<u>**Research Article**</u>

Information Model in Crisis Management from the Perspective of Media Experts

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ABSTRACT

The media is a tool for establishing and maintaining social relationships as well as sharing and creating information in human communication. Today's media and their possibilities have an impact on how crisis information is disseminated and updated. This article presents the information model in crisis management from the perspective of media experts with regard to media, communication, and crisis issues. After an extensive review of the research literature, interviews were conducted with 15 media experts who were selected by the snowball method. According to the obtained results from data analysis and coding of interviews, the obtained model showed the role of media information in crisis management consisting of four stages.

Keywords: Crisis Management, Information, Media, Model, Theme Analysis

INTRODUCTION

The mass media of any country is one of the most important cultural infrastructures that have a great impact on interaction with other infrastructures and components of development. Today, mass media (especially television) have a great impact on societies, which has made them the dominant source of shaping social realities (Amirshekari et al., 2014). The media have shown their presence in all areas of society, including politics, economics, culture, etc., and play an important role in the life of societies. The media have an important role in creating crises due to their extensive capabilities in attracting large audiences and the ability to shape public opinion, which have become an integral part of crises (Roshan Del Arbatani, 2008).

In general, a crisis is an unexpected event that causes a sudden change and creates a difficult situation, and special measures different from the normal situation are used to manage it. In the new definition of crisis, various divisions including the involvement of the human factor in it, different levels of crisis, geography, level of the crisis, etc. have been examined. The proper crisis management is inevitable to reduce the damage caused by the crisis and can be used to create the conditions for exit from the crisis and create a suitable platform to return to normal.

In disaster-prone countries, an average of 3% of gross domestic product (GDP) is spent on compensation for natural disasters. The damage from emergencies is estimated at $ 70,000 billion annually. In natural crises, there is a possibility of damage to infrastructure, although in this regard, the necessary predictions are usually made before the construction of this infrastructure, but in new wars, due to the importance of the vital infrastructure of each country, the first points to be attacked are these infrastructures, especially in the field of energy (Khadem al-Mulla, 2013).

Developing an effective action plan for dealing with a variety of natural disasters is part of crisis management, which determining the levels of crisis caused by an accident is necessary to formulate that these levels are different for different organizations and times (Tokakis et al., 2019).

The crises often disrupt the network of interpersonal relationships and disrupt the functioning of social and service institutions. In these circumstances, the possibility of individual interventions and the provision of psychological services to people in crisis in practice is eliminated. Therefore, utilizing the capacity of the media to intervene at the social level and shape the relief environment can reduce the psychological effects of the crisis and create the conditions for improving the situation and moving towards the desired situation (Pohl et al., 2018). As a result, planning and decision-making are the first step and the most important and fundamental management actions in any organization. These two categories are doubly important in the media organization, which is responsible for producing and distributing news (especially in times of crisis, such as a natural disaster). In other words, a media organization can be an effective factor in controlling the destructive consequences of a natural disaster if its management is subject to flexible planning and reliable decision-making, such as the process of production and distribution of news by the media organization is adapted to the changing conditions of the crisis. Secondly, news decisions should be based on the maximum awareness of media managers about the news needs of the victims. The media management is very difficult in terms of producing timely, accurate, new, accurate and comprehensive information and news in the event of a crisis, because the occurrence of a natural disaster as a dangerous and insecure situation, disrupts the current life of society and the media and complicates the planning and decision-making of managers (Tingsanchali T, Keokhumcheng, 2012).

The media informs their audiences of the situation by providing accurate, timely, and documented news and information, and by examining expert views. Crisis shock can cause a disturbance in the sense of time and place and disrupt a person's personal focus. The accurate news and information can prevent people from mental breakdown and give them relative peace (Rosenkranz, 2016).

Some experts believe that one of the most beneficial ways to deal with stress is to increase enjoyable experiences, and the media can be an effective factor in achieving peace so that one can temporarily forget about one's problems. In critical situations such as natural disasters, the use of a suitable combination of sad and pleasurable materials and content can cause psychological refinement (Hashemi Petroudi et al., 2017).

In critical situations, communication tools help people to regain control of themselves and the environment by reusing many of their abilities that have been impaired or disrupted in critical situations by using their expertise and providing packages of urgent messages. In the first place, help people to rehabilitate themselves in control of themselves and the environment by re-reading many of the abilities of people who are weakened or disrupted in critical situations and providing necessary message packages by communication tools. Secondly, they teach their audience some necessary and emergency skills to eliminate or minimize the negative effects and consequences.

According to the above, information management is necessary to improve the crisis in which the policy-making, planning, and operation of mass media, especially radio and television, play an effective role (Zheng et al., 2018). Therefore, due to the importance of the subject and the lack of studies in this field, the researcher design a comprehensive model in the information field of crisis management from the perspective of media experts, and it achieved the expected competencies in the field of media in crisis management through its functions and consequences.

RESEARCH LITERATURE

Crisis
Crisis (from the Greek work of krinon) is any event that is going to lead to an unstable and dangerous situation affecting an individual, group, community, or whole society as well as a time of danger in political, social, and economic matters. The Persian encyclopedia "Amid" defines crisis as turmoil and change of state. Sudden change in the patient's condition leads to recovery or death. In other words, a crisis is a situation that causes a sudden change in one or more of the variables of a system. Crises are an integral part of human life and their diversity and multiplicity is increasing every day in all their forms (Shah Ahmadi, 2011). A crisis arises whenever a phenomenon for the purpose of flow should not cause a state of disorder or disorder or an abnormal state.

A crisis is a situation that disrupts the main order or parts of it and its stability. In other words, a crisis is a situation that creates a sudden variable in one or more parts of the system variables. In addition, crises have been described as situations of collective tension. Crises are defined as "opportunities for decision-making". Crises are acute events that may challenge the legitimacy of a government or organization (Faqihi, 2003). Crises are unpredictable and unexpected and affect all sections of society for a variety of reasons. In other words, crisis is a situation that causes a sudden change in one or more parts of the variables of the system (Ghanbari and Azaddoost, 2017). Emotional reactions to crises generally include disbelief, acceptance of failure, panic, shortsightedness, blaming, and hurting emotions. In each crisis, external factors and emotional reactions to the crisis act to different degrees (Tajzadeh Namin, 2016).

Crisis Management
Crisis management is a new science that can take various forms at the national, provincial, and urban levels (Azadbakht et al., 2017). The term of crisis management was first used in 1962 in the Cuban Missile Crisis to mean management in unpredictable situations. According to Pearson and Claire, crisis management is the systematic effort of members of the organization with stakeholders outside the organization to prevent crises or manage them at the time of occurrence (Mac Conkey, 1987). Crisis management is a process to prevent the crisis or minimize its effects when it occurs to carry out this process (Taherian, 2009).

Crisis management can be defined as the process of predicting and preventing the occurrence of a crisis, dealing with and intervening in a crisis, and recovering after the crisis. Crisis management is a dynamic military that has been designed with the aim of reducing the likelihood of a crisis and committeeing its effects and damages, as well as restoring the system to normal (Habibzadeh Maleki and Javadian, 2010).

Crisis Management Process
Four principles must be considered in crisis management: 1- prevention, 2- preparedness, 3- confrontation, 4- reconstruction.

1. Prevention: A set of measures assesses the level of risk in society and reduces the level to an acceptable level with the necessary studies.

2. Preparedness: A set of actions that increase the ability of society to perform the creative stages of crisis management and includes data collection, planning, organizing, creating management structures, training, providing resources and facilities, training and maneuvering.

3. Confrontation: It is carrying out emergency measures and services following a crisis, which is done by saving the lives and property of human beings, providing relative welfare for them and preventing the spread of damage. Confrontation operations include information, alert, search, rescue, relief, health, medical, security, transportation, communications, medical emergencies, burial, waste disposal, fire control, hazardous materials control, refueling, and other related emergency services.

4. Reconstruction and rehabilitation: Reconstruction is includes all necessary measures after the crisis to restore normalcy to the affected areas, taking into account the characteristics of sustainable development, safety criteria, male participation and cultural, historical, social issues of the affected area. Rehabilitation also includes a set of measures that are taken to restore the physical, mental, psychological and social conditions to normal (Samadi Miarkalai and Samadi Miarkalai, 2012).

Media and Crisis
Media means a group of devices that are considered by a large number of people and are manifestations of new civilizations. Media are any means that transmits the cultures and thoughts of others, and examples of it such as newspapers, magazines, radio, television, satellite, Internet, and so on. The media are divided into two categories: mass media and social media (Ghanbari and Azaddoost, 2017). There are generally two types of media used in strategic operations: slow media and fast media. Among these, the mass media are among the fast media, which are one of the basic factors in shaping public opinion and one of the appropriate social types in the category of crisis management of mass media. Mass media, including its various types, is one of the axes that need to be considered and processed in crisis management (Amirshakari et al., 2014).

The dual role of the media in creating crisis and de-crisis is obvious to crisis experts. Today, when a crisis occurs in the age of communication and information, the question that arises is whether the media will provoke a crisis or take action to control it. In other words, while the media can be a tool to de-crisis or reduce its effects, they can be a tool to create a crisis and exacerbate the crisis. "The influence of the media on political decisions and the reactions of audiences has become increasingly important", says Ballantine. Thus, the ability of the media to attract large audiences and participate in the process of shaping public opinion has given them considerable power to intervene in crises and conflicts and only a few governments can be proud of successful communication in times of crisis" (Salavatian and Roshandel Arbatani, 2011).

Thus, the mass media have the potential to intensify and even create crisis, but in the case of the desired media, such as our national media with public service aspect, it is more the functions of the media in critical situations than its dysfunctions. As a result, the media can have a tremendous impact on all stages of the crisis and on the types of crises defined by the dimensions. In the pre-crisis phase, the function of media education and culturalize is more important. Through their environmental monitoring function as well as interpretation, the media can identify potential and emerging crises in the national environment and warn officials and agents. In the crisis phase, the information and news function of the media as well as public participation is more important because crises are the place of rumors and in order to guide public work, they must be informed in a prudent way. Finally, the role of the media in the post-crisis phase is also significant. At this stage, the

media are expected to monitor the process of repairing and improving the situation more through their supervisory function, and by analyzing the dimensions and roots of the crisis, to prevent similar crises (Amirshkari et al., 2014).

The media function in different stages of crisis management
The media have very important functions in different dimensions of the crisis and their participation is essential for the optimal management of the crisis. The important functions of the media in crisis management are included public education about the crisis, warning about the dangers, collecting and transmitting information about the affected areas, informing the special needs of the affected people to government agencies and relief organizations, providing the opportunity to discuss the correct way to prepare and respond in the event of a crisis at the community level. The media can also identify potential and emerging crises in the national environment and warn officials in the pre-crisis phase through the function of environmental monitoring and interpretation. At this stage, television plays the best role because this medium has a high educational power based on the image and radio and print media play a complementary role to television.

In the stage of crisis, the information and news function of the media as well as attracting public participation is more important, because crises are the place of rumors and in order to guide public work, they must be informed in a prudent way. Undoubtedly, information is the most clear and principled role of the media in dealing with the crisis (Quarantelli, 1991).

In the post-crisis phase, different methods such as strengthening the people's morale and society, providing appropriate analysis along with the necessary training to prevent re-involvement in subsequent crises, utilizing experiences gained in various news, reporting and analytical formats, and finally active presence in the formation of public opinion for the benefit of the people can be considered as a useful solution for healthy and natural crisis management by the media (Salavatian and Roshandel Arbatani, 2011).

Research objectives
Main objective
Designing an information model in crisis management from the perspective of media experts
Sub-ordinary objectives
1. Identifying the components of media information in the pre-crisis stage from the perspective of media experts
2. Identifying the components of media information at the beginning of the crisis from the perspective of media experts
3. Identifying the components of media information in the crisis phase from the perspective of media experts
4. Identifying the components of media information in the post-crisis phase from the perspective of media experts

METHOD

The research method is to collect and interpret data so that the resulting ambiguity is minimized (Taleghani and Almasi, 2011). One of the characteristics of a scientific study with purpose of finding the truth is the use of an appropriate research method and the choice of the appropriate research method depends on the objectives, nature, subject matter and implementation possibilities and the purpose of

research is accurate and easy access to answers to research questions (Sarmad et al., 2010). This research is qualitative-exploratory. The main purpose of exploratory research is to identify a situation about which there is no necessary knowledge. The qualitative research is also a comprehensive method that considers human beings in the environment and with all its complexities and it studies the whole subject, unlike the quantitative methods that deal with a part of a phenomenon. In qualitative research, the researcher seeks to answer questions such as what, why and how. In other words, the researcher seeks to obtain information, which he can know the subject of the research well. Some experts have also called exploratory research as estimative research. According to them, no hypotheses are proposed and tested, but only to obtain an estimate of a particular problem.

In this study, the statistical population is a collection of media experts who have been active in related fields for the past ten years. Due to the importance of the answers and the need for sufficient knowledge of various aspects of the subject, the selection of experts to answer the questions has depended entirely on their expertise, experience, and organizational position. To select the interviewees, a list of communication experts and media outlets were firstly prepared who had expressed their views on the subject of this research in different ways. From the list, a core was selected and the first interview was conducted as "The Most Informed Person". After that, the interviews were continued using theoretical sampling and snowball method. Semi-structured interviews were used in person to collect data. In this type of interview, the interview questions were pre-identified and all respondents were asked the same questions, but they were free to submit their answers in any way. According to the material presented by the interviewees, more questions were asked by the researcher to expand the topic during the interview. The duration of the interview was between 30 and 50 minutes, depending on the willingness to answer. Since the principle in the qualitative research method is based on theoretical saturation, the statistical population of this research consisted of 15 experts and researchers in this field.

According to the research method, each interview is implemented and converted into text as soon as possible. Then, this written text was placed in the form of a column of comments by preparing the coding tables, and the comments or the same data were coded in three main stages (open, axial, and selective) based on the method of grounded theory. It is noteworthy that with the completion of open coding for all interviews, in the axial coding stage, the first interview was coded and the subsequent interviews were coded based on the obtained codes and the technique of constant comparisons. Based on this, the codes obtained from the previous interviews were considered and the same codes were placed in the form of the same code. Also, due to the researcher's theoretical sensitivity to coding, some of the issues raised in the interviews were completely interviewed and prevented from going beyond the intended purpose.

FINDINGS

In this study, four basic questions were asked to achieve the research model by the views and opinions of media experts on the media information model in crisis management and based on the objectives of the research. According to the analysis of the interview data, a summary of the interviews and the extracted codes in the four crisis stages are given separately in Table 1.

Summary of joint interview quotes	Main theme	Crisis stages
Environmental monitoring, identifying high-risk places from a geological and geographical point of view, having complete information about climatic and geographical locations of areas such as rivers, updating geographical information of the region, recognizing the demographic structure of the region, identifying existing and future threats	Forecast	Pre-crisis
Holding maneuvers to predict behaviors, simulate situations for measurement, increase the establishment of an equipped information center, warn through television programs, warn of potential crises to officials, plan and train	Prevention	

manpower, warn of dangers, transparency of information and their expressiveness		
Broadcasting documentaries related to the crisis through local networks, encouraging people to cooperate and empathize with each other, creating readiness through education, broadcasting expert programs to inform the people, educating and culturalize among ethnicities, creating interaction, holding conferences and specialized roundtables	Readiness	
Proper warning, information coverage, timely and accurate information, continuous monitoring of the situation, creating preparedness in the people and reducing the risks in case of crisis	Warning	**Beginning of the crisis**
Mobilizing people, building trust, helping indigenous people, welcoming volunteers, calling in volunteers, media cooperation with local people, public participation	Resource mobilization	
Continuous review of the situation, crisis education, prevention of conflicts of interest, confrontation with rumors, prioritization of emergencies, continuous control and monitoring, application of experiences, rapid presentation of solutions	Fast response	
Rescue operations, safety and security management, rescue skills, equipping bases, establishing operational bases, advertising to create a first aid collection campaign	Relief and Rescue	**In the crisis**
Mobilization of grassroots groups, accurate and clear reporting, situation management, basic training for ordinary people and volunteers, prioritization of aid, continuous communication with the people, information of needs	Special operation	
Pay attention to time, keep informed, keep away from injured people, use the experiences of other countries, prevent the spread of contradictory conversations	Restraint	
Specialized assessment of damages, integration and cohesion between the people and the government, prioritization of needs, cooperation and coordination of organizations, cost estimation, securing the area, public call, allocation of funds for the provision of physical equipment and facilities	Recovery	**Post-crisis**
Informing the international community, rebuilding infrastructure, managing costs, managing resources, monitoring promises, strengthening solidarity with victims, time management, focusing on relieving survivors, relieving the suffering of survivors, maintaining the survivors, increasing self-reliance capacity	Rebuilding	
Storage of knowledge and experiences gained from the crisis, education, preparation of educational documents, assessment of the causes of the crisis, training for prevention, exploitation of experiences, identification of weaknesses in media actions, updating crisis management plans according to new crises	Learning	

As shown in the tables above and based on the research findings, the obtained model is shown in Figure 1.
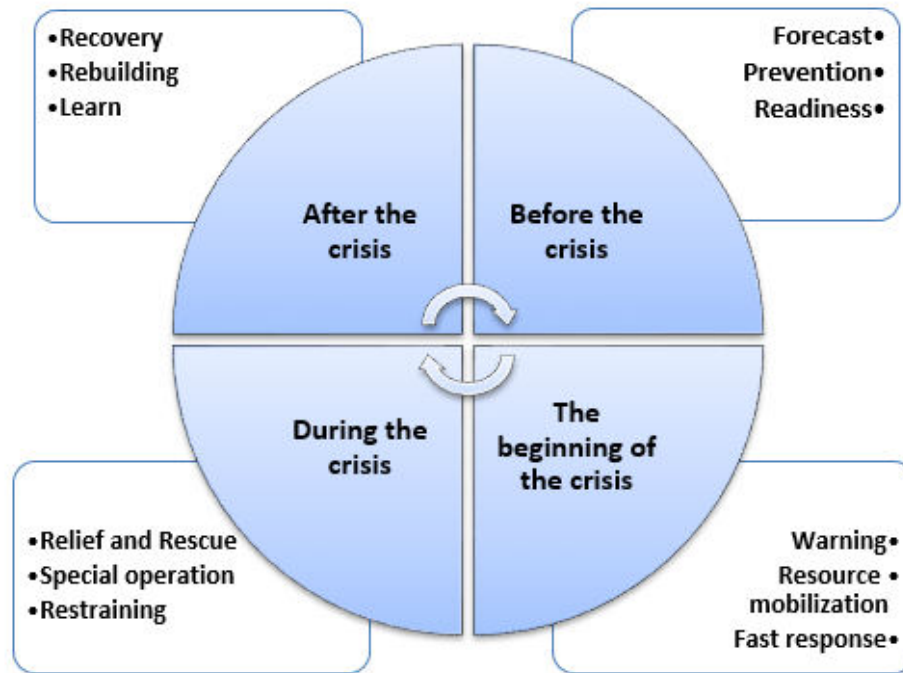

Figure 1. The final model of information in crisis management from the perspective of media experts

DISCUSSION

Today, most countries seek to use the media more to manage crises, because crises in all their forms are an integral part of human life, and their diversity and multiplicity is increasing. The mass media have also become an integral part of crises due to their influence and expansion in societies and in all aspects of human life. Media organization can be an effective factor in controlling the destructive consequences of crises if its management is subject to reliable planning, flexibility and decision-making, so that, firstly, the process of production and

distribution of news by the media organization is adapted to the changing conditions of the crisis, and secondly, news decisions are based on the maximum awareness of media organization managers about news needs (Soltanifar and Mortazavi, 2008).

The results of the analysis of the opinions of media experts showed that the role of the media in the crisis is not limited to a specific time and in all stages of the crisis: pre-crisis, crisis onset, in crisis and post-crisis, this role is greater. In the pre-crisis stage, the role of the media is in the three dimensions of forecasting, prevention, and education. Undoubtedly, the influence of the media on education is inevitable. With the advancement of science, the expansion of human societies, the dispersion of population and the importance of education in human life, both the need and the use of educational media and educational assistance has increased (Ahmadi and Goodarzi, 2016). In the initial stage of the crisis, which is specific to the period of practical emergence of the crisis in the society, the media identified informing the society in three dimensions of warning, mobilization of resources and rapid response. In addition, three dimensions of rescue, special operations, and containment were identified during the crisis phase. In the post-crisis phase, which in practice begins after the end of the crisis, three dimensions of retrieval, reconstruction, and learning were extracted from the functions of media information based on research. Crisis managers can take advantage of the media to capture human reactions to crisis information, because the media is a main channel and source of information and a platform for sharing experiences. These experiences can provide important information to crisis managers and make better decisions in the face of the crisis as well as the people. This model shows a comprehensive model of the role of the media in the four stages of the crisis, which in previous studies did not specify the role of the media in the early stages of the crisis.

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