

Analysis of the Variables that Affect China's Presence in International News in the Context of Coronavirus

Hanns de la Fuente-Mella¹, Claudio Elórtegui Gómez²,
and Ignacio Milies Valdivia²

Escuela de Comercio, Facultad de Ciencias Económicas y Administrativas, Pontificia Universidad Católica de Valparaíso, Valparaíso, Chile

²Escuela de Periodismo, Facultad de Ciencias Económicas y Administrativas Pontificia Universidad Católica de Valparaíso Valparaíso, Chile

ABSTRACT

Western media coverage of Covid19 had a focus of special interest in China during 2020, due to globalization and the pandemic nature of the crisis. The news agendas deepened and debated the responsibility of the Asian power in the spread of the disease. However, China's international attitude and diplomatic actions based on donations of medical supplies and vaccine development also began to spread. The research uses econometric models in linear probability to determine which are the main variables that explain Chinese public diplomacy in the news of 24 countries. The investigation shows that the western media give China a high level of interference in the origin of the pandemic. However, the results indicate that certain features of Chinese public diplomacy entered significantly in the news that mentioned the Asian giant, spreading a type of international leadership that disputes positions with the global hegemony of the United States.

Keywords: China, Public diplomacy, Covid-19, Data science, Econometric modeling

INTRODUCTION

The information produced in the media creates a strategic place that is especially relevant during times of crisis and instability (Riorda et al., 2020), as has been proven during the Covid-19 pandemic. With digital characteristics and inserted in a global communication ecosystem (Castells et al., 2012), the news flow gains dynamic roles in building international agendas that may influence the behaviors and decisions of politicians, businesspeople, and citizens.

Following a long theoretical tradition and considering the new types of intersections and interactions in the global system, public diplomacy places importance on a nation's communication efforts that wishes to establish relations with citizens of other countries (Noya, 2010) and does so by producing messages and information intended for those target audiences. Thereby, they apply a massive or selective persuasion using different strategic actions to improve commercial, political, or cultural relations (Hayden, 2012).

As a result, the information produced by the media in countries that host public diplomacy gains a special significance, since they can transmit the messages of the external country interested in publishing them and making them known in the public opinion of the hosting countries, through the news and media of the local information industries (Melissen, 2005).

In the pandemic context, these mediations intensified throughout different geopolitical realities, disputing the versions that were given to the international community, due to the complex internal situations experienced by numerous governments and actors who were competing to receive recognition for their health policies or the credibility of their vaccines (Casero-Ripollés, 2020).

It was clear that the origin of the coronavirus and China's health management over its population since December 2019 attracted the world's public opinion because of the potential risks that the illness could carry on a global scale. Questions also arose regarding the transparency with which the Chinese regime was delivering the information to international agencies.

However, in the course of the following months, Xi Jinping's administration carefully evaluated a damage control campaign and drove China to adopt a public diplomacy towards different nations, causing an international debate. For instance, media reports from various cultures and nations began to use terms such as a "mask," "wolf warrior," or "vaccine" diplomacy when referring to China's approach.

The following study aims to explain the presence of China's information in the digital media of 24 western countries, to determine China's type of public diplomacy that was present in the news during the first semester of 2020. Two research questions were formulated to measure the variables:

- Q1: Are there positions or news sources that blame China for the origin of the pandemic?
- Q2: Do the news sources include any message, statement or mention of China supporting western populations or governments during the Covid-19 crisis?

Q1 intends to determine the variables that would best explain the attribution of responsibilities to China during the pandemic crisis, by collecting and analyzing news from western media sources, while Q2 defines the variables that would best explain the inclusion of discourses of Chinese collaboration with western countries where the news is produced.

Therefore, we're interested in evaluating in which ways China's diplomatic efforts were able or not to penetrate the digital information of western countries and the variables that are significant to determine this, on the basis that China had not received a favorable media coverage at the start of the pandemic (Wen et al., 2019). Countries are sensitive to these dynamics, especially those seeking to establish themselves as global leaders. When governments are perceived as manipulative or the international community stops trusting these authorities, their credibility is destroyed (Nye, 2011).

This kind of study can analyze whether the information obtained from a set of western media platforms increases narratives that attribute responsibilities,

or if there could be nuances or other roles that have not been detected when looking at China's news narrative, beyond the tendency to blame or show suspicion, as some Chinese actors have affirmed.

METHODOLOGY

To determine the factors that explain China's presence in the news, a binary logistic regression model was fitted to the response, to estimate the probabilities of two possible outcomes (Coughenour et al., 2016). Binary logistic regression is used to estimate categorical variables or the probability of category membership on a dependent variable based on multiple independent variables (Clark et al., 2019; Chahuan et al., 2021). Binary logistic regression uses maximum likelihood estimation to evaluate the probability of dichotomous membership. Thus, this type of model allows us to characterize the probability of a respondent's decision of a particular binary discrete choice, conditional on the values of the explanatory variables (Coughenour et al., 2019). The distribution functions that characterize the explanatory variables are often nonlinear. Thus, once the binary regression model is created, the parameters are used to make predictions about the probability of an event occurring compared to the reference category.

The sample has 541 news collected from western media websites, specifically from European and Latin American countries, and published during the first semester of 2020. These pieces of news must fulfill mentioning China in some way and form part of the segments of national or international politics, or the economic agenda. Opeds or editorial notes were not included in the study, favoring the reporting structure instead. The media outlets had to fulfill the condition of being accessible to the local population, and present a traditional type of reporting, relative prestige and popularity in their countries of origin. To avoid natural biases in relation to the existing tensions, North American media outlets were not included.

RESULTS

To fulfill the study's objective, a binary logistic regression model was fitted to estimate China's presence in the news. Two models were developed to answer the questions: Are there positions or news sources that blame China for the origin of the pandemic? (model 1) and, Do the news sources include any message, statement or mention of China supporting western populations or governments during the Covid-19 crisis? (model 2) In both cases, a linear model was first run on the responses as a function of the predictors to ensure that there were no problems with multicollinearity; only predictors with variance inflation factors (VIF) < 2 were included in these models (Paz et al., 2016).

Regarding the fitted model information, the omnibus chi-squared ratio model test results were 326.341 and 210.129 (p -value = 0.000), respectively, indicating that the variables incorporated in both models are good predictors. Acceptable values were also obtained for the pseudo R-squared (Cox and Snell: 0.454; 0.323, Nagelkerke: 0.621; 0.555, respectively). The power

of our binary logistic models were suitable because they correctly classified 84.4% and 90.3% of the known observations and can be expected to project future estimates.

CONCLUSION

The study and its respective methodological application have helped clarify a series of “myths” in terms of how the western media have portrayed China during the Covid crisis. Although it has been proven that the analyzed news sources make China responsible for the origin and expansion of the coronavirus, China is far from being a power stigmatized by these media reports.

We argue that favorable aspects associating China with strengths and qualities were detected in news narratives because China’s public diplomacy had the capacity to enter the western news with its “strength-ideas”, by actively producing information which drew media attention in several countries during the pandemic crisis. For example, the diplomatic actions deployed in different continental regions (Europe, North America, Central America or South America) successfully became newsworthy events in these areas. Despite the cultural differences in the media sources that were analyzed, China’s representation was identified as a trend in these sources.

The models produced in this research help us deduce that China combined a “soft power” with harder discursive positions to confront its interrogators, giving rise to the “wolf warrior diplomacy,” which was developed effectively in the western media. In other words, we consider that there was a media construction of China’s image strategically cultivated in the news, drawing on favorable aspects that they probably had been working on for global positioning in recent years (Sun, 2015; Zhang, 2008). At the same time, they also faced a strong criticism that some western platforms made through their headlines, while adding adjectives to the Covid crisis that would harm China’s image (Wen et al., 2019; Chahuan et al., 2021; De la Fuente-Mella, et al., 2021). Future research will continue studying the features of China’s current diplomacy and its influence in the news, to see whether the “wolf warrior” style remains, or other modalities emerge in face of potential crises. Ongoing studies of this sort will help analyze China’s relevance in western news and its role as a power disputing America’s hegemony (Vallina et al., 2020; De la Fuente-Mella, et al., 2020).

REFERENCES

- Casero-Ripollés, A. “Impact of Covid-19 on the media system. Communicative and democratic consequences of news consumption during the outbreak”. *El profesional de la información*, 2020, v. 29, n. 2, e290223. <https://doi.org/10.3145/epi.2020.mar.23>
- Castells, M. *Comunicación y Poder*; Siglo Veintiuno Editores: Ciudad de México, México, 2012.
- Chahuan, K., Rubilar, R. and De la Fuente-Mella, H. “Market openness and its relationship to the failure of financial markets due to COVID-19”. *Sustainability*, 2021, Vol. 13, 10964, doi.org/10.3390/su131910964

- Chahuan, K., Rubilar, R.; De la Fuente-Mella, H. and Leiva, V. "Predictive modeling for pandemic COVID-19 and its effects on the global financial crisis". *Entropy*, 2021, Vol. 23, 100, doi.org/10.3390/e23010100
- Clark, S.; Coughenour, C.; Bumgarner, K.; De la Fuente-Mella, H.; Reynolds, C. and Abelar, J. "The impact of pedestrian crossing flags on driver yielding behavior in Las Vegas, NV". *Sustainability*, 2019, Vol. 11, 4741, 8 pages, doi: 10.3390/su11174741
- Coughenour, C.; Paz, A.; De la Fuente-Mella, H. and Singh, A. "Multinomial logistic regression to estimate and predict perceptions of bicycle and transportation infrastructure in a sprawling metropolitan area". *Journal of Public Health*, 2016, vol. 38, n° 4, pp. e401-e408, doi: 10.1093/pubmed/fdv179
- Coughenour, C.; De la Fuente-Mella, H. and Paz, A. "Analysis of self-reported walking for transit in a sprawling urban metropolitan area in the western U.S.". *Sustainability*, 2019, Vol. 11 (852), 16 pages, doi:10.3390/su11030852
- De la Fuente-Mella, H.; Vallina, A.M. and Solis, R. "Stochastic analysis of the economic growth of OECD countries". *Economic Research-Ekonomiska Istraživanja*, 2020, 33(1), pp. 2189–2202, doi.org/10.1080/1331677X.2019.1685397.
- De la Fuente-Mella, H.; Rubilar, R.; Chahuan, K. and Leiva, V. "Modeling COVID-19 cases statistically and evaluating their effect on OECD economies". *Mathematics*, 2021, Vol. 9, 1558, doi.org/10.3390/math9131558
- Hayden, C. *The rhetoric of soft power. Public diplomacy in global contexts*. London: Lexington Books: London, England, 2012.
- Melissen, J. *The new public diplomacy. Soft Power in International Relations*. Palgrave Macmillan: London, England, 2005.
- Noya, J. *Diplomacia pública para el siglo XXI*. Ariel: Madrid, España, 2010.
- Nye, J. *The Future of Power*. New York: Public Affairs: New York, United States, 2011.
- Paz, A.; De la Fuente-Mella, H.; Singh, A.; Conover, R. and Monteiro, H. "Highway expenditures and associated customer satisfaction: a case study". *Mathematical Problems in Engineering*, 2016, vol. 4630492, 9 pages, doi: 10.1155/2016/4630492
- Riorda, M.; Bentolila, S. *Cualquiera tiene un plan hasta que te pegan en la cara. Aprender de las crisis; Paidós: Buenos Aires, Argentina, 2020.*
- Sun, W. *Slow boat from China: "Public discourses behind the "going global" media policy"*. *International Journal of Cultural Policy*, 2015, 21(4), 400–418.
- Vallina, A.M.; De la Fuente-Mella, H. and Solis, R. "International Trade and Innovation: Delving in Latin American Commerce". *Academia ARLA*, 2020, Vol. 33 No. 3/4, pp. 535–547, doi.org/10.1108/ARLA-07-2020-0174.
- Wen, J., Aston, J., Liu, X., & Ying, T. "Effects of misleading media coverage on public health crisis: A case of the 2019 novel coronavirus outbreak in China. *Anatolia*", 2020, 31(2), 331–336. <https://doi.org/10.1080/13032917.2020.1730621>
- Zhang, X. *China as an emerging soft power: Winning hearts and minds through communicating with foreign publics?* The University of Nottingham, 2008. <http://www.nottingham.ac.uk/cpi/documents/discussion-papers/discussion-paper-35-china-emerging-soft-power.pdf>.