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IMPRINT

Communicating with, through, and as the Recipient. Changing the Rules in Strategic Communication and Journalism

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KEEPING UP THE DIALOG

Understanding the Use of Social Media by German Mobility Companies During the Covid-19 Pandemic

**Gina Flemming, Hanna Jonas, Wibke Kroll, Josephine Michl,
Milo Hannah Tetzl**

Abstract

The theory of crisis communication is usually driven by crises in the environment of corporations or those caused by the corporation itself leading to a loss of reputation and financial fallout. In 2020, the Covid-19 pandemic changed the rules of communication strategies during a crisis. Every actor was directly or indirectly affected by the consequences that arose from the emergence of the virus. It forced corporations to establish new ways of maintaining and strengthening relationships with their stakeholders, for example via social media. This paper aims to compare corporate communications before and during the pandemic regarding the Facebook and Twitter channels of three companies of the strongly inflicted mobility sector. For this purpose, 771 posts of Deutsche Bahn, Flixbus and Lufthansa in 2019 and 2020 were analyzed. The qualitative content analysis emphasized that a crisis, which was not self-inflicted, implies more mutual understanding and comprehensibility for the situation of the respective counterpart. Thus crisis management deals less with damage containment but focuses on the treatment of arising issues (cancellations, hygiene measures, uncertainty etc.). This leads to a more personal and emotional communication and profound dialogs with customers. The paper outlines several key aspects for further research and practice concerning the handling of external crises and the general use of social media platforms to strengthen symmetrical communication.

Keywords: social media, crisis communication, covid-19, dialog communication, mobility

1 Introduction

The Covid-19 pandemic has overlaid all areas of human life. Due to its global scope, daily announcements of partly conflicting information, new regulations and most notably the social uncertainty, the pandemic requires highest attention, being able to seriously affect an organization's performance and reputation (Coombs, 2014, p. 4).

Political measures like travel and contact restrictions as well as behavioral changes pose challenges on most companies, especially those of the transport and mobility sector, for example Deutsche Bahn AG, Deutsche Lufthansa AG, and FlixBus GmbH. Verma and Gustafsson (2020) assume that due to travel restrictions and changes in people's risk perception for foreign travel, Covid-19 will have a long lasting impact on international tourism and could cause, in the short-term view, a potential loss of \$30 billion to \$50 billion regarding global tourism (p. 259).

The sharp decline in their business activities in 2020 comes along with growing challenges in customer relationships. As research activities have already shown, the choice of the communication tool in times of crises has significant effects on reputation, emotionality and interactive communication and is partly more important than the delivered message itself (Liu, Austin & Jin, 2011, p. 348 ; Schultz, Utz & Goeritz, 2011, p. 25). Recently Špoljarić (2021) also showed that recipients call for a more personal tone of voice during crises (p. 27).

In this view, social media is playing different important roles regarding the rapid spread of hazard-information, the instruction of the public on risk-decreasing actions (Ophir, 2018, p. 155), as a relationship-builder (Malecki, Keating & Safdar, 2021, p. 702) or as a place of crisis handling (Eriksson, 2018, p. 541; Zerfaß, Moreno, Tench, Verčič & Verhoeven, 2013, p. 71). Already in 2000, Ledingham and Bruning underpinned those aspects apart from digital communication by emphasizing relationship management and open communication as the most relevant measures for

dealing with crises effectively (p. 27). Furthermore, stakeholders get the opportunity to express their perceptions of the crisis (Tampere, Tampere & Abel, 2016, p. 61) via social media which indicates again the importance of a dialogic exchange. The participatory character also enables companies to maintain relationships and connect with customers (Adlmaier-Herbst, 2014, p. 8; Macnamara & Zerfass, 2012, p. 293).

Summing it up, social media is an important tool for crisis communication: it allows organizations to share relevant information quickly while engaging in dialog that improves relationships with their stakeholders (Camilleri, 2021, p. 6). Nevertheless, it is underrepresented in the research of crisis communication. Additionally, the Covid-19 pandemic forces corporations to renew their communication strategies. The pandemic as a special type of crisis has not been investigated yet. The existing literature focuses on self-inflicted types of crises in the environment of organizations with most often a clear crises trigger and thus a person in charge (Zerfass et al., 2013, p. 71).

This research presented below examines the theoretical gap of how an external crisis can affect the external corporate communication with customers focusing on the use of social media platforms.

2 Four Key Concepts of Corporate Communication

The Covid-19 pandemic changed the rules of communication strategies during a crisis and has stressed the need for companies to build and manage relationships with their customers. This paper aims at comparing corporate communications before and during the pandemic. To accomplish this, four core concepts of corporate communication were identified as a theoretical base for the present paper: crisis communication, issues management, social media communication, and dialog communication. Their significance and central assumptions are now briefly presented before they are later incorporated back into the discussion part.

2.1 Crisis Communication

When talking about the use of social media during the Covid-19 pandemic., it is important to first gather a common understanding on the topic of crisis communication. As a red-hot issue and special type of a crisis, affecting all areas of the society, it is facing corporations with immense challenges like a constant flow of new information as well as new rules and regulations or even personal concerns. Rapid response, transparency and maintaining continuous contact with the public are eminently important as well as strengthening trust and ensuring legitimacy (Verma & Gustafsson, 2020, p. 257; Zerfass, 2008, p. 68). Therefore, crisis management is an important part of corporate communication and comprises a number of factors that serve to combat crises and reduce the damage caused (Coombs, 2014, p. 4).

The Situational Crisis Communication Theory (SCCT) (Coombs, 2007, p. 168) identified ten different types of crises that can be classified into three categories. The first crisis category, to which the Covid-19 pandemic can also be assigned, “refers to what [is] known as victim crisis, where organizations are responsible to a limited extent and can be recognized as victims of the crisis along with all other stakeholders” (Romenti, Murtarelli & Valentini, 2014, p. 11). It suggests that crisis managers should match strategic crisis responses to the level of crisis responsibility and reputational threat posed by a crisis.

According to Ledingham and Bruning (2000), relationship management and ensuring open communication helps to deal with crises effectively (p. 27). Maintaining intensive relationships with service recipients is especially important for the service industry such as mobility companies because they influence the success or failure of the company more than other stakeholders do. In this approach, communication serves as a strategic means of moderating relationships with stakeholders. A cultivated relationship thus lowers the perceived risk for stakeholders and provides the company with necessary support in a crisis (Adlmaier-Herbst, 2014, p. 8). Therefore it is important to become a relationship-builder (Malecki et al., 2021, p. 702).

2.2 The Role of Issues Management

Instead of managing crises in such a way that you react in case of emergency, crisis management can also be conceptualized as a continuum of management activity that ranges from potential crisis identification and prevention through event response to post-crisis management in the long-term (Jaques, 2010, p. 469). In this understanding, the “best crisis management is to prevent a crisis occurring in the first place, or that it is much better to anticipate crises than to manage crises” (Jaques, 2010, p. 469-470). Crisis prevention can be divided into three different facets: early warning or scanning, issue and risk management, and emergency response (Jaques, 2010, p. 472; Lauzen, 1997, p. 67).

Issues management, however, was originally designed to enable corporations to participate in and not simply respond to public policy, but can also be understood and conceptualized as an “early warning or pre-crisis mechanism, closely aligned with strategic planning” (Jaques, 2010, p. 473). Wartick & Rude (1986) define issues management as “an early warning system for potential environmental threats, and attempts to promote more systematic and effective responses to particular issues by serving as a coordinating and integrating force within the corporation” (p. 124).

Well and effectively done, issues management is a vital strategy in mitigating the negative effects of crises and even allows organizations to avoid the crisis stage, because ideally, crises can be identified before they are actually occurring (Jaques, 2010, p. 471).

2.3 Social Media as an Effective Tool for Crisis Communication

As various research activities have already shown, the choice of the communication tool in times of crises has significant effects on reputation, emotionality, and interactive communication and is even more important than the delivered message itself (Liu et al., 2011, p. 348; Schultz et al., 2011, p. 25).

There is general consensus among researchers that social media, besides relationship management, is an important and effective tool for crisis communication (Eriksson, 2018, pp. 531-537). On the one hand, it allows organizations to rapidly spread relevant and credible information to inform the public on risk-decreasing actions and spread warnings to the public. On the other hand, it enables them to engage in dialog that improves relationships with their stakeholders, promotes situational awareness, and monitors current developments in the public (Camilleri, 2021, p. 6; Eriksson, 2018, p. 541; Ophir, 2018, p. 155; Wendling, Radisch & Jacobzone, 2013, p. 6).

Similar to the Situational Crisis Communication Theory (SCCT), “the social-mediated crisis communication (SMCC) model offers guidance for crisis managers built on best practices and knowledge related to social media’s role as a channel [...]” (Ihlen & Levenshus, 2017, p. 4).

The participatory character of social media enables mobility companies to engage with this challenge and connect with customers (Adlmaier-Herbst, 2014, p. 8; Macnamara & Zerfass, 2012, p. 293). Furthermore, not only organizations but also stakeholders get the opportunity to express their perceptions of the crisis (Tampere et al., 2016, p. 61). Recently Špoljarić (2021, p. 27) has shown that recipients call for a more personal tone of voice during crises.

While the use of relationship management and social media has been examined in terms of internal crises (a crisis triggered by an organization itself), the examination of social media communications in an external crisis like the Covid-19 pandemic has not yet been investigated. Hence, the aim of this paper is to shed light on corporate social media communication during an external, victim type of crisis as defined above.

2.4 The Value of Dialog Communication

As the fourth pillar of the theoretical basis of this study, the core assumptions of dialog communication are consulted. When organizations are responding to a crisis, no matter if online or offline, they are often especially focussed on maintaining reputation and gaining control instead of seeking a true dialog with their stakeholders.

Crises generate a lot of discussion within social media communication. If an organization wants to interact with affected stakeholders and protect its image, dialog can be contemplated as a viable communication approach. This is not least due to the fact that organizations must actively and proactively participate and not only observe stakeholders' conversations (Romenti et al., 2014, p. 27).

However, as Veil, Buehner, & Palenchar (2011) mentioned, it is important for organizations to balance between engagement, particularly in social media, and the effort to control information, because dialog communication is based on symmetrical, two-way communications and interactive relationships (Romenti et al., 2014, p. 13; see also Kent and Taylor, 1998). The subject of dialog communication is the design of interactions between two actors (Lischka, 2000, p. 18) and only takes place when the recipient can react to the message transmitted to the communicator and also transmits a communication message to the communicator, so a role change is happening (Lischka, 2000, p. 39). Dialog means interacting and exchanging ideas (Ihlen & Levenshus, 2017, p. 4), in the context of corporate communications between an organization and its stakeholders (Romenti et al., 2014, p. 11).

Through dialog, organizations can learn about issues that concern certain stakeholders they would not hear about otherwise. An organization should engage in dialog to cope with public pressure or social changes, in order to avoid exclusive self-focus. Otherwise, it risks reinforcing existing perspectives that might not benefit the organization (or society) or lose the licence to operate in the long run. For this reason, dialog is also a quality of communication (Ihlen & Levenshus, 2017, p. 3).

In principle, various instruments and measures of dialog communication can be distinguished: address function or proactive instruments, information processing function or database management and reception function or reactive instruments. Proactive instruments include all measures of a company that help communicate information to potential or current customers with the aim of establishing contact and initiating a dialog. Reactive tools are all measures that offer the customer the opportunity to get in touch with the company and on the initiative of the organization to respond. This serves as feedback from the customer and as a criterion for monitoring the success of proactive instruments. Online communication is of particular importance for both aspects (Lischka, 2000, p. 44).

In advance of crisis situations, organizations need to engage in dialog (Ihlen & Levenshus, 2017, p. 8). Well before a crisis occurs and regardless of whether a risk is manifested or not, organizations should establish dialog with stakeholders. Especially important is to incorporate social media tools into risk and crisis management policies and plans as well as into everyday communication activities (Ihlen & Levenshus, 2017, pp. 10-11; see also Veil et al., 2011).

Therefore, Romenti et al. (2014) developed, based on previous literature in the field, four conceptual types of dialog strategies¹ feasible on Web 2.0 (pp. 14-15)

All of them have different objectives and their effectiveness depends on the characteristics of the context in which they take place. The framing dialog strategy could be used to participate in online conversations, for example with the intention to reinforce organizational image during crisis, the concertative dialog strategy to offer solutions and present their own position, and the transforming dialog strategy to engage stakeholders in helping the organizations to find the best solutions to respond to the crisis (Romenti et al., 2014, p. 21).

¹ Which were as follows: (1) concertative dialog strategy, (2) transformative dialog strategy, (3) framing dialog strategy and (4) generative dialog strategy.

3 Research Questions

The demand for corporate communication that considers the needs of the stakeholder groups and the demand for a dialog-oriented relationship management increased in the light of globalization, digital interconnectedness and the accelerated exchange. As a result, it also reveals changed expectations for crisis communication. Therefore the pandemic puts companies and their crisis management to the test, especially the economic actors of the mobility sector.

The purpose of this study is to discover how the effects of the virus have changed the communication of German mobility companies with their customers, focusing on the use of corporate social media platforms. Therefore, the following research-leading question was derived: *“To what extent are the effects of the Covid-19 pandemic changing the external social media communication of the German mobility companies Lufthansa, Deutsche Bahn, and Flixbus with their customers on Facebook and Twitter?”* The study tries to close parts of the revealed research gap, following three research questions which specify the leading question:

RQ 1: How does the tone of voice of the posts (by the companies) differ before and during the pandemic?

RQ 2: How do the posts differ in terms of their form and content before and during the pandemic?

RQ 3: To what extent is a change in dialog communication with customers apparent?

4 Methodology

In order to investigate the presented research questions and to answer the research-leading question, social media posts by Deutsche Lufthansa, Deutsche Bahn and Flixbus were evaluated.

Deutsche Lufthansa AG as the airline with by far the most passengers in Germany (Lufthansa, Condor & TUI, 2020), Deutsche Bahn AG as the largest railway company in Germany (BAG, 2021, p. 28) and FlixBus GmbH as Europe's largest bus company with a market share of 93 % regarding the German long-distance bus market (Losch, 2017) represent the leading mobility providers in their specific business segments in Germany.

The survey was based on a text mining content analysis which allowed to focus on the elaboration of structures out of the data (Poscheschnik, Lederer & Hug, 2020, p. 191) under consideration of quantitative and qualitative elements (Mayring, 2014, p. 6). All published posts by the three companies on Facebook and Twitter from March to April 2019 and 2020 were included (N=771). This period seemed particularly relevant as the virus began to spread in Germany at this time. As a result of this development, people's mobility was increasingly restricted, borders were closed and restrictions on public life were imposed by the federal government (Federal Government, 2020a; Federal Government, 2020b).

The guideline for coding was composed of deductive categories of the literature which were complemented by inductive categories during the research process. It has furthermore been verified with the help of a pretest. During the analysis, ever more inductive categories, subcategories, and expressions were added.

To investigate the first research question, which deals with the tonality of the posts before and during the pandemic, the dimension of *tone of voice*, including the word characteristics *positive*, *neutral* and *negative*, was derived (Higgins, 1995, pp. 38-39).

In order to be able to investigate the second research question, asking to what extent the posts differed in their state before and during the pandemic, the dimensions *formal* and *content*, including the *date and time* of the post, its *length of contribution*, *call-to-action elements*, *design elements* as well as its *topic* and *intention*, were derived deductively.

For the third research question, dealing with the change in dialog communication between the company and the users, the first 50 user comments per post were examined. For this purpose, the dimension *dialog communication* containing *general response to the post*, *the basic mood / valence of the comment*, *one-to-one communication* and *number of levels of dialog communication* with several subcategories, was deduced.

5 Results

The results can be divided into two major parts. The first two research questions deal with the tone of voice, formal aspects and the content of the posts, while the third research question deals with the dialog communication below the posts. Thus, the first and second research questions analyze the communication of the companies themselves, while the third research question examines the communication of the companies with the customers.

5.1 Tone of Voice

The first research question, asking to what extent the tone of voice of the positings (by the three companies) differ before and during the pandemic, will be answered.

Overall, it was found that the posts from all companies were predominantly positive in tonality in both 2019 and 2020. Neutral tonality, found in almost one-fifth of the cases, decreased slightly in 2020. Posts with negative tonality could be found very rarely, although the clearest differences between the two years were seen here. While 6.56 % of posts had negative tonality in 2019, the number of posts with negative tonality increased to 10.77 % in 2020.

Comparing the three companies Deutsche Bahn, Flixbus and Lufthansa in terms of tone of voice, uneven results emerged: In the case of Deutsche Bahn, the year-on-year comparison of 2019 and 2020 generally indicated only very slight differences, with a comparatively high share of negative tonality in contrast to the other companies. In the case of Deutsche Bahn, it was interesting to see that the amount

of posts with a positive tone of voice was higher in 2020 than in 2019. Evaluating the posts of the company Flixbus, it became clear that the company generally did not use any negative tonality. In 2020, however, a decrease in positive tonality towards a more neutral tonality could be observed. The posts of the company Lufthansa showed a clear difference in neutral and negative tonality in the year-on-year comparison. While here the neutral tonality decreased significantly from 2019 to 2020, the negative tonality increased strongly and showed the most striking difference compared to the other companies.

All in all Deutsche Bahn showed a more positive tone of voice in the crisis year, while Flixbus increasingly used a neutral tone of voice and Lufthansa became significantly more negative in its tone of voice. This can possibly be explained by the fact that compared to Deutsche Bahn, Flixbus and especially Lufthansa also head for non-German regions. As a result, both companies were massively affected by border closures during the lockdown in the crisis year. Buses and planes came to a standstill, which explained a decrease in the positive tone of voice. Especially in the case of Lufthansa, the sharp increase in posts with a negative tonality indicated that the company was affected particularly severely by the crisis.

Thus, the first hypothesis can be derived: *The more a company is affected by an external crisis, the more negative the tone of voice of their social media communication becomes.*

5.2 Formality and Content

In the context of the second research question, which deals with how the posts differ in terms of their form and content before and during the pandemic, the dimensions of *formality* and *content* were derived.

As part of the formality, the length of the posts was examined. It was found that the posts were longer in 2020 than in 2019. Another criteria was the use of call-to-actions. The study showed that they were used in 34.24 % of all posts. The most

frequent call-to-actions were *Click on link*, *Call for information* and *Ask for comment*. Comparing the years, it was noticeable that the use of call-to-actions increased in 2020. Especially *Click on link* (2019: 12.07 %; 2020: 21.54 %) and *Call for information* (2019: 4.20 %; 2020: 15.64 %) were more frequently used in 2020 than in 2019.

The posts included the following design elements: *text*, *emoji*, *image (series)*, *infographic*, *video*, *link*, *poll*, *hashtag*, *GIF*, and *phone number service*. The most frequently used element was *text*, which still increased slightly in 2020 (2019: 98.42 %; 2020: 99,23 %). A similar trend was seen for *emojis* (40.53 %; 58.46 %) as well as for *links* (31.58 %; 48.21 %). However, the use of *hashtags* and *images* decreased slightly in 2020.

The *content* dimension was distinguished between the *topics* discussed in the posts and the *intention* the companies had in posting the content.

In general, the results of the analysis indicate a wide variety of topics. The most common topics covered in the posts were *corporate information*, *society/everyday life/culture*, *goodbye*, *geography*, and *Covid-19*. In both years, the topic of *corporate information* is in first place, with an increase in importance in 2020 (2019: 46.03 %; 2020: 50.64 %). Looking at the individual companies, both Deutsche Bahn and Lufthansa showed an increase in this topic in 2020, while it has become less important for Flixbus this year.

While in 2019 one-fifth of all posts dealt with the topic of *geography*, in 2020 *Covid-19* was the most frequently addressed topic with 21.85 %. It has newly emerged in 2020 and is characterized by further manifestations like *retrieval action*, *hygiene measures* and *schedule changes*. Lufthansa communicated most frequently about *Covid-19* (37.5 %), followed by Deutsche Bahn (12.16 %) and Flixbus (9.52 %). Moreover, different characteristics emerged in how the companies talked about this topic. Lufthansa showed a wide variety of topics concerning *Covid-19*, but communicated most frequently about *retrieval actions*. Flixbus communicated only about the topic *retrieval action*, while Deutsche Bahn primarily addressed the topic of *hygiene measures*.

With regard to the *intention*, why the companies published the posts, the categories that emerged most frequently were the intention of *addressing customers* (45.82 %), *providing information* (43.47 %), *inspiration* (20 %) and *entertainment* (10 %). A year-on-year comparison shows a slight increase in posts with the intention of *addressing customers* in 2020. The companies therefore primarily wanted to offer customers an incentive to gain information, while the intention to stimulate a booking declined slightly in 2020. A significant increase was seen in the intention of *informing* from 2019 (34.13 %) to 2020 (52.58 %), whereas the intentions *inspiration* and *entertainment* lost importance. In addition, it was noticeable that there was an increase in posts that included a *thank you note* in 2020, which made the posts more personal.

In terms of the three companies, they differ in the intention of their posts. While Lufthansa's focus was on *inspiration*, *information* and *addressing customers*, Deutsche Bahn focused primarily on *addressing customers*, followed by *information* and *entertainment*. Flixbus focused primarily on the intentions of *information* and *addressing customers*, whereby they mainly stimulated bookings. In the year-on-year comparison, the intentions *information* and *addressing customers* increased significantly at Lufthansa in 2020, while the intention *inspiration* decreased. In the context of *addressing customers*, the incentives to book and to gain information dominated at Lufthansa. At Flixbus, hardly any differences were found and the intention *information* as well as the *addressing customers* intention and thus the incentive to book tickets continued to be in the lead in 2020. At Deutsche Bahn, there was a clear increase in the intention *information*, while the intention *addressing customers* decreased slightly, often involving a *goodbye-note*.

In summary, the results indicate that there has been an overall increase in communication by the mobility companies. This can be explained by the fact that the companies published more explanatory content at the beginning of the pandemic which can also be seen in the increased use of call-to-actions in 2020. People were primarily encouraged to click on a link and get more information.

The increase of emojis also seemed remarkable, suggesting that companies were pursuing more personalized communication with users in 2020 to increase trust. This assumption can also be supported by more hashtags such as #WeAreInThisTogether by Lufthansa.

The content focus of the posts also shifted slightly in the crisis year. While the topic of corporate information has increased, there was a decline in content dealing with society, culture, everyday life, and geography. In addition, the topic Covid-19 was added in the crisis year, which clearly shows its influence on communication. With regard to the intention of the posts, the companies' intention to communicate information stands out above all. The increase in thank you notes in the crisis year supports the assumption that communication has become more personal.

Based on this, the second hypothesis can be formulated: *In uncertain times, the communication volume of companies increases and communication becomes more personal and emotional.*

5.3 Dialog Communication

The third and last research question deals with the extent to which a change in dialog communication with customers is apparent and gives insights into how the dialogs between companies and social media users have changed. The dimension *dialog communication* breaks down into the four categories: *general reactions to the post*, *valence of the comments*, *one-to-one communication*, and the *number of levels of follow-up communication*.

General reactions describe user feedback to a post without a response option from the company. The options of reacting are divided into *likes* and other *emoji reactions*, *commenting* and *sharing posts*. The comparison between 2019 and 2020 shows that in 2019, the average number of likes and other emojis was 11-50. This changed in 2020, when the majority of posts reached up to 400 reactions.

When looking at how often posts were commented on, it can be seen that the number of comments was relatively constant across years. In 2020, 92 % of posts were shared. This equals an increase of 8 % compared to the previous year. In a comparison of companies, this trend was also evident at Lufthansa and Deutsche Bahn. Flixbus, on the other hand, had a higher sharing rate in 2019 than in 2020.

In conclusion, general responses to company posts and shares increased in 2020, while commenting behavior remained relatively the same in both years.

The *valence of comments* is divided into *positive*, *negative* and *neutral*. Overall, there were mostly positive comments (37.15 %), closely followed by neutral comments (35.33 %). A shift in the users' tone of voice is evident from 2019 to 2020: here positive comments decreased and the part of neutral comments therefore increased. The share of negative comments is the smallest and has remained relatively constant over the years.

One-to-one communication describes the interactions between users and companies and manifests in the comments. Various aspects of dialog communication were examined here, beginning with an assessment of whether the posts generally contain company comments. The overall year-on-year comparison shows that comments on behalf of the company have decreased in 2020. This trend also applies to Lufthansa and Flixbus. Only Deutsche Bahn commented slightly more in 2020 than in 2019.

The *communication strategies*, as another part of one-to-one communication, show which intention users pursued with their comments, to which the companies then actually responded. The results show that a neutral attitude of the users towards the companies was the most represented in the comments in 2020 with 76.16 %. The share of positive attitudes such as *defenses* and *support* decreased by 5 %. Negative responses like *attacks* recorded a significantly stronger decrease of 13 % from 2019 to 2020. This suggests that the general communication between the company and the users was predominantly on a neutral basis.

Another important point of analysis is the content of user comments that triggered the companies to comment. In both 2019 and 2020, *questions* were the most relevant element that triggered corporate commentary. Yet the years differ gradually. 2019 was also characterized by the expression of *criticism* and *reproach* as well as comments on *service*. In 2020, *service* and topics dealing with *refund* or *cancellation* dominated as other relevant forms of user comments. An interesting point arises with regard to the topic of *Covid-19* in 2020, which only accounted for 1.85 % as a trigger for company comments and was therefore relatively low.

Relating the user comments to corporate comments, patterns in how companies have responded to a user comment in certain situations are revealed. The question as the most dominant trigger is mostly answered with *apologies*, *agreement*, *further information*, *forwarding*, *follow-up*, and *clarification questions* as well as *thank you notes* by the companies. Triggers such as *direct addresses*, *criticisms* or *reproaches*, and *service* were equally met with these responses. Comments about Covid-19 in 2020 were also often answered with a *request for patience or understanding*. Topics such as *environmental pollution* or *hygiene* were hardly followed by reactions from the companies.

Another criterion examined the extent to which users' follow-up comments were thematically compatible or incompatible with previous content. The results show that more than 85 % of the follow-up comments were thematically coherent. The year-on-year comparison additionally highlights that the thematic coherence of the comments increased up to 96.29 % in 2020.

Another component of the analysis of dialog communication was an analysis of the *levels of dialog* occurring in the comment field. Overall, the dialog partners on the channels served a range of 2-25 levels, with 2, 3 and 4 levels being the most common. The year-on-year comparison showed that more dialog levels aroused in 2020 than in 2019. Although the companies commented less in 2020, the levels of dialogs have increased, showing an intensified communication between the actors during the Covid-19 pandemic.

Summarizing the results of the analysis of dialog communication, some findings are particularly striking. The increase in the number of shares and reactions to posts in 2020 suggests a higher level of activity and engagement among users. While the number of user comments remained relatively similar in both years, there was a shift in the tone of voice of the comments towards neutral comments coupled with a decrease in positive comments. This also reflects the results of the evaluation of the general tone of the posts, even though there was no relevant negative shift in the comments overall.

Regarding the communication strategies, it turned out that companies mainly responded to neutral attitudes and attacks. This is also consistent with the dominant triggers, like questions and service topics, for company comments in both years. In 2020, it can also be seen that companies responded more often to comments on service and refunds or cancellations. The responses from the companies were mostly in the form of providing further information, forwarding, and follow-up or clarification questions. This corresponds to the trend that users mainly ask questions in the comments in order to obtain information. These questions were mostly classified as neutral attitudes towards the company. The topics of service and refund or cancellation, which were also important in 2020, show that the customers of the companies had a greater need for information on direct travel topics.

The increase in the thematic coherence of follow-up user comments indicates that the communication between users and companies has worked and thus the dialog in the comments has been more successful. Also, the dialog between individual users and the company went deeper in 2020. In summary, it can be said that dialog communication in 2020 was more active on the part of users.

These changing trends in dialog communication can be partly explained as a result of the Covid-19 pandemic. This led to a general reduction in the volume of travel, and customers were also confronted with cancellations and shortfalls. The emerging problems regarding the booked trips and the general uncertainty can be a reason

for the increased need for information. However, it should be noted that although criticism and reproaches were also voiced against the companies, this did not automatically lead to a negative shift in dialog communication in 2020. Critical statements were also represented in the same way in 2019, indicating that the companies were not necessarily exposed to more negative attitudes than under non-pandemic circumstances. This is also supported by the relatively low proportion of Covid-19-related issues in 2020.

Therefore, the third hypothesis can be derived, stating that the changing *dialog communication between customers and companies in an external crisis is characterized by more active dialogs with a neutral, informative character and a greater variety of topics.*

6 Discussion

In summary, the research question

To what extent do the effects of the Covid-19-pandemic change the external social media communication of German mobility companies, using the example of the Twitter and Facebook communication of Lufthansa, Deutsche Bahn and Flixbus with their customers?

can be answered as follows: In terms of tone, overall the companies' social media communication in 2020 was slightly more negative than in 2019. In formal terms, the communicative output increased and became more emotional and personal through various design tools and call-to-actions. Thematically, the posts in 2020 were primarily determined by information that directly concerned the companies or the Covid-19 pandemic. Dialog communication with users was more active, information-based, and neutral in the crisis year. In all these findings, however, different characteristics can be identified among the mobility companies studied, which can be explained, on the one hand, by the extent to which the companies are affected. For example, travel with Flixbus and Lufthansa was severely restricted

by the lockdown and various travel regulations in 2020. This circumstance could explain why the posts of these companies tend to have a neutral to negative tone. On the other hand, different usage intentions of the companies in the social media communication can also be assumed. Thematically, Lufthansa and Deutsche Bahn are very customer-centric with a focus on providing information, while FlixBus tends to focus on product promotion and sales strategies in its posts.

The trends in information-based communication can be found in all three dimensions, despite company-specific differences. The Covid-19 pandemic has created a great deal of uncertainty among the company's customers, coupled with a wide range of problems. Customers are likely to respond to this uncertainty with an increased need for stability and information. Facebook and Twitter are particularly suitable for meeting these needs. Both platforms enable rapid dissemination of company-specific information on bookings, cancellations, trips, etc., as well as their receipt. Social media is an effective tool in crisis communication in terms of providing credible information and monitoring current developments in the public (Eriksson, 2018, pp. 531-537). This is relevant because crises are always characterized by a lack of certainty. Companies can therefore use the channels to provide both precautionary and active information and to ensure a certain stability. In addition, social media is also suitable as an instrument of crisis communication thanks to the possibility of making direct contact with users, responding to their questions, wishes or criticism and engaging in dialog (Wendling et al., 2013, p. 6). If we relate the existing results to the four dialog strategies according to Romenti et al. (2014), the concertative dialog strategy can be partially observed among the companies' communication. This strategy describes how companies seek dialog with customers in order to offer solutions for the current crisis situation. Such a strategy is congruent with the social media communication of Deutsche Bahn, Lufthansa and FlixBus, which primarily pursued the intention of providing information and therefore solutions, both with their posts and in their dialog with users in the comments section.

Direct contact between customers and companies is essential for the survival of companies in risky and uncertain times such as during the Covid-19 pandemic. In order to remain viable, relationship management, which aims to cultivate and maintain customer relationships, is of particular importance (Ledingham & Bruning, 1998, p. 63). Lufthansa, Deutsche Bahn and Flixbus are attempting to do the same in order to survive even after the crisis. This goal can be achieved in part by more active, personal, and information-based customer communication in social media, as the companies pursued in 2020. What was unusual for a crisis in this case, however, was the predominantly neutral communication between companies and users, which was reflected in both the posts and the comments.

The same uncertainty faced by the customers of the companies also preoccupies the companies themselves. As a result of constantly changing rules and regulations on travel, Lufthansa, Flixbus and Deutsche Bahn have also been exposed to many problems, like information gaps in the team. This internal uncertainty could be an indication that the companies commented less overall in 2020 than in 2019 maybe due to limited opportunities to always provide customers with correct and up-to-date information.

Referring back to the research gap of this project report, the external crisis should be mentioned here as a special feature. Unlike grievances that are directly caused by a company and end in a crisis, the Covid-19 pandemic is an external cause that creates a crisis for the companies. It can be argued that customers' understanding towards the companies in the Covid-19 pandemic has increased, which is why communication is neither significantly positive nor negative, but takes the neutral direction. The sense of belonging in the Covid-19 pandemic is also an explanatory pattern for the fact that the companies communicated in a more personal and emotional way. Taking all of these arguments into account, it can be assumed that the change in customer communication in 2020 was less about crisis management and more about risk or issues management (Moreno, Fuentes-Lara & Navarro,

2020, p. 1). This is supported by the above mentioned information communication as an attempt to absorb and compensate for the risks and problems arising from the Covid-19 pandemic with the aim of preventing an internal crisis within the company.

7 Limitations

Reflecting on the whole research project, limitations of the study are now discussed and the strengths and weaknesses of the method used are examined. The pretest was used to ensure that the quality criteria of objectivity and reliability were met. The channels of the companies were divided among the five coders – a stronger mixing could have excluded irregularities during the coding process, which would have guaranteed higher objectivity and reliability.

Since the change in customer communication in comparison 2019/2020 on Facebook and Twitter of the three mobility companies was to be examined and the posts as well as the comments were evaluated on the basis of the listed dimensions, the quality criterion validity was fulfilled.

With regard to the category system, individual categories of the dimensions *tone of voice*, *formality* and *content*, and *dialog communication* are to be critically examined. In the subcategory *length of contribution*, it should first be noted that measurement based on sentences is not meaningful, since each sentence is of different length. Secondly, the sentence length can only be compared to a limited extent in relation to the platforms, since Twitter limits the number of characters to 280 and there is no technical restriction on Facebook. Due to the low informative value of this category, it was not listed in the results section. In the categories *topic* and *intention*, the subcategory *goodbye-note* is strongly represented, which could have led to a slight distortion of the results. The category *tone of voice* or the expression *valence of comments* was evaluated subjectively by the coders. In order to achieve a high degree of objectivity, unambiguous coding rules would have been helpful. It should

be noted, however, that these categories are highly context-dependent due to the inclusion of *emojis* and *images*, which influences valence and means that subjectivity can never be completely ruled out.

A technical limitation has arisen due to the coding software (MAXQDA). The collection of 50 comments per post was not always possible because the program did not always transfer all comments.

8 Conclusion

External crises and their impact on communication are rarely examined in existing literature. Therefore, the Covid-19 pandemic offered the opportunity to close this gap and thus expand the state of research concerning corporate crisis communication via social media. The exploratory study thus breaks up the rather saturated research field of crisis communication around a highly relevant factor: the Covid-19 pandemic as an external crisis. In this context, traditional theoretical frameworks such as relationship management or dialog communication gain new importance. The study confirms that interaction and managing relationships are more important than ever, especially in times of uncertainty, fear, and instability. Moreover, it underpins the fact that maintaining direct contact with the relevant stakeholders is essential for companies in crisis situations.

However, the research focused on specific companies (mobility) as well as specific communication tools (social media). This is where further studies need to start and shed more light on these variables, analyzing other companies and channels and corporate websites. The goal should be to be able to describe, explain and, at best, control corporate communications during external crises.

It should also be mentioned that the study took the corporate perspective with regard to the change in communication into account. However, it is equally important to take on the customer's perspective, as they have a great influence on content

creation, especially in social media. These two perspectives must then be merged to provide realistic and relevant results for corporate communications.

In terms of practice, the results provide important insights, as companies will have to deal with the after-effects of the Covid-19 pandemic for some time to come. Especially when dealing with an external crisis, the results provide important information about what needs to be considered. In the future, for example, companies can take care in situations of an external crisis to respond quickly to customers' increasing need for information and thus strengthen and maintain the relationship.

In conclusion, it can be stated that a calm and objective dealing with an external crisis as well as the continuous and active cultivation of relationships with customers should be the ambition of all companies in order to successfully master a crisis.

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