from October 2 to 6 of 2017 in five entities of the republic [1] to know the opinion of citizens about the use of public relations and communication from this natural disaster by the main actors involved in the same [2].
The objective of the research was to recover the different ways in which public relations and communication are present during a natural disaster and the different ways in which public relations can help mitigate the crisis generated by the disaster and support the reconstruction process.

2. Natural disasters

The word disaster comes from the Latin dis (separation) and astro (star), referring to abnormal astrological phenomena, which the ancient romans took as an omen of the coming of great evils [3]. In this regard, a natural disaster is an abnormal phenomenon of nature that generates certain damage and losses for the human beings (Olcina et al, 2002).

In this way, natural disasters can be conceptualized as those natural phenomena that occur with certain frequency on the face of the earth and that generate diverse damage to humanity. These damage can range from simple road disorders to the loss of lives and substantial material and economic goods (Arranz et al, 2000).

Natural disasters can be classified into four different types, according to the nature of the disaster and the cause that generates it (Zamora, 2002). These are hydrological, meteorological, geophysical and biological disasters. Hydrological disasters are caused by water, generally due to its excesses, such as floods, tsunamis, stormy waves and phenomena known as "sea bottom", among others.

Meteorological disasters are usually caused by disturbances in climate that produce, for example, cyclones, typhoons, cold or warm fronts (heat waves or cold), known as child phenomena, droughts, tornadoes, storms tropical, hurricanes, snowfalls, hail and flooding due to excessive rainfall, among others. Geophysical disasters come from land or space, such as solar storms, earthquakes, avalanches, landslides, volcanic eruptions and subsidence of land, among others. Finally, biological disasters are those generated by the actions of some living beings, with the exception of man [4], such as pests, infections and epidemics, as in the case of swine fever and bird flu, to name a few.

Natural disasters cause a series of consequences and damage to humanity (Dueñas, 2002), as well as a series of material and economic losses (Torres, 2004). Among the most important damage are the death of human beings, the mutilation of their bodies, the affectation of their mental health, the famines, the loss of houses, the destruction of public and private infrastructure, the loss of crops, livestock and birds and, above all, the impact on businesses and productive companies (Talavera, 2005).

In this regard, natural disasters are unusual, surprised and unexpected alterations that, as a common characteristic, generate considerable human and material losses (Calvo, 2001), as well as they produce other kind of consequences, such as political instability and inter-party alternation. [5]

3. The concept of public relations
Public relations have been present throughout the history of mankind, since man is man. They have manifested themselves as part of social coexistence, in the exercise of leadership, in the processes of exchange and commercialization of goods and services and, in general, in the processes of interpersonal, social and organizational communication.

It is considered that the tribal societies used it in order to promote respect for the authority of the chief and to unite the tribe in front of the danger represented by rival tribes. Today, public relations are present in every act of the human being and are used in the processes of personal and institutional communication, in order to create or modify perceptions, attitudes, beliefs and behaviors of people and thus influence and gain acceptance and understanding between the involved parts.

On the other hand, public relations have been conceptualized in different ways. For Harlow (1976) public relations is a clear function of the direction that helps to establish and maintain lines of mutual communication, understanding, acceptance and cooperation between an organization.

The Public Relations Society of America (PRSA) in 1982, coined the following definition of public relations: "the activities that help an organization and its public to mutually adapt each other." In 2012, updated this definition to be as follows "Public relations consist of the strategic communication process that builds mutually beneficial relationships between organizations and their publics" [6].

According to Debora Weinstein (2013), public relations are "the art and science of sharing genuine, credible and relevant news that maintains and protects brand acceptance, knowledge, reputation and sales when it is appropriate. Public relations creates measurable conversations, based on events, events and activities designed to generate approvals and hearings from third parties" [7].

For Antonio Castillo (2010) public relations is the science that is responsible for managing communications between an organization and society with the aim of build, manage and maintain its positive image.

Finally, Nancy Tamosaitis notes that "public relations consists in define and communicate the narrative of a company to provide clarity in the perception of the market that is sought to reach" [8].

In this research, public relations will be understood as the planned and strategic process that occurs at a personal or organizational level in order to create or modify perceptions, attitudes, beliefs and behaviors of people (specific audiences) and thus influence and gain acceptance and understanding between the parties involved in the private, public (governmental) and social sphere.

4. Public relations and natural disasters
Public relations are present in all acts of the human being as a social being. That is to say, by its gregarious nature and by living in society, the human being is related to others. This relationship, when it is done in a planned way and seeking to achieve certain strategic objectives, then constitutes what has been called here as public relations. These can be given at individual or at organizational level.

Public relations are always present in different natural disasters. On the one hand, they are present in the different actions of a preventive nature, either in communication campaigns aimed to build a preventive culture to better cope with disasters and being present, in different forms and ways, in the actions of compensation of damage and affectations to people and in the reconstruction actions of the affected infrastructure (houses, buildings, roads, etc.).

In preventive actions, public relations are also present in the simulations of earthquake evacuation and in the information actions that are carried out to build a culture of disaster prevention; in the alerts that are made to evacuate people before the eminent arrival of hurricanes and thus reduce the damage caused by them; in the informative campaigns that are carried out to avoid forest fires and take care of the environment; and in general, in the various civil protection actions that are promoted to create a culture of prevention and thus avoid major damage generated by natural disasters.

During the disaster, public relations are present in the form of communication in crisis, informing with opportunity about the actions and measures promoted by the government to generate tranquility and security for the affected population, as well as to guide the relatives and friends of the victims.

In the post-disaster phase, public relations are present in the communication activities on the different actions undertaken to compensate the damage; in the establishment of shelters for the victims; in the rescue actions of victims; in ceremonies to honor "the fallen"; in intergovernmental relations to receive support and solidarity from other governments; in communication campaigns to promote the donation of food, medicines, tools and household materials by society; in the actions of donation and collection of support by companies and institutions in solidarity with the victims; in communication plans to deal with crisis and the social discontent usually generated by disasters; in communication actions to inform about the diverse services and supports to those affected by the disasters; and finally, in the short, medium or long term actions that are promoted by the government, civil society, the media, businessmen and the victims to try to return to normal and continue with the daily life.

5. The case of the earthquake of September 19 of 2017 in Mexico

Public relations were present in the recent natural disasters that affected Mexico. In particular, they were used as a result of the earthquake of 7.1 on the Richter scale that affected several states of the republic on September 19 of 2017 [9] and that generated more than 400 deaths, hundreds of injuries and substantial material losses[10]. Public relations were present in its modality of preventive actions and restorative actions.
In preventive matters, public relations were present in 1) evacuation drills of buildings, factories and school sites that were held on September 19 from 11 am throughout the national territory, as part of the Day National Civil Protection; 2) in the different events of the governments at municipal, state and national levels to involve the majority of companies, institutions and society as a whole, to form the culture of prevention and proper behavior during earthquakes; 3) there were also present in social networks with messages, communications, instructions and educational materials to inform about the guidelines to follow in case of earthquakes and to be less vulnerable to the negative effects of them; 4) in the construction of social consensus for its approval and in the communication of codes and regulations anti-seismic of construction and, in its opportunity, in the protests and citizen complaints of violation and breach of said norms.

However, public relations were present mainly in the post-seismic stage through different actions of saving survivors and rescuing bodies, helping the victims and reconstructing the damaged infrastructure.

In this way, the management of public relations allowed or generated greater and better communication in the actions of the four main actors present in a natural disaster: 1) the government [11]; 2) the media; 3) the victims and 4) the citizens in general.

The actions that the government promoted from the earthquakes and in which the public relations played a strategic role were the following: in the information about the magnitude and scope of the telluric movement; in the installation and management of shelters to take care of victims; in the installation and management of collection centers for various material supports for the victims; in the various services to assist those affected, such as health, water and electricity services; in the reception of rescue brigades and various support from other entities of the republic and governments from solidarity countries[12]; in the different instruments (web pages, telephone lines and social networks), events (press conferences, press releases, bulletins, interviews, statements, etc.) and media (official communication media) to communicate with the population and cast special releases on the state of the issue and the recommended actions to follow; and in general, public relations were present in the different plans and programs of the government to deal with the disaster in the short, medium and long term [13].

The actions that the media promoted in the emergency situation and in which public relations in the form of communication management were the following: coverage of the magnitude of the disaster and the different rescue actions; coverage of citizen participation in search labors of survivors and bodies in collapsed houses and buildings; information on foreign delegations and civil protection bodies specialized in the rescue of survivors and bodies of victims, as well as coverage of solidarity and the various supports granted; coverage of press conferences and releases from the federal government and from the different state and municipal governments; heroic actions of solidarity citizens with those affected in the places of the disaster; coverage of the actions of trained dogs for the
rescues of those affected by earthquakes; coverage of citizen complaints about negligence, corruption and abuse in the use and destination of the various supports for the victims: information about shelters and government services and of foundations and companies in support of the victims; and in general, coverage of the different events related to earthquakes and reconstruction actions promoted by different governments, companies and civil society.

The actions that the victims promoted during the earthquake and in which the public relations were present were the following: realization of diverse events to organize and to manage diverse supports coming from governmental dependencies; organization of press conferences and various informative events about their needs and the characteristics of the requested supports; lobbying actions in front of governmental instances to manage supports for the reconstruction and solution of petitions and immediate demands to overcome the contingency generated by the earthquakes; press conferences to report about problems and denounce abuses in the reception and distribution of citizen support for the victims (in the form of complaint and social protest); organization of different events to honor the "fallen;" and in general, public relations were present in the different actions of support management, in the organization of the victims and in the communication actions through social networks on the progress of the reconstruction and on the concrete problems that they faced.

The actions that the citizenship promoted as a result of the earthquake and in which the public relations were present were the following: informative actions through social networks about the magnitude of the earthquake and the catastrophic damage generated by it; information on the location of shelters and food collection centers for the victims; in the information about the different attention services for the victims; in denunciations in social networks about the abuses and misuse of citizen donations for reconstruction; in recognition of some pet (dog Frida) or some person (Eduardo Zarate, support in wheelchairs) or companies for their activities in favor of the victims [14] or in protest on the lack of solidarity of the same ones.

That is to say, public relations were manifested in the disaster of September 19 of 2017 mainly through social networks in the form of public denunciation of abuses, criminal actions and mismanagement of the support for the victims; in the form of social protest for the inadequacies, negligence and corruption observed in the reconstruction process; in the form of recognition of the actions of groups, companies and people in solidarity with those affected by the disaster; and in the form of pressure for the political parties of Mexico to allocate the resources that they receive from the public treasury for the electoral campaigns for the reconstruction of the country, among others.

In summary, public relations were present in this natural disaster through the strategic management of communication; in the strategy to face the crisis; in the labors of rescue and reconstruction of the damages; in intergovernmental relations to receive and to thank national and world solidarity; in the various formal events around the sepulcher of the dead and support for the victims, their families, the victims and the compensation plans for damages; in the actions of organization of the affected and solutions management, and in general, in the different events, protocols and communications that were
made to face the crisis and compensate the damages generated by the earthquake of September 19 of 2017.

In this sense, it can be said that an appropriate and timely process of professional intervention in public relations during a natural disaster corresponds to a better process of recovery among the affected population and reconstruction of the damage and pernicious effects generated by the disaster. In other words, with the implementation of a public relations intervention plan in a timely and professional manner, it is possible to generate the social consensus and the necessary cooperation among the main stakeholders in a natural disaster to promote a better recovery process and reconstruction of the damages generated by it.

6. Results: Description and analysis

In order to know the opinion of citizens of the main states that were affected by the earthquake of September 19 of 2017, about the performance of the four main actors involved in this natural disaster, a survey was conducted between 1 and October 6 of 2017 and these were the results:

a. Regarding the first question, whether or not they knew before the earthquake information about the "national day of civil protection" and the preventive measures that should be carried out in the event of an earthquake, 75 percent said yes, 24 answered that no and 1 percent did not answer the question.

b. Regarding the question about whether or not, he/she participated in the evacuation drills in the event of an earthquake that took place on September 19, 2017 as part of the "National Day of Civil Protection," at 11 am, 35 percent said yes, 65 percent of the interviewees said no.

c. Regarding the questioning, about which of the actors used public relations best to approach the negative consequences of the disaster, 30 percent of the interviewees pointed out that the government, 25 percent answered that citizenship, 32 percent indicated that the media and 13 percent said that those who used them the best were the affected.

d. Regarding the questions about in who they believed more about the different information actions on disasters, 11 percent said that to the government; 15 percent to the media, 45 percent to those affected and the remaining 30 percent to citizens in general.

e. Regarding the questioning, about which of the actors involved in the disaster generates the most confidence for the use of the donated resources for the reconstruction, 5 percent indicated that the government, 12 percent to the media, the 57 to the victims and 26 percent to the organized citizens.
f. Regarding the question about who communicated better in the face of the situation arising from the natural disaster, 16 percent said that the government, 39 percent answered that the media, 34 percent said that civil society (through networks) and 11 percent that the affected by the earthquake.

g. Finally, on the question of whether it considered that it should be better communicated from the government to reinforce the construction among the population of a culture of prevention for future natural disasters, 86 percent said yes, 14 percent did not.

As it can be seen from these results, it is important to intensify the works in matter of prevention of natural disasters, in such a way that the damage generated by earthquakes are minor. In other words, it is necessary to build a culture of prevention that allow us to safeguard against the negative effects of this kind of disaster and to reduce deaths and damage to society. A strategic plan for public relations and communication on the matter can be an impulse very pertinent to avoid future major damage in the presence of a new disaster.

Likewise, there is still necessary a major professionalization in matters of public relations and communication to public officer at all levels of government, with the goal that they can act in a timely and professional manner in front of a disaster situation and can communicate adequately with the people.

Furthermore, the credibility and trust in the government by the respondents was very low, while the credibility in the members of civil society and those affected was higher. Also, traditional media continue to generate low credibility and social trust.

Finally, the survey shows that the one who communicated the best about the earthquake, in the first place were the media and then civil society and those who did not communicate properly were the government and also the victims. In the same sense, the government should improve its public relations and communication strategies to continue building in society the culture of prevention to face in a better way future natural disasters.

7. In conclusion

Public relations is a social science responsible for the study of the processes of relation and interrelation, in its different forms and purposes, among people, groups and institutions that occur in a given time and space and, usually, seek as an objective to initiate, maintain and strengthen ties with a specific purpose (commercial, political, social, etc.).

The origin of public relations is given from the arising of man, as a social entity, which ones that became entrenched with the birth of the nation state and have experienced a very important development in recent years, under the development of the capitalist system.
Nowadays, public relations are applied both in the private sector and in business as well as in the public and government sphere. In the private sphere, public relations help organizations to communicate and establish exchange relationships (commercial) mainly with their customers and suppliers; as well as to build or improve brand positioning and improve the processes of image management and communication with its customers. In the public and government sphere, public relations help to shape social perceptions and generate reputation, credibility and, above all, citizens’ trust in their leaders and leaders; as well as to build legitimacy of public institutions and to strengthen leaderships. An important area in the use of public relations is the management of crisis communication, which allows a more adequate management of the crisis, informing the population in a timely and truthful manner, at the moment and/or shortly after generate the disaster.

On the other hand, natural disasters have always been present in the orb and have accompanied man throughout his history. However, in recent years, natural disasters have increased their devastating potential and have occurred more frequently.

In cases of natural disasters, the public relations that are present or are used, correspond to the public or governmental sphere, as well as to the private sphere, since there are citizens, companies and private organizations that actively participate in the support labors to the victims and reconstruction of the damage generated by natural disasters [15]. This type of companies generally seek to strengthen their brand and generate greater social legitimacy and acceptance of their customers.

In this meaning, public relations play a very important strategic role before, during and after natural disasters, since they help in the actions of prevention, contingency and recovery of the various damage generated. Also, public relations help in different ways and are very useful in front of natural disasters to compensate for damage, build community and "return to normality" to society as a whole.

Public relations intervention plan makes the process of reconstruction and recovery of a natural disaster better, faster and expedited and that generates less resistance or opposition from some social sectors, since through public relations it is built an adequate consensus, understanding and cooperation between the parties involved, facilitating the recovery process and making it less painful for those affected and less complicated for the rulers.

In fact, without fear of misunderstanding, it can be said that public relations have become an indispensable social science that is strategic and of special help to successfully face the challenges that natural disasters represent and that help to re-find man with himself in form of solidarity, cooperation and inter-human relationship.

In the case of the earthquake of September 17 of 2017 in Mexico, public relations and communication played a very important role in the form of organization and communication for the rescue of the victims, the support to the victims and in the reconstruction of damaged infrastructure. Public relations
were present during this earthquake as part of the process of communication in crisis by the rulers, to inform about the rescue and support labors to the victims and even in the form of discontent and social protest by some sectors of the population [16].

In particular, public relations were present in the actions of the four main actors present in a natural disaster: The government, the media, the victims and citizens in general. Through public relations and communication, perceptions and attitudes of millions of Mexicans were modified in the process of managing the rescue of injured and corpses, as well as in the process of rebuilding the country's infrastructure and economy.

However, as was shown in the results of the survey held after the earthquake, there is still a need for greater professionalization of public officer in Mexico in terms of the use of public relations that helps to improve the levels of trust and social credibility of the governments. Likewise, it is important to continue promoting actions in the immediate future, in which public relations play a strategic role, to build a culture of prevention and solid civil protection and thus be able to face, in a better way, the pernicious effects generated by natural disasters.

Finally, through the different actions of these four actors, mainly civil society, it was projected to the world an image of a solidarity Mexico, united and dedicated to the best causes, with the capacity to rebuild as a country and advance despite the havoc and damage caused by the earthquake of September 19 of 2017.

8. Notes.

1 There were 821 useful questionnaires with a statistical reliability of 95% and an error + _ of 4.8%. The type of sampling was random and the survey technique was in situ in the states of Mexico (250), Puebla (117), Morelos (117), Guerrero (117) and Mexico City (220).

2 The main actors involved in a natural disaster are the government (in their different levels and through different institutions), the traditional mass media of communication (television, radio, newspapers and magazines), the affected by earthquakes (victims) and the civil society in general.


4 Men can generate conditions such as the destruction of the environment and the high pollution that can result in future natural disasters. In this regard, human activity is considered a contributor to this type of abnormal phenomena. However, disasters caused by humans are not considered as natural.

5 Any natural disaster, poorly managed, can lead to political instability and this can last for years after the disaster, since in a certain way, a cyclical relationship can be established between political
instability and natural disasters. In fact, it is very common for a natural disaster to provoke political imbalances, where bureaucracy and governmental corruption generally prevent the necessary aid resources from arriving, in time and quantity, which maximizes the impact of the disaster and increases social dissatisfaction.


7 See What are public relations? https://www.merca20.com/que-son-las-relaciones-publicas-4-definiciones/ Published on December 19, 2013. Date of consult: September 27, 2017.

8 See What are public relations? https://www.merca20.com/que-son-las-relaciones-publicas-4-definiciones/ Published on December 19, 2013. Date of consult: September 27, 2017.

9 According to data from the federal government, the earthquake affected 12 million people and 400 municipalities in the states of Morelos, the State of Mexico, Mexico City, Guerrero, Puebla, Chiapas, Veracruz, Oaxaca and Tlaxcala (Source: Revista Expansión, http://expansion.mx/nacional/2017/09/19/sismo-en-mexico-deja-decenas-de-muertos, date of consultation: October 23, 2017).

10 It is considered that at least 1500 historical monuments were damaged, thousands of businesses were affected, 2,224 schools and, in general, 2.6 million children were considered directly affected. It is estimated that 180,731 homes suffered damage (Source: Revista Expansión, http://expansion.mx/nacional/2017/09/19/sismo-en-mexico-deja-decenas-de-muertos, query date: 23 October 2017).

11 The government is present in natural disasters through the civil protection units, the fire department, the national army, the marine secretariat, public hospitals and, in general, through public agencies, their actions and assistance programs and not only through its politicians.

12 Twenty-five governments of the same number of countries supported the immediate rescue chores, sending aid and/or support in the reconstruction of earthquake damage: among the countries stood out, Argentina, Chile, the United States of America, Germany, China, Guatemala, Canada, Venezuela, El Salvador, Peru, Costa Rica, Israel, Russia, Ecuador, Japan, The Vatican, Taiwan, Switzerland, Honduras, Panama, European Union, United Arab Emirates and Spain, among others.

13 In this natural disaster, the participation of the government was more reactive than pro-active, while the civil society was more active then passive.
14 Disasters are valuable opportunities for many companies that with their solidarity actions, build or strengthen their brand, gaining credibility and trust among their customers.

15 Some of the brands that showed solidarity with the victims of the earthquake on September 19, 2017 were: Samsung Electronics, Ford, AT & T, Wallmart, Google, Facebook, Unefon, Amazon, Homedepot, Model, Liverpool and Petco, among others (See, Paulina Sánchez, Brands of solidarity with Mexico after the earthquake, http://harmonia.la/entorno/marcas_solidarias_con_mexico_tras_el_sismo Date of consultation: October 23, 2017.

16 The false or biased information that circulated, such as rumours in social networks, about the misuse of the various supports for victims, as well as the various messages and releases from anonymous people whose objective is to misinform the population to generate protest and the rejection of the population itself towards its rulers, also required to be countered by a public relations plan of the government that accurately reports on the different actions that are promoted to support the victims and to promote the reconstruction of the urban infrastructure destroyed by the disaster. In other words, misinformation that discredits and inhibits solidarity and social participation must be combated with accurate and timely information, through a strategic plan for public relations and communication.

9. Bibliographic references


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