

CRISIS COMMUNICATION IN THE CIVIL PROTECTION SYSTEM IN EMERGENCY SITUATIONS

Ivica Sočković, Blaženka Budimir, Igor Bida

¹Služba civilne zaštite, Slavonski Brod ŽC 112 Slavonski Brod, isockovic@mup.hr

Summary: It is common knowledge that marketing techniques and principles work well in organizations operating in an open market where competition is high. However, in the public sector, where there is no competition, the principles and techniques of marketing are either not applied at all or are applied to a much smaller extent compared to organizations operating in a competitive market. As digital technologies are increasingly applied, new business opportunities are offered, new information media are offered, information is becoming more and more available, and the demands of citizens for improvements in public sector services are also increasing.

In the past years in the territory of the Republic of Croatia, we had significant emergency situations such as floods, earthquakes, fires, infectious diseases. In these situations, there is a large proportion of calls to the number 112 of the same or similar nature, when citizens are mostly looking for some information related to a specific event or phenomenon.

112 centers occupy a central place in the civil protection system, which is visible in emergency situations when numerous information from the field pour into the unique European number for emergency services 112 in real time. In crisis situations, quick and accurate information or instructions to citizens come to the fore in the civil protection system, which is delivered to a large number of interested citizens in the form of a press release for the population via electronic media. At the same time, the announcement for the population relieves the 112 centers of a large number of the same or similar calls from citizens.

The paper aims to show the possibilities for faster, more successful and more efficient public sector communication in crisis situations if marketing techniques and principles that are proven to work in the real sector are applied.

Keywords: crisis, crisis communication, single European number for emergency services 112, emergency situation, announcement for the population.

1. INTRODUCTION

It is common knowledge that marketing techniques and principles work well in organizations operating in an open market where competition is high. However, in the public sector, where there is no competition, the principles and techniques of marketing are either not applied at all or are applied to a much smaller extent compared to organizations operating in a competitive market. As digital technologies are increasingly applied, new business opportunities are offered, new information media are offered, information is becoming more and more available, and the demands of citizens for improvements in public sector services are also increasing. Public sector marketing is a rather unexplored area, but every day there are more and more works dealing with this issue.

The topic of this paper is Crisis communication in the system of civil protection in emergency situations. In emergency situations, such as floods, earthquakes, air pollution, soil pollution, crises with drinking water, various technical-technological accidents, etc. it was observed that informing the public about the incident and instructions on how to act in the situation is rather late, or information from several sources is unclear and even contradictory, and for these reasons citizens call 112 to get accurate information. The technical-technological and human capacities for accepting calls to the number 112 are limited, and many callers cannot get the number 112 in emergency situations. Therefore, it is necessary to inform the public as efficiently as possible and give instructions on how to act in emergency situations. In emergency situations, it is necessary to inform as many citizens as possible about the extraordinary event with instructions on how to proceed.

1.1. *Research methods*

Primary and secondary sources were used for the preparation of this paper. Available literature in the form of books and other publications and internet sources related to marketing, marketing communication, social networks, crisis and crisis situations were used as secondary sources. The results of our own research were used as primary sources.

In addition to the collection of information, a survey was also conducted (a total of 40 people shared their expectations and experiences), the results of which will be interpreted later in the paper.

The results of the primary research (survey questionnaire) are compared with the results from

secondary sources as well as with the theoretical part of the research, and a conclusion is drawn based on this.

2. MARKETING IN THE PUBLIC SECTOR

Marketing can be observed and linked to the performance of each employee's work. The performance of work obligations of each employee affects the achievement of the results of the organization in which

he is employed. Also, every decision of the organization's management affects the achievement of its goals and contributes to the creation of the organization's image. Peter Drucker (Kotler, 2006) believes that the goal of marketing is to make sales redundant and to know and understand the customer so well that the product or service fits and sells itself.

The fundamental goal of marketing is to satisfy the needs of consumers and, based on that, to satisfy the needs of economic entities by making a profit, and since the seventies of the last century, marketing has been focused on society and human well-being (Meler, Dukić, 2007). In its universality, marketing imposed itself on a whole range of areas of human activity, and already in the eighties of the last century, the theoretical implementation of marketing in non-economic activities was set as a necessity (Meler, 2005). The quality of life of millions of people in modern countries depends on the knowledge, skills, efficiency, effectiveness, loyalty and morals on the basis of which the public sector performs its duties and achieves the goals entrusted to it in the realization of public interests and the promotion of the common good. The public sector is a common name for the sector of the general government and public enterprises owned by the state. The public sector includes all institutions owned by the state that produce public goods and services. The basic task of the public sector is to ensure that the needs and interests of citizens are met. The public sector we can define as "a body that has received political powers and means necessary to satisfy general interests and whose ultimate purpose is the general interest" (Perko Šeparović, 2006). According to Kotler (Kotler, 2007), marketing in the public sector is the best tool for planning in a public organization that wants to meet the needs of citizens and deliver real value. The basic task to which marketing must respond is to create a result that the target market will appreciate. In the private sector, the aim is to satisfy clients and create value for them, and in the public sector, the aim is to satisfy citizens and create value for citizens. In the public sector, already proven marketing principles

and techniques should be applied in order to achieve goals that contribute to the common good.

3. COMMUNICATING IN CRISIS SITUATIONS

The word communication comes from the Latin word *communicare* which means to make general. We can say that communication is the exchange of information, ideas and feelings through verbal and non- verbal means adapted to a specific situation (Fox, 2001). Crises in our region in the last thirty years have been a frequent occurrence, since 1991 and the Homeland War, up to the fire in Kornati and the great suffering of the firefighters who were putting out the fire, large fires on the coast, burst embankments on the Sava River and other floods, frequent fires at landfills for secondary raw materials, etc. In everyday speech, crisis means a difficult situation. The very word crisis causes people an uncomfortable feeling. Communication is a key and unavoidable part of marketing, and a large part of crisis management is related to information management. The word crisis comes from the Greek word *krisis*, which means a break, a transitory difficult state in any natural, social and thought process (Nakladni zavod Matice hrvatske, 1989). In ancient Greece, the word crisis meant a decision. The London School of Public Relations defines a crisis as "a serious incident that affects human safety, the environment, products or the reputation of the organization" (Novak, 2001).

Osmanagić Bedenik (Osmanagić Bedenik, 2003) defines a crisis as "a decision in a state in which the new and the old are arguing". According to Novak (Novak, 2001), a crisis can also be defined as "circumstances in which the safety, life or survival of an individual or organization are threatened, and as an unplanned and unwanted process that lasts for a certain period of time, which can only be partially influenced and can end in various ways". We see that the pressure inherent in the crisis was due to the lack of time. Managers who manage a crisis situation must make quick decisions and overcome the stress of all participants in the crisis. For an organization, a crisis is a circumstance in which it is no longer possible to operate normally. The negative impact of the crisis on the image of the organization can be very large and threaten the survival of the organization. In a crisis, it is necessary to pay special attention to communication with the public, because negative publications in the media can harm the organization.

3.1. Crisis communication on the Internet

The Internet is one of the media used to transmit marketing communication messages. Online marketing communication is a powerful way to strengthen customer relationships. On the Internet, users control the content. The Internet allows users to quickly spread their views and experiences related to a product or service. Automated online support significantly lowers the organization's costs compared to servicing customers by phone or mail. The Internet is the cheapest way of communication in the world. Communication with consumers is no longer one-sided, but interactive.

For a long time, the only way to communicate with consumers about your products and services was through traditional media. With the development of technologies and the advent of the Internet, communication with consumers is changing significantly. The Internet introduces new concepts of communication between producers and consumers. The invention and introduction of the Internet into all aspects of life has led to new possibilities in the process of marketing communication. Integrated marketing communication ensures the maximization of communication effects and management of the communication process. This means the harmonization of all communication efforts to achieve goals through synergy of action (Ružić, Biloš, Turkalj, 2014).

3.1.1. Social networks

The emergence and development of social media have significantly influenced marketing communication activities. Social media includes Internet applications that are based on the achievements of the broadband Internet, which enables the use and exchange of content that users create themselves (Pavičić, Gnjidić, Drašković, 2014). So, social media is a group of new media on the Internet that are based on user interactions and the creation and exchange of digital content. Unlike traditional media where there is one provider and many recipients of content, social media allows each user to be both a provider and recipient of content. On social media, users create content through their activities, and by following other users' content, they determine their popularity. The most important form of social media for marketing communication is social networks, and Srića describes them as a means of mass social connection and communication that are completely focused on quality two-way communication (Varga, Strugar, 2016).

Recently, we have witnessed revolutionary changes on the Internet. Until the advent of social networks, searches on the Internet were focused on passive browsing of content on Internet pages. Few internet sites allowed for two-way communication. The emergence of social networks has enabled two-way communication. The Internet has become the place and main source where users can access data and information from all areas. The most common information that users look for on the Internet is from the sphere of daily events, that is, news (Šarac, Jevremović, Radovanović, 2015).

Social networks make invisible social links visible, so we see who our friends are, who our friends' friends are, and who their friends are (Ružić, Biloš, Turkalj, 2014). In Figure 1, we can see how a social network is made up of numerous relationships in the network itself, which enable its members to easily reach the required information.



Figure 1: Network of connections on social networks

Source: Ružić, D. Biloš, A. Turkalj, D. (2014). E-Marketing. Osijek: Faculty of Economics in Osijek. p. 87.

Social networks and changes in consumer behavior have led to the application of a concept known in traditional marketing as word-of-mouth marketing. With the development of social networks, the spread of such messages has become many times easier and faster.

The world of the future is the world of multimedia communication enhanced by the interaction of social networks, which will take place in the mobile space, with the use of devices such as smartphones (Varga, Strugar, 2016).

3.1.1.1. Advantages of social networks

One of the main advantages of social networks is the sense of belonging, which allows users to chat and comment on photos, which gives them a sense of belonging. Likewise, social networks are free and easily accessible, which makes it easy to connect and make new friends. Information or news can be easily obtained through social networks, thus connecting people with the same interests and providing them with the opportunity to discuss and exchange information.

The next advantage is speed and mobility, which means that private messages and comments can be forwarded in seconds, which can solve a problem faster. Private messages allow for a deeper relationship and communication over a longer period of time.

3.1.1.2. Disadvantages of social networks

As there are advantages of social networks, there are also disadvantages. All social networks are free, and registration requires a valid e-mail address and username. For this reason, you should be careful because you never know who is really hiding behind another user profile. By providing personal data, a personal profile of the network user is created, hobbies, habits, social, sexual and political orientations are revealed. In this way, people can be monitored and used for different purposes.





4. COMMUNICATION OF THE DIRECTORATE OF CIVIL PROTECTION

The current Civil Protection System Act (2015) regulates the system and operation of civil protection. Civil protection is defined by this Law as a system of organizing participants, operational forces and citizens for the protection and rescue of people, animals, material and cultural assets and the environment in major accidents and disasters and elimination of the consequences of terrorism and war destruction. Civil protection is of public interest for the Republic of Croatia and for the security of the Republic of Croatia. The aforementioned Law defines alerting and informing citizens as drawing attention to danger by using prescribed warning signs and providing timely and necessary information in order to undertake activities for effective protection. The law also defines preventive activities in the civil protection system, which, among other things, includes strengthening the awareness of citizens, vulnerable and special targeted social groups about dangers and measures for protection and the use of the number 112, as well as public information and cooperation with the media. The above-mentioned Law also defines informing the public about the possible occurrence and development of a disaster, which is carried out by the Directorate of Civil Protection, competent services of other state administration bodies, bodies of local and regional (regional) self-government units and other professional services in their area of competence. It is important to emphasize that informing the public must be timely and accessible to everyone. This Act obliges the media, through which this information is published, to cede free of charge the use of the services of their communication network, that is, the communication system for the transmission of signals and information, and to publish official announcements.

4.1. *Alarm and notification system*

The Regulation of the Government of the Republic of Croatia on uniform warning signs (2016) prescribes the signs for warning the population, fire and other civil protection units, the issuance of public notices and the way to familiarize the population with the warning signs.

Signs to alert the population are signals and are broadcast via sirens as follows:

-  Warning of impending danger
-  Immediate danger
-  End of danger
-  Fire alarm

The Rulebook on the procedure for alerting the population (2016) stipulates that sirens, public address devices, electronic media and SMS messages through the system for early warning and crisis management (SRUUK) are used to alert and inform the population. The electronic media used for alerting and informing the population are also prescribed:

- 112 Radio and television stations that have a concession for broadcasting at the national level - for dangers significant for the state, counties, cities and municipalities,
- 112 Local radio stations and television stations - for the areas of counties, cities and municipalities
- 112 Websites of the State Administration,
- 112 Applications for smartphones and other devices.

In addition to the signs for alerting the population in case of impending and imminent danger, the competent center 112 provides a communication for the population about the type of danger and the measures that must be taken. Announcements for the population are broadcast immediately after the alarm signal has been given via sirens, public address devices, electronic media and SMS messages.

Warning and alerting is the most effective and cost-effective method in supporting the preparation of communities to cope with the consequences of extraordinary events, risk control and mitigation. The Directorate of Civil Protection uses the public alarm system to alert everyone in the affected area about the disaster and major accident. In order for the public announcement to reach as many residents as possible, it is necessary to use all available communication channels.

Figure 2 shows signs for alerting citizens and how they should be interpreted. They are posted in all public institutions so that citizens can recognize the danger they are being informed about as easily and quickly as possible.



Figure 2: Poster of warning signs

Source: <https://civilna-zastita.gov.hr/znakovi-za-uzbunjivanje/14>

The Rulebook on the Procedure for Receiving and Transmitting Notifications of Early Warnings, Immediate Dangers and Giving Instructions to the Population (2017) stipulates that the bodies responsible for giving instructions to the population about possible dangers and organized participation in the implementation of preventive and other measures and procedures to avoid and reduce the consequences of major accidents and disaster can use their own websites, social networks, SMS messages, media or other acceptable ways to send messages in the simplest and cheapest way and in the shortest possible time to reach the majority of end users.

In cases where it is necessary to broadcast announcements to the population, a Protocol on the method of communication between the Directorate of Civil Protection and Croatian Radio and Television was signed. This protocol sought to ensure fast and reliable transmission of press releases in informing and alerting the population in the event of a disaster or major danger of importance to the state, counties and cities, in order to reduce the risk of the consequences of accidents or disasters. The protocol is applied to alert and inform the population through the first program of Croatian Radio and Croatian Television throughout the territory of the Republic of Croatia.

4.1.1. Warnings of dangerous weather phenomena

The Service for Weather Analysis and Forecasts of the State Hydrometeorological Institute issues weather forecasts and warnings of dangerous weather phenomena. There are warnings for extremely strong winds, heavy rain, heavy snow, ice, the possibility of thunderstorms, extremely high and extremely low air temperatures, fog and flooding. This category also includes warnings about the increased risk of forest fires, i.e. fires in open spaces. The aforementioned warnings are issued by the State Hydrometeorological Institute for the general public via the Internet, television and radio, and newspapers. Since the National Hydrometeorological Institute has a long-standing cooperation with Croatian Radio and Television, in the information program of Croatian Radio, that is, Croatian Television, there is a daily possibility to warn listeners and viewers about possible dangerous weather phenomena.

Warnings occupy a special place in the system of the Meteo Alarm project, in which the State Hydrometeorological Institute is included as the national service in charge of warnings of dangerous weather phenomena. The warnings made within the mentioned project are available on the website www.meteoalarm.eu and they serve above all travelers and tourists in Europe and the world who can get information about the probability and intensity of the occurrence of dangerous weather phenomena in different regions of the project's member countries. The gradation of the intensity and probability of occurrence of a dangerous weather phenomenon contains 4 levels: green (no need for warning), yellow (potentially dangerous weather), orange (dangerous weather) and red (extremely dangerous weather). Within this project, the State Hydrometeorological Institute issues warnings for wind, rain, snow, ice, thunderstorms, extremely high and extremely low air temperatures and fog. The amount of rain also means the possibility of flash floods. Warnings are also prepared for special users, primarily for the Directorate of Civil Protection, the Croatian Fire Brigade, the Fire Operational Command of the Croatian Army, Croatian Water, etc.

4.2. Survey on the influence of social networks in crisis situations

As part of this work, online research was done through a self-made survey. The questions were formed in such a way as to check how social networks affect public sector announcements in the field of security with the aim of proving the hypothesis that in addition to announcements there must also be mutual communication that should raise awareness of the

significance of possible dangers and their consequences, and their impact on people and the environment. The sample analyzed consists of 40 respondents who answered 6 questions, including demographic questions about the respondents themselves.

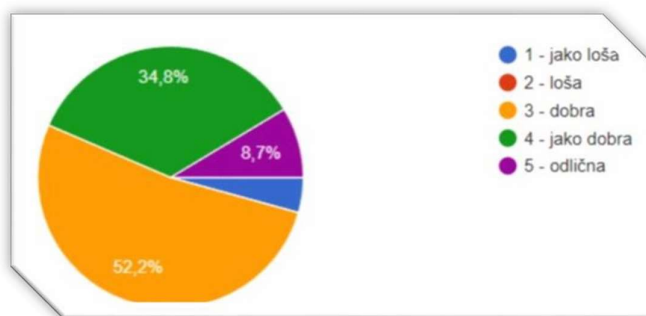
4.3. Demographic characteristics of the respondents

Out of a sample of 40 people who participated in the survey, 15 people were female while 25 were male. The majority of respondents belong to the age group of 26 to 40 years, which is 60.7%, followed by 18 to 25 years, which is 39.3%. There were no respondents over the age of 40, probably because the survey was conducted exclusively online.

The majority of respondents have a secondary education, that is, 41.5% of them; 4.5% have a higher vocational education, and 20.8% of the respondents have a higher vocational education, while 5.2% of the respondents are unqualified. Most respondents are employed, i.e. 64.2% of them; 18.8% are students, while 20% are unemployed.

4.4. The communication network of the Directorate of Civil Protection

As part of this work, online research was done through a self-made survey. The questions were formed in such a way as to check how social networks affect public sector announcements in the field of security with the aim of proving the hypothesis that in addition to announcements there must also be mutual communication that should raise awareness of the significance of possible dangers and their consequences, and their impact on people and the environment. The sample analyzed consists of 40 respondents who answered 6 questions, including demographic questions about the respondents themselves. The Directorate of Civil Protection most often communicates with the public through posts on its website <https://civilna-zastita.gov.hr/>: (Graph 1: shows the effectiveness of the Directorate of Civil Protection's website in communicating and issuing information to citizens) and through profiles on social networks Facebook and Twitter (X). The Facebook page is followed by about 33,000 followers, and Twitter (X) by about 9,000 followers. By visiting these pages, it can be seen that communication is mostly one-sided, mostly only information is published, which is shown by the results of 52.2% of respondents who stated that information is available, but any comments are mostly not answered.



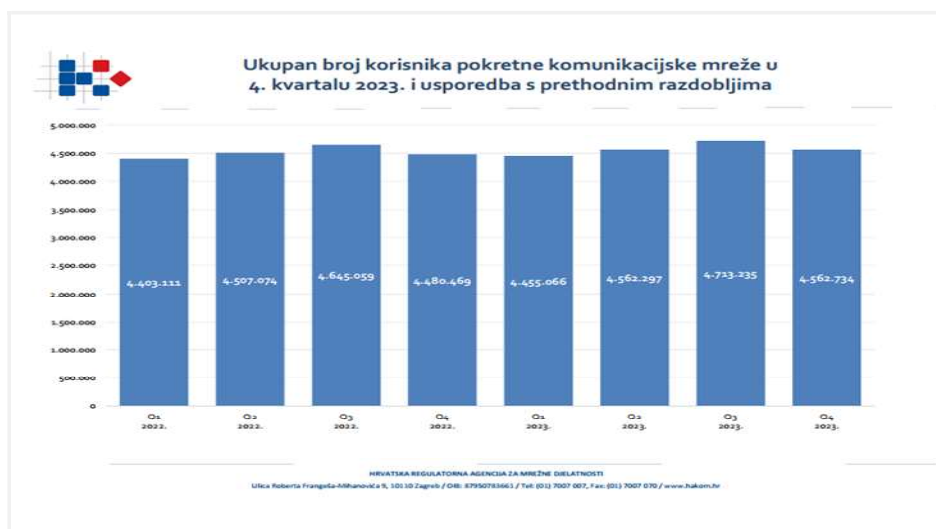
Graph 1. Effectiveness of the website of the Directorate of Civil Protection - communication and information

Source: Authors - online survey

5. RESEARCH ANALYSIS

In the last thirty years, crises have been a frequent occurrence in our region. A key and unavoidable part of marketing is communication, and in crisis situations it refers to information management (Kešetović i Toth, 2012). A crisis is characterized by pressure that arises due to lack of time. In a crisis, communication with the public is extremely important, because negative announcements in the media can significantly harm the organization. A very important factor in the communication process is the purpose of communication, that is, what the sender wants to achieve with his message (Mihalinčić, M., 2018).

Today, in the field of communication, electronic means of communication increasingly prevail, classic media are gradually being replaced by digital forms of communication (Graph 2: the total number of mobile communication network users in 2023 is about 4,562,734 users) where the smartphone is the starting point, and social media represent portal for access to various contents, of which the contents of electronic publications are only one part of the continuous flow of information. The question of how important are announcements about crisis situations on social networks, most of the answers were that it is important to them. It is considered very important by 9.9% of respondents, somewhat important by 36.3%, neutral by 39.6%, somewhat unimportant by 5.5%, while 8.8% of respondents consider it unimportant. Traditional media preferred one-way communication from one sender to many recipients, while modern electronic media offer the possibility of mass communication from everyone to everyone. The role of traditional media is gradually decreasing day by day, while the role of social networks is also growing.



Graph 2. Total number of mobile communication network users in 2023.

Source: https://www.hakom.hr/UserDocsImages/2024/e_trziste/KVA%20HRV%20Q4%202023%20broj%20korisnika%20telefonskih%20usluga%20u%20pokretnoj%20mrezi

By creating its own page on social networks, the organization creates a basis for connecting with the public and in this way spreads a word of mouth message to its followers (Graph 3: shows the results of a survey on the question of whether a unit of local, district, regional self-government informs its population). If the publication interested the respondents, a small number of respondents (8.8%) would not inform others about it, the majority (26.1%) would sometimes, while 65.2% of respondents would necessarily inform relatives, friends or colleagues about the page.

The more followers a certain social media page has, the greater the potential for reaching the target audience.



Graph 3. Informing the population in crisis situations by the JLP(R)S

Source: Authors - online survey

In case of impending and immediate danger, after the alarm signal, the competent center 112 gives a notification to the population about the type of danger and the measures that need to be taken. Announcements for the population are broadcast through sirens, public address devices, electronic media and SMS messages. Alerting and warning the population is the cheapest and most effective method in preparing the social community to effectively deal with the consequences of extraordinary events and mitigate the consequences. In order for the public announcement to reach the largest number of inhabitants in the shortest possible time, it is necessary to use all available communication channels. The Directorate of Civil Protection also has its own profiles on social networks such as Facebook and Twitter. The Facebook page mainly publishes information that is also available on the web. page. There are similar announcements on the Twitter profile. For such an organization, profiles on social networks have a relatively small number of followers or followers. Communication is mostly one-way, visitors' comments are rare, and when a comment appears, especially a negative one, there is no reaction, which should certainly be changed if communication with the interested public is to be improved. Furthermore, taking into account the number of followers on social networks, it can be assumed that greater reach would be achieved if each county center 112 had its own page on the social network, because people connect more easily and quickly if they know each other, that is, if they follow local events.

In certain crisis situations, it is possible to expect that the radio and TV signal, both at the national and local level, may be unavailable, either due to a power outage, or due to other circumstances caused by extraordinary events. It should also be borne in mind that in the event of an earthquake, flood, etc. recommends to the population to leave residential buildings.

6. CONCLUSION

Starting from the fundamental goal of marketing, which is to meet the needs of consumers or users of services, it is necessary to implement marketing principles in activities that are not market-oriented, as is the case here, in a state administrative organization, all with the aim of meeting the needs of residents for timely and accurate information in crisis situations, as well as information of an educational nature that would act preventively in order to reduce extraordinary events. The public sector is financed from budget funds and it is certainly

important that public funds are used as efficiently as possible.

The Internet is a powerful medium through which information can be transmitted to the interested public very quickly, successfully and cheaply, and this is particularly important in crisis situations. Given that this communication can take place in two directions, feedback from citizens on what was and what was not successful can be obtained very quickly, and possible omissions can be corrected very quickly.

Given that more and more mobile devices are used to access the Internet, it is necessary to optimize the website for mobile devices, which is particularly important in crisis situations when the stability of critical infrastructure may be disrupted. In crisis situations, it is particularly important to manage information on social networks, because in the absence of accurate and timely information, untruths can spread, which can lead to panic among residents.

Information on social networks in crisis situations spreads at an incredibly high speed based on the principle of word of mouth. Social networks enable the dissemination of not only written information, but users of social networks share photos and videos from the scene. The most common information that users look for on the Internet is from the sphere of daily events, that is, news. It is assumed that in the future multimedia communication connected with social networks will occupy more and more space in informing the public.

7. LITERATURE

- Voloder, I., Sučević D.: (2020). Corporate management, Zagreb: Lider
- media Kotler, P.: (2023). Marketing 6.0: The future is immersive
- Bernstein J.: (2020). Crisis management, Zagreb: Mate
- Vranešević, Tihomir; Došen Ozretić, Đurđana; Pavičić, Jurica; and other authors (2021). Basics of marketing
- Mihalinčić, M.: (2018). Crisis management and communication, University of Velika Gorica
- Kešetović, Ž. - Thoth. I.: (2012). Problems of crisis management, University of Velika Gorica
- Novak, B.: (2001). Crisis communication, Zagreb: Binoza press
- Osmanagić Bedenik, N.: (2003). Crisis as a chance, Zagreb: School book
- Pavičić, J., Gnjidić, V., Drašković, N. : (2014) Basics of strategic marketing, Zagreb: Školska knjiga
- Perko Šeparović, I.: (2006). Challenges of public management and dilemmas of public administration, Zagreb: Golden marketing - Technical book
- Ružić, D. Biloš, A. Turkalj, D.: (2014). E-Marketing, Osijek: Faculty of Economics in Osijek
- Varga, M. Strugar, I.: (2016). Information systems in business, Zagreb: Faculty of Economics
- Rulebook on the procedure for alerting the population, Official Gazette 69/2016
- Rulebook on the procedure for receiving and transmitting notifications of early warning, imminent danger and giving instructions to the population, Official Gazette 67/2017.
- Regulation on unique warning signs, Official Gazette 61/2016
- Law on Civil Protection System, OG 82/2015, OG 118/2018, OG 31/2020, OG 20/2021, OG 114/2022

Online sources:

- Directorate of Civil Protection (2024, June): <https://civilna-zastita.gov.hr/>
- HAKOM (2024, June): <https://www.hakom.hr/hr/izvjesca-strucna-misljenja-strategije/2064>