

CRISES ANALYSIS AND MANAGEMENT

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Abstract

The concept of crisis is multidimensional, it indicates the presence of a difficult problem, that it is going through a period of anomaly and abnormal or they are in a critical phase. This article examines the definition of crisis, in along with its types, its characteristic and its main causes. In addition, this article goes through the several phases of crisis management, which is defined as the process by which a crisis is prevented, reduced or resolved.

Keywords: crisis; causes; types; characteristics; crisis management

JEL Codes: H12

1. Introduction

The concept of crisis is multidimensional, it indicates the presence of a difficult problem, that it is going through a period of anomaly and abnormal or they are in a critical phase. The term "crisis" usually refers to an unpredictable and uncertain situation, which is dominated by tension and insecurity and which may concern the individual, family, business, organization, society, institutions, or the international environment. The crisis often works as a test of the stability of a system (Stuckler et al., 2009; Maes et al., 2010; Liu et al., 2016; Chernobrov, 2016; Crouch, 2014).

According to Rosenthal and Kouzmin (1997), the concept of crisis is related to situations, which are occupied by a serious threat, uncertainty and a sense of urgency.

According to Okumus and Karamustafa (2005), crisis is a large, sudden event that is likely to have negative effects. The event and its consequences can seriously damage an organization and its employees, its products, services, financial situation and reputation.

Crisis situations have features such as surprise for the event, interruption of the routine, escalation of events accompanied by a feeling of loss of control, increased media interest (for the event) and their increased momentum to control the situation, the increased demand for information, the large number of speculations about the

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event, its view by the Media as a crisis and the spread of negative publicity (Ahmed, 2006).

Hence Fearn-Banks (2007) described the crisis as a massive event with a potentially negative impact on an organization, company or industry as well as the target audience, products, services and the "good name".

2. Classification of crises

Crisis is of different types, based on its characteristics and nature and involves different reactions and therefore different means of management.

The following are the main types of crisis:

Financial crisis:

The financial crisis occurs when the business is financially affected by the crisis. An example of a financial crisis is a business that does not have the funds to pay its fees, such as paying dividends, interest, repaying loans, etc. Such a crisis arises when the company suffers losses for significant periods of time or when due to lack of accountability it loses consumer confidence among other situations. This crisis is addressed by mobilizing the required funds as a short-term solution and by making important financial decisions such as restructuring, changing business activities, etc. as long-term solutions (Kindleberger & Aliber, 2005; Laeven & Valencia, 2008).

Technological crisis:

The technological crisis arises as a result of failures in the common scientific and technological tools and devices that we use in a business. If Facebook servers are overloaded and all user accounts and details are deleted, then such a crisis will be a technological crisis. Common technological crisis includes software failure, industrial accidents, etc. Conventional management tools mainly include limiting losses and stopping the effects of failure to affect more people or items. The next step will involve trying to recover what has been damaged or lost with the help of experts in the field and will also include finding the source and cause of the crisis (Ahmed, 2006).

Abuse crisis:

All companies compete with each other. However, some competitors take such extreme measures that they actually try to go under the belt and destroy the other company for their own success. The crisis that occurs as a result of the extreme tactics used by a competitor or criminal to destroy the business is known as a crisis of abuse. These crises include those that arise through the breach of a company's server, breach of their products, etc. Measures include finding the source and minimizing damage as soon as possible by identifying who perpetrated the crisis (Ahmed, 2006).

Physical crisis:

Physical crisis refers to those that are created as a direct result of a natural event, such as a volcano or an earthquake, etc. These crises are completely out of the hands of the administration and cannot be prevented, unlike the other crisis. Crisis

management steps include evacuating the area and taking mitigation measures as precautions such as constructing earthquake-resistant buildings, preparing evacuation plans, etc. *ex ante* (Bankoff et al., 2003).

Crisis of organizational crimes:

The Crisis of Organizational Misdeeds includes (Ahmed, 2006):

1. Crisis of deception
2. Crisis of Remarkable Management Values
3. Judgment of Corrective Unjust Law

The crisis of deception is the result of concealing important information from management or consumers from management. This is done in order to make illegal profits from the business and to gain unjustified wealth. This concealment often causes huge losses in places where such events are hidden.

3. The Main Causes of Crises

Every crisis is characterized by the factors that cause it. Based on the factors, the management plan of the respective crisis is formed. The main categories in which critical situations are classified are four depending on the causes of the crisis, which may come from internal or external factors of the organization and may be characterized as technical-economic or human-organizational social factors (Shrivastava & Mitroff, 1987).

Regarding the theory of international relations, Michael Brecher states that the reasons that can cause a change in relations or an increase in tension between two or more states, in order for an international crisis to occur, are (Brecher, 1993):

- An action or event,
- An oral or written threatening statement,
- A political action such as the severance of diplomatic relations,
- An economic action such as a trade embargo,
- Non-violent military action such as troop movements,
- An indirect act of violence against an ally or client state,
- An immediate military attack,
- An internal challenge to a regime (verbal or physical, or an action to strengthen the position of the rulers),
- A technological or geopolitical change in the environment that weakens a state's ability to protect its vital interests, including its independence.

According to Manolis Sfakianakis, these causes may be financial, organizational, administrative, commercial, competitive, legal, force majeure, etc. In particular, Manolis Sfakianakis classifies the causes of a business crisis as follows (Sfakianakis, 1998):

- Financial causes (adverse financial results, excessive borrowing, debt accumulation, large-scale theft and abuse, incorrect wage and pay policy, incorrect pricing policy, waste and excessive spending, etc.),

- Organizational causes (dysfunctional organizational structure, overcrowded staff, insufficient staffing, insufficient production organization, inappropriate investments, extensions, incorrect reorganizations, insufficient health and safety measures, accidents at work, losses, etc.),
- Administrative causes (insufficient administration, death or departure of an important executive, disputes, staff strikes, disputes with trade unions institutions, disputes with agents, shareholders, investors, notoriety, scandals, etc.).
- Commercial causes (decrease in customers, sales, orders, excessive and sudden increase in raw material prices, poor quality or defective or dangerous products, delays in meeting demand, insufficient distribution network, insufficient advertising and market research, etc.),
- Competitive causes (intense competition, defamation and false publications, misleading competitors' advertisements, industrial espionage, attempts to alienate share capital by competitors / acquisition or merger attempts, etc.),
- Legal causes (legal, labor, tax, insurance violations, disputes and disputes with the local population, organizations and organized interests, etc.),
- Causes due to force majeure (natural disasters, technological disasters, terrorist acts, fires, environmental pollution through the fault of the company, etc.).

4. Crisis characteristics

Every crisis, regardless of its form and the organism in which it is created, is characterized by the following (Ahmed, 2006):

1) It is escalating in intensity. The situation of a crisis is dynamic. The emerging crises do not manifest from the first moment with their greatest intensity, but escalate.

2) There is a high sense of insecurity and danger. During the crisis, those involved are overwhelmed with anxiety, as they feel they are losing control of the situation.

3) The usual functions and rhythms are affected. The intensity and concern for the worst "scenario" of the development of the events, disturb and change the normal orderly operation of the business.

4) The public / international image of the unit / country is endangered. The consequences of any emerging crisis usually affect the "image".

5) It will be thoroughly checked by the competent state-transnational bodies and by the Mass Media. The manifestation of a crisis inevitably arouses the interest of the competent bodies, but also of the media, as there is an increased demand for information, in order to restore the speculations about the events.

6) Causes damage and property damage. It usually causes moral damage, which damages the power of the country, or the profile of the company, while at the same time causing a malfunction in its commercial activity.

5. Crisis Management

Crisis management is the process by which a crisis is prevented, reduced or resolved (Ritchie, 2004; Baldwin, 1979; Jaques, 2009).

Also, with the crisis management technique is meant the minimization of risk and uncertainty with the ultimate goal of controlling every situation. These are measures aimed at reducing unpleasant situations and preventing them from spreading further (Jaques, 2007; Christensen et al., 2016).

The process of managing a crisis is detailed as it involves making serious decisions. The factor that complicates this process is that these decisions need to be made under pressure and time constraints due to the variability of the environment and a set of busy people working in a context of uncertainty (Moynihan, 2008; Ansell & Boin, 2017; Uitdewilligen & Waller, 2018).

Crisis management is a continuous investigation and analysis of the threats that can harm the company in order to minimize the uncertainty and take all appropriate measures before the crisis and as soon as the crisis breaks out and to provide security to employees and as much as possible to keep intact the image and financial situation of the company (Shivakumar et al., 2011; Johansen et al., 2012; Henderson et al., 2019).

Every business, large or small, public or private, whether it produces products or offers services, is not meant to enter the 21st century without a basic parameter. The board of directors of the company must organize the structure of this parameter, which is the Crisis Management Committee (CRC) (Unlu et al., 2010; Gruber et al., 2015; Christensen et al., 2015).

6. The Main Phases of Crisis Management

The steps taken to deal with the crisis include five phases. These phases are presented as following:

- The first phase is the forecast. During the current phase, the actions related to crisis forecasting are included.

- The second phase is the phase of prevention. During this phase the actions taken to prevent the root cause of the crisis are included.

- The third phase is the phase of operation. At this stage, the measures are created to deal with the crisis before it occurs, while they are preparing for implementation as soon as it breaks out.

- The fourth phase is the phase of reconstruction. The reversal or recovery strategy is built in order for the business to return to its normal course.

- The fifth phase is the phase of research. During this current phase, the reasons for the crisis are analyzed and the way they are managed is evaluated (Seeger et al., 2005).

Particularly important in the context of crisis management by organizations is the prevention phase. This phase includes actions taken to reduce the consequences of a crisis. Prevention activities aim to identify and predict, at best, possible future crises. It consists in identifying the vulnerabilities and functions of the organization and in taking dynamic measures to fill the «gaps» that are identified. These actions consist in the study and review of the current situation. At this stage, the potential hazards and critical parameters are identified (Alkhawlani et al., 2016; Rolka, 2018).

Then, at the context of the same stage, the significance of the risks is assessed. More specifically, the potential risks are assessed in order of gravity. Also included, is the study of worst-case scenarios, as for example the analysis of scenarios and models for predicting risks and crises. Similarly, the study of past situations is included, as for example the retrospective study of similar crises and emergencies. Then there is the search for additional know-how, as for example the identification of specialized people - executives, consultants and associates - required for each possible crisis, as well as the definition of a reliable method of continuous evaluation (Coccia, 2020).

In general, it is impossible to prevent crises altogether. However, prevention efforts increase the likelihood of avoiding or reducing the severity of their consequences. Prevention measures are essential and necessary in order to suggest and direct the activities in the preparation stage of crisis management (Ghio et al., 2020).

The preparation phase of crisis management includes all the measures taken to ensure the capacity to respond effectively in a time of crisis. The preparation activities consist of the planning, in terms of functions and communication, of the main reaction parameters, of the way of management, of the resources required, as well as of the training and the pilot implementation of the action plans (Coombs & Laufer, 2018; Rolka, 2018).

The designation of collaborators to be used during the crisis, also implies the organization of communication channels between the head of the department, or team, and the collaborators, as for example individuals, groups or other organizations. Also, the leadership team should communicate the relevant plan to its partners and all together to harmonize with the approved management program. These relationships and the reciprocal agreements, that will take place before a crisis occurs, are sure to help optimize methods and ultimately coordinate events (Ley et al., 2014; Ginige et al., 2014).

The importance of the installation of the system is also special. The system that will emerge from the above analysis must necessarily include all the necessary resources and other infrastructure, which will ensure that during the crisis, the system and consequently the organization itself, will be operational. The components of the system are the infrastructures of the organization, such as the facilities, the logistical infrastructure and other similar elements, the available resources, as for example the financial resources, the credit capacity, the available stocks and other similar elements, the human resources of the organization, as for example trained staff and available response teams, emergency response teams and rehabilitation teams (Engelbach et al., 2014).

Of course, it is considered necessary for the administration to assure that all of the above are available in advance and that the equipment, that has been provided, is operational at all times. At this point, it is emphasized that the «immediate response» equipment, which should be available, concerns the predetermined location of the crisis management team, the available communication equipment, such as telephone lines, mobile phones, and also backup systems and support staff (Al-Dahash et al., 2014; Bowers et al., 2017).

In any case, regardless of the crisis caused, the plan drawn up, like any other corresponding plan, can very easily prove to be useless and ineffective if it is not tested, simulating the real conditions. By itself, it is possible to give the agency management a false sense of security and, of course, a false impression of the levels of preparation and readiness. In order to avoid keeping a plan «on paper», it is necessary to periodically implement the prescribed measures and actions with the participation of the crisis management team and all the rest of the staff involved. However, before any exercise, all participants should receive the appropriate training in the issues related to the implementation of the plan (Doumouras et al., 2012; Bellomo et al., 2016).

The training and the pilot application of the crisis management actions will mainly contribute to maintaining a high level of readiness, to familiarizing the staff with the coping plans, such as functions and communications, to confirming that all stakeholders know their role in the plan and their responsibilities and obligations, to practical implement the provisions of the plan, and to create opportunities for discussion and exchange of views (Hart & Sundelius, 2013).

During the exercise and regardless of the magnitude of the simulated crisis, the top management of the organization must necessarily be actively involved in it, as it is the one who at a given time will be called to decide, or not, the activation of the plans and taking, in a real situation now, countermeasures (Schraagen et al., 2010; Christensen et al., 2016; Coombs & Laufer, 2018).

Each simulation exercise should be followed by a thorough discussion and drawing conclusions about what went well and what did not. This discussion will provide an opportunity to review the plans, both at the level of infrastructure and at

the level of human resources, with possible redeployments or redistributions, in terms of the assigned responsibilities and obligations (Doumouras et al., 2012; Bellomo et al., 2016).

As part of the response phase, actions are taken by the organization in an effort to control the consequences of a crisis. These actions have, as their main goal, the mitigation of the negative effects and results of the crisis and it must be understood that they must be continuous, repetitive and simultaneous, due to the uncertainty surrounding the crises and emergencies. This phase and the actions taken are characterized by a set of coordinating actions and methods of communication, which depend directly on the nature and severity of the crisis (Van Wart & Kapucu, 2011).

The response phase can be characterized by three distinct steps. Initially, there is a process of assessing the situation. More specifically, the assessment of the situation consists primarily in the collection, assembly of information and the control of the reliability of data sources. This initial step will contribute decisively to the assessment of the nature of the crisis, thus determining the part of the organization that will take action. According to the result of the evaluation and given the level of power that has been granted, the response and communication plans will be activated, if this is deemed necessary. This phase will characterize the crisis, its evolution and its consequences. Oligarchy or devaluation of the situation brings disastrous results (Haddawy et al., 2015; Schwarzer, 2015).

This step is followed by the activation of the operational response plans, which presupposes the immediate establishment of the response team envisaged by them. It is usually accompanied by direct communication with other internal or external factors in order to determine the priority of actions. The lead department immediately submits short-term solution proposals, which will reduce the risk and minimize the damage caused. This point in time is not suitable for permanent and long-term solutions (Israeli et al., 2011; Jessop, 2012).

Activating the communication plan is the next step and initially consists in the short time preparation and recording of the official position of the head of the organization. The next immediate steps include identifying or investigating the current state of interest in the media, selecting the appropriate, if not predetermined, person to be appointed as a spokesperson, assigning tasks with full and detailed information about the event, the parties involved and the positions of the organization, the compilation and coordination of the transmission of the agreed message of the organization and finally, the preparation of the information requested or to be requested by the media (Alexander, 2013).

The response given to the media will identify and explain the subject matter of the problem and assure the public that immediate action has been taken to control the situation. The lead department should maintain constant contact and communication with the internal and external public throughout this period, in order to provide

appropriate and correct information (Ucaktürk et al., 2011; Johansen et al., 2012; Alexander, 2013; Henderson et al., 2019).

An equally important phase of crisis management is the recovery phase. The recovery and rehabilitation phase consist of a variety of actions, which are undertaken as a consequence and result of the crisis. These actions include, initially, the official statement - announcement of the organization, which announces the end of the crisis and the maintenance of contact with the media and the collaborating bodies and organizations, as well as the provision of support to its members, but also the evaluation and utilization of the acquired knowledge (Ristvej & Zagorecki, 2011).

Return to normal operation requires a formal statement to end the crisis. Despite the fact that the situation is gradually moving away, the department that had taken over the management of the incident must remain in contact with the media and other collaborating bodies and organizations. This will enable the design and implementation of medium- and long-term solutions, as identified during the previous phase. At the same time, special attention should be paid to the support of the members of the organization, who have obviously made a great effort and have suffered from tension, stress and possible fatigue, in order to deal with the crisis (McConnell, 2011; Alexander, 2013).

The recovery phase should include an organizational learning process in order to assess the knowledge and experiences gained during the crisis, as it is mentioned in the study of Hiltz et al. (2011). Crises can have positive or negative effects on an organization's professional and public image. In any case, the organization should not be tempted to ignore the necessary corrective actions it must take after crisis management. On the one hand, an organization that has just emerged from a crisis can consider that it is now ready to overcome all other similar situations. On the other hand, if it has been hurt by a crisis, it may find it extremely difficult to recover and try to take advantage of the experience (Grundy & Moxon, 2013).

Finally, the informed management of the organization should in any case take advantage of the opportunity, organize a formal review of operations and procedures and carefully review the results, without rushing to take responsibility, emphasizing the improvement of the organizational structure and the preparation for the next difficult situations and crises (Doumouras et al., 2012).

7. Conclusion and Recommendations

Not every crisis is a simple and unambiguous event. It is a complex and multifaceted event that affects many areas at once and for a Plan to be effective it must follow a basic principle. To anticipate everything that constitutes the crisis, meaning all the adverse consequences, and for each of them to oppose a measure. This principle also determines the content of a Plan. As part of the process of defining the Plan, the crisis to be addressed must first be identified and its characteristics must then be defined as well. Every crisis, as mentioned above, is a result of the manifestation of a

phenomenon if and when the phenomenon causes adverse effects that as a whole, constitute the crisis (Maes et al., 2010; Liu et al., 2016; Chernobrov, 2016; Crouch, 2014).

At this point, it is argued that phenomena that have adverse effects are known and examined by the competent sciences. Their characteristics and the results of their event are also known. Consequently, every crisis, depending on the phenomenon that causes it, is more or less known. Its characteristics that depend on the characteristics of the phenomenon are also known (Rosenthal & Kouzmin, 1997; Health, 2005; Okumus & Karamustafa, 2005).

At this point should be mentioned that a crisis management Planner can make reasonable assumptions about both unobserved and unrecorded contingencies. Thus, all possible adverse effects of the phenomenon or the generative cause of the crisis are collected and recorded, as for example all the elements of a possible crisis, as well as the possible adverse side effects and all the versions in the evolution of the crisis. In this way, the planner, who is usually also the crisis manager, knows exactly what he has to face. For all that needs to be addressed, a measure is defined and assigned for each one separately (Hausmann & Rodrik, 2003).

Based on the above, the content of a Crisis Management Plan includes all the adverse effects of a crisis -theoretical, recorded, hypothetical- and all measures to address them. By contingency measure it is meant the way people act and the way they use the necessary means and materials to properly manage the contingency, in order to have a desired result (Boin & McConnell, 2007).

At this point, it should be emphasized that the more detailed and accurate a plan is, in terms of the possibilities of the crisis and the measures to deal with them, the more effective it is (Moriarty et al., 1993; Comfort et al., 2001).

REFERENCES

- Al-Dahash, H., Kulatunga, U., & Amaratunga, D. (2014). Evaluation of the System of Disaster Management Resulting from War Operations and Terrorism in Iraq. *Procedia Economics and Finance*, 18, 900–907
- Alexander, D. E. (2013). Social Media in Disaster Risk Reduction and Crisis Management. *Science and Engineering Ethics*, 20(3), 717–733
- Alkhawlani, M., Mohamed AL Haderi, S., Manaf bin Bohari, A., Ahmed, F., & Rahim, N. (2016). Charisma Leadership an Important Determinant for the Crisis Management. *Business Research Review*, 2(2)
- Ansell, C., & Boin, A. (2017). Taming Deep Uncertainty: The Potential of Pragmatist Principles for Understanding and Improving Strategic Crisis Management. *Administration & Society*, 1-34
- Baldwin, B. A. (1979). Crisis Intervention: An Overview of Theory and Practice. *The Counseling Psychologist*, 8(2), 43–52

- Bellomo, N., Clarke, D., Gibelli, L., Townsend, P., & Vreugdenhil, B. J. (2016). Human behaviours in evacuation crowd dynamics: From modelling to big data toward crisis management. *Physics of Life Reviews*, 18, 1–21
- Boin, A., & McConnell, A. (2007). Preparing for Critical Infrastructure Breakdowns: The Limits of Crisis Management and the Need for Resilience. *Journal of Contingencies and Crisis Management*, 15(1), 50–59
- Bowers, M. R., Hall, J. R., & Srinivasan, M. M. (2017). Organizational culture and leadership style: The missing combination for selecting the right leader for effective crisis management. *Business Horizons*, 60(4), 551–563
- Chernobrov, D. (2016). Ontological Security and Public (Mis)Recognition of International Crises: Uncertainty, Political Imagining, and the Self. *Political Psychology*, 37(5), 581–596
- Christensen, T., Danielsen, O., Laegreid, P., & Rykkja, L. (2015). Comparing coordination structures for crisis management in six countries. *Public Administration*, 94(2), 316–332
- Christensen, T., Laegreid, P., & Rykkja, L. H. (2016). Organizing for Crisis Management: Building Governance Capacity and Legitimacy. *Public Administration Review*, 76(6), 887–897
- Coccia, M. (2020). Critical Decisions in Crisis Management: Rational Strategies of Decision Making. *Journal of Economics* 7(2), 81-96
- Comfort, L. K., Sungu, Y., Johnson, D., & Dunn, M. (2001). Complex Systems in Crisis: Anticipation and Resilience in Dynamic Environments. *Journal of Contingencies and Crisis Management*, 9(3), 144–158
- Coombs, W. T., & Laufer, D. (2018). Global Crisis Management – Current Research and Future Directions. *Journal of International Management*, 1-5
- Crouch, C. (2014). *Introduction. Transfer: European Review of Labour and Research*, 20(1), 7–22
- Doumouras, A. G., Keshet, I., Nathens, A. B., Ahmed, N., & Hicks, C. M. (2012). A Crisis of Faith? A Review of Simulation in Teaching Team-Based, Crisis Management Skills to Surgical Trainees. *Journal of Surgical Education*, 69(3), 274–281
- Engelbach, W., Frings, S., Molarius, R., Aubrecht, C., Meriste, M., & Perrels, A. (2014). Indicators to compare simulated crisis management strategies. *Proceedings of the International Disaster and Risk Conference IDRC DAVOS 2014*, 225-228
- Ghio, D., Lawes-Wickwar, S., Tang, M., Dr, Epton, T., Howlett, N., Jenkinson, E., & Keyworth, C. (2020). What influences people’s responses to public health messages for managing risks and preventing infectious diseases? A rapid systematic review of the evidence and recommendations. *PHM journal*, 1-19

- Ginige, A., Paolino, L., Romano, M., Sebillio, M., Tortora, G., & Vitiello, G. (2014). Information Sharing Among Disaster Responders - An Interactive Spreadsheet-Based Collaboration Approach. *Computer Supported Cooperative Work (CSCW)*, 23(4-6), 547–583
- Gruber, D. A., Smerek, R. E., Thomas-Hunt, M. C., & James, E. H. (2015). The real-time power of Twitter: Crisis management and leadership in an age of social media. *Business Horizons*, 58(2), 163–172
- Grundy, M., & Moxon, R. (2013). The effectiveness of airline crisis management on brand protection: A case study of British Airways. *Journal of Air Transport Management*, 28, 55–61
- Haddawy, P., Frommberger, L., Kauppinen, T., De Felice, G., Charkratpahu, P., Saengpao, S., & Kanchanakitsakul, P. (2015). Situation awareness in crowdsensing for disease surveillance in crisis situations. *Proceedings of the Seventh International Conference on Information and Communication Technologies and Development - ICTD '15*.
- Hart, P., & Sundelius, B. (2013). Crisis management revisited: A new agenda for research, training and capacity building within Europe. *Cooperation and Conflict*, 48(3), 444–461
- Hausmann, R., & Rodrik, D. (2003). Economic development as self-discovery. *Journal of Development Economics*, 72(2), 603–633
- Health, R. (2005). *Crisis Management*. Athens: Giourdas Publications
- Henderson, M. L., Hays, R., Van Pilsum Rasmussen, S. E., Mandelbrot, D. A., Lentine, K. L., Maluf, D. G., & Cooper, M. (2019). Living Donor Program Crisis Management Plans: Current Landscape and Talking Point Recommendations. *American Journal of Transplantation*, 546-552
- Hiltz, S. R., Diaz, P., & Mark, G. (2011). *Introduction*. *ACM Transactions on Computer-Human Interaction*, 18(4), 1–6
- Israeli, A. A., Mohsin, A., & Kumar, B. (2011). Hospitality crisis management practices: The case of Indian luxury hotels. *International Journal of Hospitality Management*, 30(2), 367–374
- Jaques, T. (2007). Issue management and crisis management: An integrated, non-linear, relational construct. *Public Relations Review*, 33(2), 147–157
- Jaques, T. (2009). Issue and crisis management: Quicksand in the definitional landscape. *Public Relations Review*, 35(3), 280–286
- Jessop B. (2012) *Narratives of Crisis and Crisis Response: Perspectives from North and South*. In P. Utting, S. Razavi and R.V. Buchholz (Eds) *The Global Crisis and Transformative Social Change*. International Political Economy Series. London: Palgrave Macmillan

- Johansen, W., Aggerholm, H. K., & Frandsen, F. (2012). Entering new territory: A study of internal crisis management and crisis communication in organizations. *Public Relations Review*, 38(2), 270-279
- Ley, B., Ludwig, T., Pipek, V., Randall, D., Reuter, C., & Wiedenhofer, T. (2014). Information and Expertise Sharing in Inter-Organizational Crisis Management. *Computer Supported Cooperative Work (CSCW)*, 23(4-6), 347-387
- Maes, K. C., Hadley, C., Tesfaye, F., & Shifferaw, S. (2010). Food insecurity and mental health: Surprising trends among community health volunteers in Addis Ababa, Ethiopia during the 2008 food crisis. *Social Science & Medicine*, 70(9), 1450-1457
- McConnell, A. (2011). Success? Failure? Something in-between? A framework for evaluating crisis management. *Policy and Society*, 30(2), 63-76
- Moriarty, A., Maeyama, R. G., & Fitzgerald, P. J. (1993). A CLEAR Plan for School Crisis Management. *NASSP Bulletin*, 77(552), 17-22
- Moynihan, D. P. (2008). Learning under Uncertainty: Networks in Crisis Management. *Public Administration Review*, 68(2), 350-365
- Okumus, F., & Karamustafa, K. (2005). Impact of an Economic Crisis Evidence from Turkey. *Annals of Tourism Research*, 32(4), 942-961
- Ristvej, J., & Zagorecki, A. (2011). Information Systems for Crisis Management – Current Applications and Future Directions. *Communications - Scientific Letters of the University of Zilina*, 13(2), 59-63
- Ritchie, B. W. (2004). Chaos, crises and disasters: a strategic approach to crisis management in the tourism industry. *Tourism Management*, 25(6), 669-683
- Rolka, A. (2018). *Crisis management*. CBRN - Security Manager Handbook, 51-68.
- Rosenthal, U., & Kouzmin, A. (1997). Crises and Crisis Management: Toward Comprehensive Government Decision Making. *Journal of Public Administration Research and Theory*, 7(2), 277-304
- Schraagen, J. M., Veld, M. H., & De Koning, L. (2010). Information Sharing During Crisis Management in Hierarchical vs. Network Teams. *Journal of Contingencies and Crisis Management*, 18(2), 117-127
- Schwarzer, D. (2015). Building the euro area's debt crisis management capacity with the IMF. *Review of International Political Economy*, 22(3), 599-625
- Seeger, M. W., Ulmer, R. R., Novak, J. M., & Sellnow, T. (2005). Post-crisis discourse and organizational change, failure and renewal. *Journal of Organizational Change Management*, 18(1), 78-95
- Shivakumar, L., Urcan, O., Vasvari, F. P., & Zhang, L. (2011). The debt market relevance of management earnings forecasts: evidence from before and during the credit crisis. *Review of Accounting Studies*, 16(3), 464-486

- Stuckler, D., Basu, S., Suhrcke, M., Coutts, A., & McKee, M. (2009). The public health effect of economic crises and alternative policy responses in Europe: an empirical analysis. *The Lancet*, 374(9686), 315–323
- Ucaktürk, A., Bekmezci, M., & Ucaktürk, T. (2011). Prevailing during the periods of economic crisis and recession through business model innovation. *Procedia-Social and Behavioral Sciences*, 24, 89-100
- Uitdewilligen, S., & Waller, M. J. (2018). Information sharing and decision-making in multidisciplinary crisis management teams. *Journal of Organizational Behavior*, 39(6), 731–748
- Unlu, A., Kapucu, N., & Sahin, B. (2010). Disaster and crisis management in Turkey: a need for a unified crisis management system. *Disaster Prevention and Management: An International Journal*, 19(2), 155–174
- Van Wart, M., & Kapucu, N. (2011). Crisis Management Competencies. *Public Management Review*, 13(4), 489–511