

# Digital Marketing Strategy and Application of Social Media in Crisis PR on Railways

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**Abstract**—This paper analyzes how the Infrastructure of Serbian Railways, using digital communication channels and social media, can influence public information, views and forms public opinion about railways. In the research, the authors specifically analyze the activities and measures released by the crisis PR in social media of the above mentioned company aiming to inform about railway accidents, and form public opinion. Also, the authors study and define the use of social media by crisis PR on railways as part of the digital marketing strategy in this railway company. The research aims to determine whether railways can reduce the negative consequences of the railway accidents in the public through social media. The authors conclude that the Infrastructure of Serbian Railways can reduce such negative consequences with quick and accurate information in social media and avoid inaccurate and sensational announcements by informing citizens promptly. Considering this, the paper also defines future digital activities by crisis PR in the event of railway accidents.

**Keywords** - crisis PR, railways, social media, digital communications

## I. INTRODUCTION

Planned and organized PR activities in the Serbian Railways began in the nineties of the 20th century, intending to improve a degree and level of communication between the railways and the wider public. With the development of computerization in the Serbian Railways and the more significant presence of Internet communication in everyday business operations at the beginning of the 21st century, communication with the public has become faster, cheaper, and more efficient.

The first web presentation of the Serbian Railways ([www.zeleznicesrbije.com](http://www.zeleznicesrbije.com)) appeared in 2006, with an average annual visitation of about one and a half million visitors, which was an enviable number for that time. The official Internet presentation of Serbian Railways is becoming an important communication channel with the public, service users, and the media. In five years, from 2006 to 2011, 581 news items were published on the Serbian Railways website, with 1,228,828 views.

In the paper published at the 11th International E-Commerce Conference in 2011, the Internet as a function of improving relations with the public of the Serbian Railways [1], the authors stated that 75% of PR activities in 2010 were based on Internet communications.

The first railway presentation on Facebook was the page about the Railway Museum published in March 2011. On the first day after its publication, it was followed by about two hundred visitors, mainly railway enthusiasts.

As a result of the restructuring of the once unique railway company the Serbian Railways, since August 10, 2015, the railway sector in Serbia has consisted of four legally and commercially independent railway joint-stock companies wholly owned by the State of Serbia: Infrastructure of Serbian Railways, Serbia Voz, Serbia Cargo, and Serbian Railways. Each of these railway companies has developed a digital marketing strategy and social media application in accordance with their business and functional needs and specific characteristics.

## II. BACKGROUND

The development of the Internet, mobile and other modern information technologies has contributed to the transformation of many industrial branches and the entire social life. Thanks to that, the broader social community got the opportunity to define problems and offer solutions for them in many areas of its activity [2] [3] [4]. One of those areas is railway traffic [5]. At the same time, in the last twenty years, modern information technologies and the Internet have dramatically influenced the implementation of practical activities in the field of public relations [6]. Many studies have accompanied the development of information technologies showing their importance and effects on improving the public relations [7] [8] [9].

The practice of public relations has been transformed to the greatest extent by social media [10], which now accounts for the majority of Internet traffic [11]. Both media and journalists have accepted them to find information and for news transmission, which allowed crises to spread around the world in a minute. The railway transport represents a sphere of potential risks in which there is always a possibility of various emergencies, so crisis communication in a railway company is a very sophisticated sphere of public relations [12]. Passengers increasingly use social media to communicate with railway operators, so these companies adopt social media to establish communication with users of their services [13].

The crisis communications theorists also investigated the measures that the Chinese government implemented in this area after a severe collision and a major train accident on the high-speed railway on July 23, 2011[14].

The Canadian Pacific Railway train derailment is one of five

crises in the past decade. The authors analyzed how to communicate with the public and, based on that, defined basic guidelines for crisis communication [15]. The use of social media was also analyzed during the Metropolitan Transportation Authority train derailment in December 2013. Also, the analysis included the reaction of how the railway company, the general public, and the media reacted, how these groups used both traditional and social media to reach others with the story and how the news about the train derailment spread across the country thanks to social media [16].

The Ministry of the Railways of India also uses Twitter to share information and collect complaints and opinions on rail traffic issues [17]. The Indian Railways, with 118 thousand kilometers of tracks and 23 million passengers transported daily, face enormous challenges and dissatisfaction of service users on a daily basis. That is why this company has become highly active in the digital space of social media in order to respond to all problems and complaints in real-time [18].

The crises on railways can also arise due to infrastructure projects, so the authors also dealt with negative posts on Twitter regarding the United Kingdom project High Speed 2, stating that the inefficiency of conventional approaches can be improved by analyzing social media, as well as posting about infrastructure social media projects provide a large amount of data to evaluate public opinion [19].

The topic of the research was the communications of the Austrian Railways in the summer of 2015, when a large number of refugees was found in this country [20], but also the negative impact of the terrorist attack in China in 2014 on the Kunming Railway Station, on the urban development of this city [21].

The authors dealt with communication in crisis situations and other areas besides railways. Thus, the research topics were online crisis communication in Sweden from 2005-2011 [22]. The crisis communications in the USA on Twitter [23] and the role of Twitter during the devastating earthquake and tsunami in Japan in 2011 [24], crisis management in the UK rail industry and the steps needed to improve it [25] and the role of social media in the public transport sector in Singapore [26].

The EGCERSIS project, which aims to use virtual reality to improve the efficiency of crisis management, was demonstrated precisely by the crisis at the metro station [27].

### III. METHODOLOGY

Based on the conducted quantitative research and qualitative analysis of the previous activities of the Infrastructure of Serbian Railways in crisis PR through social media and digital channels of communication, the paper establishes a cause-and-effect relationship between the activities that the company implements during emergency events on the railways through social media and informing the public, influencing public opinion and reducing negative consequences in those situations.

Also, based on the conducted research, the paper analyzes and defines the use of social media in crisis PR on railways within the digital marketing strategy of this railway company.

## IV. RESEARCH RESULTS AND IMPLICATIONS

### A. The Infrastructure of Serbian Railways on Social Media and the Internet

Joint-stock company for the management of public railway infrastructure, the Infrastructure of Serbian Railways performs activities of general interest, namely: maintenance of public railway infrastructure, organization, and regulation of railway traffic, provision of track access, and usage of public railway infrastructure to all interested railway operators and safeguarding of railway infrastructure.

The newly founded railway company Infrastructure of Serbian Railways since 2015 has had its institutional website and Facebook page. In 2019 the company opened its accounts on Instagram and Twitter to communicate with the public better and faster and to make its operations and functioning more open.

On March 13, 2023, the institutional presentations of the Infrastructure of Serbian Railways had the following number of visitors:

- a. Facebook (facebook.com/inf.zel.srb) - 2,200 followers;
- b. Instagram (inf.zel.srb) – 1,229 followers;
- c. Twitter (@inf\_zel\_srb) – 119 followers;
- d. Youtube (@infrastrukturazeznicrsrb6186) – 2,170 followers;

Official web presentations of the Infrastructure of Serbian Railways regarding the number of visitors did not have a significant presence on social media. However, unlike other commercial or promotional presentations on social media, for the Infrastructure of Serbian Railways, more than the number of followers is needed to succeed and realize the goals of activities on the Internet and social media.

Via social media, the Infrastructure of Serbian Railways addresses the following target groups: the most comprehensive external public, media, service users (operators – 1 user in passenger and 18 in freight rail transport), state bodies, state administration, and local government, international organizations, railway associations, and employees.

On the official company website and social media, Infrastructure of Serbian Railways had 173 posts in 2022. (Fig.1). This means that, on average, the Infrastructure of Serbian Railways had one post on the Internet and social media almost every other day. Out of 173 posts on the Internet and social media, 74 were related to the projects of modernization and reconstruction of railway infrastructure in Serbia. Last year was marked by the completion of works and the launching of the first Serbian high-speed railway line for 200 kilometers per hour Belgrade - Novi Sad, which had the greatest impact on many postings about the modernization projects of Serbian railways.

In addition, 50 posts were related to the functioning of railways, safety, and train traffic on Serbian railways, and 26 to the business policy of the Infrastructure of Serbian Railways. On social media, the Infrastructure of Serbian Railways published last year additional 23 other reports on topics aimed at the affirmation and promotion of railways, railway workers, and the railway professions, and also related to railway tourism, history, tradition, humanitarian causes, as well as participation in fairs and international activities (Fig.1).

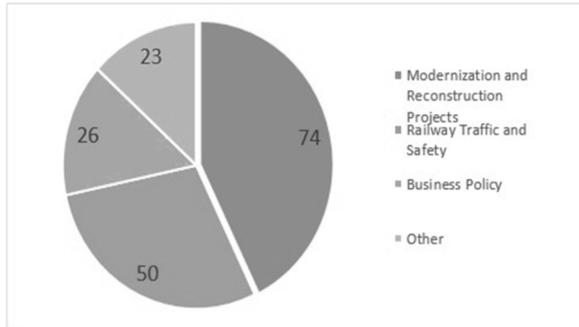


Fig. 1. Infrastructure of Serbian Railways' Posts in 2022

A large number of announcements on institutional social media and the website are significant for all target groups that are addressed in this way, starting from the general public, through state authorities and the media, to employees.

Through posts on the Internet and digital communication channels, the Infrastructure of Serbian Railways achieved the following effects: speed of information and information flow, efficiency in implementation, the establishment of two-way communication channels with the public, transparency in business, and development of internal relations within the company.

#### B. Development of digital marketing strategy in the Infrastructure of Serbian Railways

In a strategic and conceptual sense, the digital marketing strategy in the Infrastructure of Serbian Railways is determined annually, based on the annual Business Plan of this railways company, which defines its business and development policy.

The digital marketing strategy in the Infrastructure of Serbian Railways is based on the following:

- Presentation of the Infrastructure of Serbian Railways on social media and the Internet.
- Influence on public opinion and media creation and public views on essential topics of railway business through social media and the Internet.
- Institutional representation of the company on social media and the Internet.
- Presentation of projects of modernization, business, and functioning of the railway.
- Monitoring media coverage based on the company's digital marketing.
- Adequate "coverage" of users and target groups with the company's information and activities.
- Monitoring public comments posted on social media and the Internet.

The objectives of the activities implemented by the Infrastructure of Serbian Railways online on social media and using digital communication channels are:

- a. Quick, accurate, and objective information to the media and the public about the functioning and business operations of the railway;
- b. Creation of media and public opinions about the Infrastructure of Serbian Railways;
- c. Raising awareness of the importance and advantages of

railway traffic and its development;

- d. Influencing the positions and opinions of target groups and the public, those groups that influence the adoption and implementation of appropriate strategic and financial decisions;
- e. Creation of media and public views and opinions on the company's important business topics;
- f. Improvement of business relations with different target groups;
- g. Changing the image of and improving the reputation of the railways in the public;
- h. Transparency in work;
- i. Development of internal information within the company;

In the strategy of digital marketing in the Infrastructure of Serbian Railways, priority is given to the implementation of the following tasks: topicality of the topic (in accordance with the needs of the company or the demands of the public and the media), speed of reaction, accuracy, and timeliness of the information and the quality of texts and visual content (creation of video clips, graphs, images, etc.).

In order to accomplish these tasks, the Infrastructure of Serbian Railways should create and post ready-made media content on social media, which the media can easily and quickly take over completely, such as statements from representatives of the railway, recordings from events or the field, and others.

Next, the company should create and publish content on social media that can attract a wider audience and the public, such as interesting facts about the railway and railway workers, the history of railways, etc.

The content published on social media should be improved in a visual and technical sense. It should contain video clips, virtual railway tours, simulations of railways and facilities, graphs, photos, etc.).

#### C. Crisis PR – Extraordinary Traffic Events and Digital PR of the Railways

A special place and role in the digital marketing strategy in the Railway Infrastructure of Serbia are the activities of crisis PR on social media and the Internet in cases of extraordinary events and accidents in railway traffic.

The Infrastructure of Serbian Railways has a network of railways in Serbia with a total length of 3,348 kilometers. In 2022, 75,968 freight and 114,640 passenger trains operated on these lines. (Business Plan the Infrastructure Serbian Railways, 2023)

At the same time, around 500 extraordinary events, that is, accidents and incidents in railway traffic occur annually on Serbian railway lines. Thus, in 2022, there were 473 and in 2021, 518 accidents and incidents in railway traffic.

Out of 473 extraordinary events last year, 227 were accidents, and 246 were incidents in railway traffic. The category of railway accidents includes, among others: derailments of trains, accidents during the transport of dangerous goods by railway, accidents at level crossings, and the collision of a train with a railway vehicle or another obstacle on the railway line, traffic interruptions, and people run over on the railway or injuries due to electric shocks from the overhead contact line. The consequences of railway accidents are often interruptions of railway traffic and material damage, and in some cases, there are also human victims.

However, apart from the direct consequences, these crisis situations in railway transport always arouse the great interest of the public and the media and cause damage to the reputation of the Infrastructure of Serbian Railways.

At the same time, exceptionally extraordinary events with more prolonged traffic interruptions, more significant material damage or human casualties, such as derailment of freight trains with dangerous goods or accidents at level crossings, certainly weaken the position of the railways with the State authorities, as well as with the State administration and local governments. This is particularly important because these target groups make strategic business and financial decisions regarding railway traffic.

In rail accidents and crisis PR situations, digital communications and social media can positively and negatively affect existing circumstances (Fig.2.)



**Fig. 2. Crisis PR on the company's account on Facebook**

Social media users can quickly post on their profiles and share information about train accidents. For social media users, the speed of publishing information is more important than its accuracy, completeness, and reliability. Such announcements from social media are then taken over by certain media and spread without prior verification, uncritically and sensationally on their portals. This can harm the elimination of the consequences of an extraordinary event, and in certain situations, there is a danger of an unjustified spread of panic.

In such a situation, no matter how important it is to eliminate the consequences of an extraordinary event in railway traffic as quickly as possible, a quick, precise, and timely reaction in the field of public relations is no less important. The railway needs to overcome such crises as quickly as possible and reduce damage to a minor extent through truthful, efficient, and high-quality communication with the broader public.

In order to achieve this, the Infrastructure of Serbian Railways, with its activities on social media and the Internet, should prevent all misinformation that may appear on digital communication channels.

#### *D. Operational Digital Activities of Crisis Management PR on Railways*

The railway digital crisis management PR in such situations includes the implementation of the following operational activities:

##### 1. Information receiving speed

Viber groups are constantly active in the Infrastructure of Serbian Railways, which includes the most responsible managers and participants in the organization of railway traffic, intending to enable the fastest flow and dissemination of information about extraordinary events;

##### 2. Accuracy, precision, and reliability of information

Upon receipt of the first information from the field via Viber groups that an extraordinary event has occurred, the information obtained is checked and supplemented through hierarchical communication channels;

##### 3. Information flow control

Control of the flow of information during extraordinary events is regulated by internal rules, and an authorized person can only perform the entire communication with the public in such situations;

##### 4. The speed of publishing information on social media and the website

Expert services of the Infrastructure of Serbian Railways, in charge of public relations and cooperation with the media, already upon receiving the first information, prepare a statement about the extraordinary event, and after checking and receiving additional information, finally, publish the statement on the website and social media, and deliver it to the media.

##### 5. Monitoring posts on social media and the Internet

The on-call teams of the company in charge of public relations and cooperation with the media, after publishing press releases regarding extraordinary events, monitor how the media will convey that information. At the same time, they monitor reactions and comments on social media.

##### 6. Responding to comments from social media users

In case of need, the company responds to social media users' questions through digital communication channels.

By quick and efficient response, accurate and verified information published on social media and the website, and objective and truthful information to the public through digital communication channels, the company reduces PR damage and negative consequences of events in public relations. At the same time, sensationalism in the media and the potential spread of panic among citizens is prevented, whereas the company shows a proactive approach in crisis situations, and at the same time, it is possible to remediate the consequences of an accident without pressure from the media and the public (Fig.3)

In the paper "Digital marketing techniques for Promotion of Infrastructure of Serbian Railways [28], research results were published, which showed that in the period from April 15 to December 31, 2020, 80 percent of publications in the media with a negative connotation were based on announcements and official information. These were train derailments, accidents at level crossings, interruptions in train traffic, and other railway accidents.



Fig.3: Operational Digital Activities of the Crisis PR on the Railways

#### E. Future Railway Crisis PR Activities on Social Media

Bearing in mind all of the above, the Infrastructure of Serbian Railways made a new step forward in 2023 when it comes to its activities on social media in cases of extraordinary events on the railways.

The infrastructure of the Serbian Railways publishes a recorded statement of the company's authorized person about the railway accident via social media. This way, the media can download a timely and precise (Fig.4.)

As part of the crisis PR of the Infrastructure of Serbian Railways on social media, the primary task in the coming period is the reaction speed. The goal of such activities is for the Infrastructure of Serbian Railways to publish appropriate information through digital communication channels before any other social media user, including the media.

Along with that, the task of the Infrastructure of Serbian Railways is to develop the habit of the media and social media users to immediately search for the most up-to-date information on the company's official social media accounts.

At the same time, students of the fourth year of the Faculty of Organizational Sciences of the University of Belgrade this school year will offer, through digital marketing techniques, but also open innovations, marketing, and technical-technological solutions that could be applied in crisis PR on the railways in some of the characteristic extraordinary events in traffic [29].



Fig.4: Crisis PR on the company presentation on Instagram

#### V. CONCLUSION

Using digital communication channels and social media, the Infrastructure of Serbian Railways can influence public information and views and form public opinion. This especially applies to the activities implemented within the digital crisis PR on the railways in cases of extraordinary events and railway accidents.

Organized, planned, and targeted engagement on social media can lead to more information, presence, and influence in the public than before. Through social media, the Infrastructure of Serbian Railways can quickly and efficiently convey its information and views to the media and the wider public, thus influencing the formation of public opinion regarding railways.

In cases of extraordinary events, with quick and accurate information on social media, this railway company can reduce the negative consequences of such events in the public eye and avoid inaccurate and sensationalistic announcements on social media by informing citizens on time.

Digital marketing activities will be continued and intensified, enriched in terms of content and concept, and improved in visual and technical terms to achieve the set goals successfully.

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