# How to Lead Self-Government Employees Through the Crisis

## Empirical Evidence on Impact of Crisis Management Competencies on Team Performance in COVID-19 Pandemic

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**Abstract**
The emergence and spreading of COVID-19 pandemic were surprising and sudden. It caused the need for competent crisis management throughout the public administration to manage the initial stage of the crisis. The purpose of our research is to identify the connection between the competencies of crisis management in self-governments and employee performance, measured at the time of the initial stage of the crisis, by their feeling of satisfaction, safety and establishment of conditions for work. In this research report, we expect these variables to be connected via the sharing of information, teamwork and cognitive diversity of work teams. The research used the mediator model according to Baron and Kenny. Sobel's test was used to test the mediator effect. Regression analysis was used to verify the hypotheses. The ANOVA variance analysis was used to analyze multiple dependency. The level of significance was 5%. The research sample consisted of 207 managers in self-government organizations operating in Slovakia. The hypothesis on the dependency between the crisis management competencies and team performance during the initial stage of the crisis, facilitated by sharing of information, teamwork and cognitive diversity of crisis management, was confirmed.

## Introduction

Due to the COVID-19 pandemic, the population and regions had to react quickly and correctly and give the population specific answers during the initial days of the crisis. Not only the population, but especially the employees, needed to trust the decisions of the managers, who had to make credible and meaningful statements under the difficult conditions of the quarantine. On the other hand, these facts appeal to the need of quality management competencies, which would be stable and established long-term in the environment of self-government leaders, and which in non-standard conditions may develop into higher management skills, and thus allow the leaders to operate on a principle other than trial and error (which could have fatal consequences for all stakeholders).

The research gap, which is the starting point for forming the research model of this study, is the content of competencies of crisis management and its effect on team performance in self-government organizations during the COVID-19 crisis. Based on the published studies, we consider important to examine cognitive diversity, the

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ability to share information and facilitate teamwork as key qualities of crisis management, where we assume positive association with team performance.

The main intention of our research is to identify the impact of competent crisis management of self-government organizations on crisis management linked to the spread of the COVID-19 disease in its initial phase. The first case of this disease was recorded in Slovakia on March 6, 2020. We collected the data for the research during March and April of 2020. We examined the mutual dependence between the crisis management competencies, responsible for the decisions in a crisis situation in self-government organizations, and employee performance, whereby we assumed that the competencies of crisis management were positively related to employee performance through the sharing of information, teamwork and cognitive diversity of work teams. We examined the relations between these variables during the initial stage of the pandemic, i.e. its initial stage, that was characterized by uncertainty, and fear of the unknown. Municipalities were forced to respond quickly to new challenges – rapidly ensuring the possibility of working from home, organizing work regulations in municipal offices and ensuring satisfactory handling of clients. We were therefore able to assume highly authentic reactions of the managers of self-government organizations, who were very suddenly forced to take on the role of crisis managers. Given this fact, we consider the acquired information of high importance, since it was not affected by the additional acquisition of knowledge in the field of crisis management, but it uncovered the actual skills of the addressed managers to manage organizations and institutions of self-government during the COVID-19 pandemic.

## Literature Review

It is the central precept of good governance to prepare for predictable risks, as well as unpredictable contingencies, and to invest the necessary resources to minimize the impact of catastrophic events on the people and society when they occur (Ansell, 2019). A public organization is in crisis when its institutional structure is seriously challenged (Boin and Hart, 2000). The more lives governed by the value(s) under threat, the deeper the crisis goes (Boin et al., 2017). For this exact reason, the COVID-19 pandemic is perceived more intensely, since it caused a feeling of uncertainty and concerns for the health and lives of people and their loved ones.

COVID-19 pandemic has changed where and how public oficials conduct their work, the demands their job places on them and the demands they face outside their jobs (Schuster et al., 2020). Several studies prove that effective communication (Kim and Lim, 2020; Clementson, 2020; Chubarova, Maly and Nemec, 2020), use of suitable people management style (Richardson, 2019; Grant-Smith and Colley, 2018; Kapucu and Ustun, 2018), ability of adequate decision-making (Savi and Randma-Liiv; 2015; Stanton, 2014), establishment of an effective crisis team and the sharing of information within it (Uitdewilligen and Waller, 2018; Lee, Woeste and Heath, 2007) were important factors of effective crisis management, especially during the initial stage of the crisis. The joint effect of said factors is the precondition for the successful management of difficult conditions and the preparation for new, often changed, post-crisis operations. The reaction to the crisis determines the trajectory of the recovery and the future of organizational performance (Bowers, Hall and Srinivasan, 2017). But as Savi and Randma-Liiv (2015) warn, the crisis context sets new requirements for the competencies of public officials, as cutback management obliges them to cope with new and very complicated tasks.

The listed aspects (communication, teamwork, people management style, decision-making, information sharing) affect the work performance of employees and teams. Performance during the initial stage of the crisis may be assessed through the feeling of satisfaction, safety and conditions for work (Kash et al., 2018).

As pointed out by Netten et al. (2018), in reality, the employees often encountered information oversaturation or incomplete information during the crisis, or the combination thereof, which has led to reduced quality of decision-making and subsequently lower performance. Malhotra et al., (2018) warns of the critical increase of data volumes, i.e. exploration of big data in risk assessment approaches. Kostyuchenko et al., (2020) adds that the epistemic uncertainties related to the methodological imperfection of used approaches and models are still significant. Savi and Randma-Liiv (2015) indicated that short-term cuts and changes in the decision-making processes intended to alleviate the initial stage of the crisis may remain in effect considerably longer than initially planned, thereby influencing public administration practices in the long run. Kim and Lim (2020) highlighted an important practical implication for crisis managers, which can activate and promote positive employee behaviour interactions, thereby influencing leadership's strategic decision-making in an organizational crisis.

Tourish (2020) argues that the COVID-19 pandemic is also a crisis of leadership theory and practice. Decision making is particularly hazardous when we have poor evidence to guide us and face unpredictable outcomes. The crisis situation we are facing at the moment often creates space for populist (Schneiker, 2020) and destructive leadership (Brandebo, 2020) and it also warns that the great crisis managers are not always good at managing relationships, which may have negative implications for the crisis management in the long term.

There is a general agreement between the academic workers and the expert practitioners that cooperation is necessary to manage complex risks and events, which no actor deals with on his own (Parker et al., 2020). Collaborative crisis management may be defined in general as a collective effort of several autonomous actors

working across organizational limits and levels of authority and sectors, with the goal of preparing for risks and extreme events, which impact our modern society and to react to them and learn from them (Bynander and Nohrstedt, 2020). The successful management of a crisis - defined as a situation or an event, which threatens the basic values, and which requires urgent measures in the context of uncertainty - requires for the subjects with decision-making authority to join the participating organizations to contribute to the specific stages and activities, which represent crisis management, including preparedness, mitigation, reaction, restoration and learning a lesson from it (Boin et al., 2017).

Coombs (1999) points out the fact that the crisis team members must have decision-making authority. Olaniran and Williams (2001) claim that crisis management is a process of collective decision-making. Jehn and Techakesari (2014) state that human factors and team processes play a key role in the improvement of reaction speed, accuracy and efficiency of team members.

In the face of a public health crisis, the activity of gathering generalizable scientific or statistical information may seem at best an ancillary project, something that should be postponed until the primary and more urgent goal of mitigating the effects of the crisis has been fully accomplished (London, 2016). Therefore, it is really helpful that theory also offers examples of successful crisis management, achieved by appropriate cooperation of self-government and public administration institutions. Study by Cai - Jiang - Tang (2021) speaks of positive conclusions reached by integrating policy regime and campaign theories, the decision-making and coordination capacity of crisis management were enhanced by the establishment of top-down leading groups / headquarters and complex horizontal / vertical and formal / informal institutional arrangements. Mameli (2019) has discussed the positive interventions of public management during the Ebola epidemic. His review of country experiences suggests that securing working relationships among multiple actors within a global infrastructure of collaborative health governance offers productive means for redressing the viral spread. It is further argued that as various domains and sectors of the international system become more tightly interlaced to face common health threats, the ability to grow positive peace increases. The research of Okware (2016) was dedicated to the management of the Ebola epidemic in Uganda, as one of the countries with limited resources. The author claims that successful management is based on collaboration and partnerships at the national and international level. This partnership is vital in building health systems for early surveillance and management of emerging infections. Moran (2004) describes success stories of public administration in HIV / AIDS pandemic in Uganda and Senegal. These studies serve as "lessons learned" for the current pandemic situation.

## Methods

Based on the above-mentioned literature research, we have extracted the most common items from communication skills, leadership and decision-making, which we have used to create the initial variable called Crisis Management Competencies (CMC). All items, which are part of the CMC are listed in Table 1.

The quality of crisis management depends on the performance of the managed organization during a crisis (Narbón-Perpiñá, 2019). We assume that the CMC will lead to improved performance of the subordinate teams, defined in the conditions of the acute stage of the crisis (Kash et al., 2018) through the sharing of information, use of teamwork and cognitive diversity of the crisis management of the organization.

Based on the current understanding, identification and definition of the gap in the research of management in self-government organizations, we have formed the research design for the purposes of this study.

Based on our research we would like to answer the following research question: What is the impact of competent crisis management of self-government organizations on the management of the COVID-19 crisis in its acute stage?

Our main research goal is to verify the relation between the crisis management competencies of self-governments (CMCSG) and employee performance (EP), measured during the time of acute stage of the crisis. A partial goal of our study is to determine which elements of competent crisis management, and to what extent, impact employee performance measured through the feeling of satisfaction, safety and conditions for work.

We have formulated the main research hypothesis as follows:

H: The dependence between the CMC and Team Performance (TP) is mediated by Information Sharing (IS) TeamWork (TW) and Cognitive Diversity of the management (CD).

We have used seven partial research assumptions to verify the main hypothesis.

H1: CMC are positively linked to TP.

H2: CMC are positively linked to IS during a crisis.

H3: IS during a crisis is positively linked to TP.

H4: CMC are positively linked to the level of TW during a crisis.

H5: The level of TW during a crisis is positively linked to TP.

H6: CMC are positively associated with the level of CD of crisis management.

H7: The level of CD of crisis management is positively linked to TP.

Through these research assumptions, we are able to fill the current research gap, which is the examination of the relation between the crisis management competencies and employee performance in organizations and institutions in self-government.

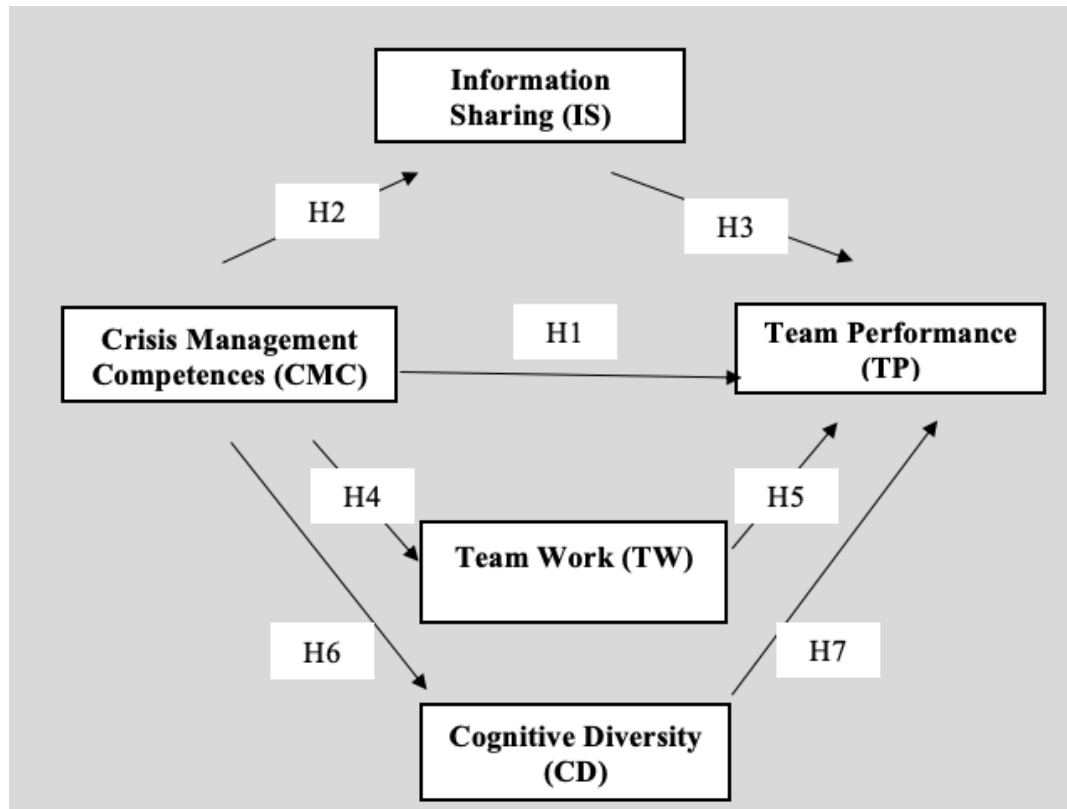Figure 1 shows the formulated relations. The items of individual variables are listed in Table 1.



**Fig. 1.** The mediation model and the seven tested research assumptions.
**Source:** Own processing.

**Table 1.** Items Used to Measure Selected Variables.

| **Crisis Communication – The leadership:** |
| --- |
| provides a credible explanation of what happened. |
| provides direction to manage the spreading of the virus. |
| gives hope by emphasizing the positive aspects and presents a positive view of successfully solving problems. |
| expresses empathy towards employees and their families and other affected by the health crisis. |
| is in control of the situation, emphasizes its own responsibility and undertakes adequate steps to overcome the crisis situation. |
| supports two-way communication during the time of a crisis. |
| I view communication on the part of the leadership as honest, sincere and I trust it. |
| I view communication on the part of the leadership as transparent. |
| **Management Style – During the crisis, the leadership:** |
| is an example to its employees. |
| expresses trust in its employees, even in cases when they face failure. |
| provides the necessary support to employees. |
| empowers employees and gives them space to decide and take action, if they have the necessary skills. |
| expresses its support of other entities as well (for example, communities, self-government, etc.) |

places the good of the teams above its own interests.

considers the moral and ethical consequences of its decisions.

talks optimistically of the future.

critically re-evaluates its expectations in the context of their suitability and accuracy.

helps others develop their strengths.

**Decision-Making – During the crisis, the leadership:**

understands the problem.

makes decision taking into consideration the strategy / vision / values.

provides fast and high-quality decision-making process and the leadership takes responsibility for them.

is capable of critically evaluating information.

is capable of viewing information in context.

is capable of analyzing different solutions to problems.

is capable of learning on the go from situations.

is cautious, it is prepared even for the worst-case scenario.

**Team Performance during the crisis**

This office is a good place to work.

I am proud of this office for how it managed the crisis situation.

Working in this office is like being a part of a big family, even during these crisis conditions.

The morale is high in this office.

I do my work with enthusiasm.

At the moment, my work gives me enough autonomy.

I am getting useful feedback in the current situation.

The work environment in this office is safe.

The work conditions in this office are satisfactory.

The office constructively handles the issues of its employees.

The employees need to be controlled less in the performance of their tasks.

The employees help and support each other in their work in the current situation.

The employees are willing to work with greater commitment.

I care about how successfully this office will manage the crisis situation.

My work in this office is a source of energy for me, despite the crisis situation.

I am learning a lot at work during this crisis situation.

**Information Sharing During the Crisis**

I am informed about the procedure for solving the crisis situation.

The information I get is useful to me.

I get information on time.

The information I get is understandable to me.

I have enough information for my work.

I constantly get updated information.

The amount of information during the crisis is excessive.

I have an overall picture of the situation (not only selected new information).

I am informed about the results of the crisis solutions.

The communication channels used during the crisis suit me.

**Teamwork During the Crisis – During the crisis:**

all team members may ask questions during the crisis, if there is something they do not understand.

the employees receive support they need from other employees in the performance of their work.

it is difficult to express oneself critically at this workplace, if I see problems in fulfilling obligations.

disputes at the workplace are addressed appropriately; it is not important who is right, but which solution is the best.

all employees work together as a well-coordinated team.

the corporate culture supports learning from the mistakes of others.

professional mistakes do happen during the crisis and are addressed appropriately.

my colleagues encourage me to express possible concerns I might have in relation to the fulfillment of obligations.

 I receive adequate feedback.

**Cognitive Diversity in Crisis Management is Expressed by different:**

ways of thinking.

knowledge and skills.

view of the world.

beliefs about right and wrong.

**Source:** own processing.

We have used the SPSS 22 software package to analyze the data. The reliability of the defined sets of items for individual variables (CMC, TP, IS, TW, CD) was tested using Cronbach's Alpha coefficient. The correlation analysis was used to test the relations between the sets of items, compiled to assess individual variables. Subsequently, the mediator model according to Baron and Kenny and Sobel's test were used to test the mediator effect. In the end, regressive analysis was used to verify the proposed hypotheses. The control variables were the size of the organization based on the number of employees, gender and age of the manager, his/her position in the management hierarchy and years of experience in a management position. We have used the ANOVA variance analysis to analyze multiple dependency. We have worked with the 5% level of significance.

We have used the mediator model to test the relations between the crisis management competencies (CMC), team performance (TP) and the mediating variables of information sharing (IS), teamwork (TW) and cognitive diversity (CD). We deal with mediation because through it we can examine the causal relations between the variables and engage other variables in the basic relation for a better and deeper examination of relations and processes existing among the identified variables.

The CMC represent an independent explanatory variable. This variable is operationalized as a score, which the crisis management of an organization has received based on the assessment of 3 items - crisis communication, style of management during a crisis and decision-making during a crisis. Each assessed item consists of partial items (Table 2). Overall, the CMC independent variable contains 26 items, which are scaled using the 5-point Likert-type scale (1='strongly disagree' and 5='strongly agree'). After the reliability analysis, Cronbach's Alpha of the CMC was 0.98 (26 items).

The second variable, taken as a consequence, is the team performance (TP) dependent variable. According to the study of Kasha et al. (2018), items identifying team performance/efficiency depend on the environment and situation, in which the performance is measured. The establishment of correct and suitable conditions leads to improvement of teamwork quality and achievement of the desired goals. During the stage of acute crisis, it is not possible to measure team performance using quantitative indicators, since they are not yet available. The precondition for the effective operation and performance of a team during a crisis is the establishment of such conditions for its operation, which would lead in the subsequent crisis stage of process assessment and formulation of recommendations for the future, to measurable results at a high level. The team performance variable is operationalized as a score assigned to individual items, representing satisfaction at work, feeling of safety and quality and safe working conditions (Table 2). We have used the Safety Attitudes Questionnaire (SAQ), which was validated by many researchers (Zhao et al., 2019; Li et al., 2017; Nguyen et al., 2017), and which was developed specifically for the purpose of examining management opinions on the questions of teamwork, from the perspective of teamwork climate, job satisfaction, perceptions of management, safety climate, working conditions and stress recognition even in an extraordinary situation, which the current pandemic no doubt is (McGuire, 2013). After the reliability analysis, the Cronbach's Alpha of TP was 0.944 (17 items).

The level of information sharing during a crisis (IS, team nature of work (TW) and the level of cognitive diversity of the work teams (CD), were identified as the mediating variables. These variables are a certain transition bridge between a dependent and an independent variable. They are entered directly into their relation and they affect the whole model. An independent variable is the cause of the mediating variable, which is then a cause of the dependent variable (MacKinnon, 2008). Individual mediating variables are operationalized as a score acquired based on the assessment of items we have extracted from the above-mentioned literature research (Table 2). After the reliability analysis, the Cronbach's Alpha of IS was 0.922 (10 items), TW 0.870 (9 items) and CD 0.898 (4 items).

The relation between the variables CMC, TP, IS, TW and CD may be affected also by external, so-called control variables. For control variables, we have subsequently tested their effect in the course of the basic examined / model relation.

**Table 2.** Description of the Research Sample.

| Variables | | Gender | | | |
|---|---|---|---|---|---|
| Age | Years of experiences | Male | Female | Total | % |
| do 25 years | do 5 years | | 1 | 1 | 0% |
| do 25 years | Total | | 1 | 1 | 0% |
| 26 to 35 years | up to 5 years | 3 | 7 | 10 | 5% |
| | 5 to 10 years | 2 | 9 | 11 | 5% |
| | 11 to 15 years | 2 | 2 | 4 | 2% |
| | 16 to 20 years | | 1 | 1 | 0% |
| 26 to 35 years | Total | 7 | 19 | 26 | 13% |
| 36 to 45 years | do 5 years | 3 | 2 | 5 | 2% |
| | 5 to 10 years | 1 | 6 | 7 | 3% |
| | 11 to 15 years | 7 | 5 | 12 | 6% |
| | 16 to 20 years | 4 | 5 | 9 | 4% |
| | More than 20 years | 2 | 12 | 14 | 7% |
| 36 to 45 years | Total | 17 | 30 | 47 | 23% |
| 46 to 55 years | do 5 years | 3 | | 3 | 1% |
| | 5 to 10 years | | 3 | 3 | 1% |
| | 11 to 15 years | 4 | 4 | 8 | 4% |
| | 16 to 20 years | 4 | 5 | 9 | 4% |
| | More than 20 years | 21 | 32 | 53 | 26% |
| 46 to 55 years | Total | 32 | 44 | 76 | 37% |
| 56 to 60 years | 11 to 15 years | 2 | | 2 | 1% |
| | 16 to 20 years | 1 | 1 | 2 | 1% |
| | More than 20 years | 10 | 12 | 22 | 11% |
| 56 to 60 years | Total | 13 | 13 | 26 | 13% |
| More than 60 years | 5 to 10 years | 2 | 1 | 3 | 1% |
| | 11 to 15 years | 1 | 1 | 2 | 1% |
| | 16 to 20 years | 1 | | 1 | 0% |
| | More than 20 years | 11 | 14 | 25 | 12% |
| More than 60 years | Total | 15 | 16 | 31 | 15% |
| Total | | 84 | 123 | 207 | 100% |

**Source:** own processing.

We have used a questionnaire survey to collect the data. The questionnaires were sent electronically to middle level managers of self-government organizations and institutions in Slovakia. They were intentionally not distributed to the top managers, due to their answers being skewed by their subjective view of their work, often perceived differently from their direct subordinates. At the same time, the questionnaires were sent and collected during the first months after the outbreak of the crisis (during March and April) to objectively assess management skills of crisis managers during the acute crisis, whereby the first COVID-19 case in Slovakia was confirmed on March 6, 2020. During this period, the crisis managers had to face many unexpected and unknown issues and they solved various questions regarding the health of the population, employees, crisis operation of self-government organizations, securing staff, its safety and quality work conditions in the extraordinary pandemic situation. The research sample consisted of 207 managers of municipal authorities and local government offices of Slovakia. 980 responders were approached by questionnaire, response rate was 21,12%. 46% of the sample were offices with 50 to 250 employees, 32% were offices with 10 to 49 employees, 17% were offices with 1 to 9 employees and the remaining 5% were offices with more than 250 employees. The research covered all of

Slovakia and was assessed just at regional level. Of the 8 regions, most offices (30%) were in the Bratislava region, followed by the Banská Bystrica (16%), Košice (11%), Žilina (10%), Trnava (9%), Trenčín and Nitra (9% each) and Prešov (7%). The structure of managers of the examined offices is presented in Table 2.

## Results

We determine the relations between the individual variables by creating a correlation matrix. For its creation we have created summary variables – CMC, TP, IS, TW and CD as the overall variable score of the relevant items. The matrix also includes control variables. The descriptive statistics and the correlation matrix itself is presented in Table 3.

**Table 3.** Correlation Matrix.

| Variable | Mean | SD | N | CMC | TW | IS | CD | TP | Gender | Age | Exp | Position |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CMC | 4.13 |  | 207 |  |  |  |  |  |  |  |  |  |
| TW | 3.92 | .68 | 207 | .77** |  |  |  |  |  |  |  |  |
| IS | 4.11 | .73 | 207 | .76** | .74** |  |  |  |  |  |  |  |
| CD | 3.79 | .87 | 207 | .36** | .45** | .41** |  |  |  |  |  |  |
| TP | 4.12 | .68 | 207 | .82** | .84** | .75** | .44** |  |  |  |  |  |
| Gender | 1.59 | .49 | 207 | -.08 | -.17** | .00 | -.12 | -.13 |  |  |  |  |
| Age | 3.93 | 1.22 | 207 | .18** | .28** | .14** | .14** | .26** | -.14** |  |  |  |
| Experience | 3.91 | 1.41 | 207 | .21** | .20** | .15** | .08 | .25** | .01 | .57** |  |  |
| Position | 2.70 | 1.08 | 207 | .19** | .16** | .04 | .09 | .18** | -.31** | .23** | .22** |  |
| Size | 2.39 | .82 | 207 | -.08 | -.14 | -.05 | -.16** | -.09 | .12 | -.14** | .14** | .10 |

*Note. CMC = Crisis Management Competencies; TW = Teamwork; IS = Information Sharing; CD = Cognitive Diversity; TP = Team Performance; \*\*p > .05.*
**Source:** own processing.

The correlation matrix indicates that there are significantly positive correlations between all five examined variables, which indicates the use of the mediator model. In mediation we have started with the set main hypothesis:

*H: The dependency between the crisis management competencies and team performance is mediated through information sharing, teamwork and cognitive diversity of crisis management.*

We proceeded in three steps (A, B, C), in which we verified the partial hypotheses by calculating three regressions.

C) There is a relation between team performance (Y) and crisis management competitions (X).

A) There is a relation between the mediator variable (M) and crisis management competencies (X).

B) There is a relation between team performance (Y) and mediator variable (M), on which X does not participate.

Where C represents the overall effect. The multiplication of A*B is mediated through the (indirect) effect of X on Y through M. The difference C' = C – A*B is the net (direct) effect of X on Y without the participation of M.

The hypothesis is true when the indirect effect is significant, meaning if A*B = C - C' is significant (use of Sobel's test). We have added the control variables of age, gender, years of experience and position of the manager and the size of the organization into the modeling of the overall effect. We have used the ANOVA variance analysis to analyze multiple dependency. We have worked at the 5% significance level and the obtained results are presented in Table 4. Since we are working with three mediator variables, we will divide the structure of the model into three parts - i.e. three paths, through which the indirect, meaning the mediated relation, will pass through every mediator. A path for a direct relation is also part of the model. The breakdown of the variance for the overall dependence on the initial model has shown that no control variable was significant (p-value < 0.05).

**Table 4.** Parameter Estimates.

| Step C: (Dependent Variable: TP) | | | | | | |
|---|---|---|---|---|---|---|
| Parameter | B | Std. Error | t | Sig. | Lower Limit | Upper Limit |
| Intercept | 1.212 | 0.147 | 8.263 | 0.000 | 0.923 | 1.501 |
| CMC | 0.704 | 0.035 | 20.198 | 0.000 | .0636 | 0.773 |

| Steps A1. A2. A3: (Dependent Variable: TW) | | | | | | |
|---|---|---|---|---|---|---|
| Parameter | B | Std. Error | t | Sig. | Lower Limit | Upper Limit |
| Intercept | 1.154 | 0.161 | 7.149 | 0.000 | 0.836 | 1.472 |
| CMC | 0.670 | 0.038 | 17.444 | 0.000 | 0.594 | 0.745 |

| (Dependent Variable: IS) | | | | | | |
|---|---|---|---|---|---|---|
| Parameter | B | Std. Error | t | Sig. | Lower Limit | Upper Limit |
| Intercept | 1.191 | 0.176 | 6.782 | 0.000 | 0.844 | 1.537 |
| CMC | 0.706 | 0.042 | 16.911 | 0.000 | 0.624 | 0.788 |

| (Dependent Variable: CD) | | | | | | |
|---|---|---|---|---|---|---|
| Parameter | B | Std. Error | t | Sig. | Lower Limit | Upper Limit |
| Intercept | 2.159 | 0.303 | 7.130 | 0.000 | 1.562 | 2.756 |
| CMC | 0.395 | 0.072 | 5.488 | 0.000 | 0.253 | 0.537 |

| Steps B1. B2. B3: (Dependent Variable: TP) | | | | | 95% Confidence Interval | |
|---|---|---|---|---|---|---|
| Parameter | B | Std. Error | t | Sig. | Lower Limit | Upper Limit |
| Intercept | 0.446 | 0.143 | 3.116 | 0.002 | 0.164 | 0.728 |
| CMC | 0.303 | 0.050 | 6.076 | 0.000 | 0.204 | 0.401 |
| TP | 0.438 | 0.057 | 7.744 | 0.000 | 0.327 | 0.550 |
| IS | 0.124 | 0.051 | 2.437 | 0.016 | 0.024 | 0.225 |
| CD | 0.052 | 0.029 | 1.801 | 0.073 | -0.005 | 0.109 |

| Overall indirect effect | | Indirect effect mediated through mediators: | | | |
|---|---|---|---|---|---|
| | | | M1 (TW) | M2 (IS) | M3(CD) |
| A*B | 0.402 | Ai*Bi | 0.294 | 0.088 | 0.021 |
| IS | 3.614 | IS | 7.078 | 2.412 | 1.057 |
| Sig. | 0.000 | Sig. | 0.000 | 0.016 | 0.291 |

| Effect of size of individual parts on the overall structure: | | |
|---|---|---|
| Effect | Coefficient | % |
| Total | 0.705 | 100 |
| Direct | 0.303 | 43% |
| Indirect | 0.402 | 57% |
| Indirect through M1 | 0.294 | 42% |
| Indirect through M2 | 0.088 | 12% |
| Indirect through M3 | 0.021 | 3% |

*Note. CMC = Crisis Management Competencies; TW = TeamWork; IS = Information Sharing; CD = Cognitive Diversity; TP = Team Performance; p > .05.   Lower Limit and Upper Limit are in the 95% Confidence Interval*
**Source:** own processing.

The results in Table 4 show that the overall indirect effect is significant in the positive direction, just as 2 items of the indirect effect are mediated through individual mediating variables and are significant in the positive direction (teamwork and information sharing). The cognitive diversity mediator was not significant. Since the direct effect of C is also significant, multilateral incomplete mediation has been verified. The size of the effect of individual components of the used model is shown in Table 4. Almost 60% of the overall effect of crisis management

competencies on team performance are mediated by individual mediating variables, of which information sharing has the greatest effect (42%), 12% is mediated through teamwork and 3% through cognitive diversity of crisis management.

## Discussion

We interpret all obtained results in three steps (A, B, C):

- We have found that the relations expressed through steps A and B are significant for 2 mediating variables, meaning there are relations between teamwork (M1) and sharing of information (M2) and crisis management competencies (X) and that there are also relations between team performance (Y) and two mediating variables (M1, M2), on which X does not participate. Due to the significance of these relations, there is an assumption for the existence of mediation.
- The multiplication of A*B is significant, so the indirect effect of crisis management competencies (X) and team performance (Y) through the measured information sharing and teamwork was confirmed. The hypothesis was confirmed.
- Both indirect and direct effects are significant. Expressed in percentages, we can see that approximately 43% of the overall effect falls onto the direct effect and 57% onto indirect effect. Since the indirect effect achieves almost 80% of the overall effect, it is partial mediation.

The hypothesis on the dependence between crisis management competencies and team performance, which is mediated through information sharing, teamwork and cognitive diversity was confirmed. Partial mediation was identified, in which the mediation variables mediate only part of the effect, whereas the remaining smaller part is mediated directly. In any case, this is an important finding. Team performance during the initial stage of the crisis may be affected by competent crisis management and it is possible to amplify this effect through information sharing and support of teamwork. Our findings align with many studies and findings presented in scientific literature, where important factors for crisis management, especially during the initial stage, include efficient and effective communication (especially internal), suitable management style, flexibility of decision-making, establishment of an effective crisis team and sharing of information within it (Bowers, Hall and Srinivasan, 2017; Moon, 2020, Comfort et al, 2020; Nguyen and Chu, 2020). As Moon (2020) argues, effective communication with the goal of explaining COVID-19 to the public as an invisible, new, deadly threat requires strong leadership, timely information based on facts and trust, in order to ensure a broad consensus of the public for the support of collective actions. Our results contribute to the theoretical knowledge with the finding that, during the initial stage of the crisis, cognitive diversity of crisis management does not significantly contribute to team performance.

Research results have confirmed that teamwork in self-government organizations was a supporting element of managing the initial stage of the crisis and the respondents assigned great value to autonomy, feeling of safety, ability to learn and pride in their work.

One of the pillars of successful crisis management is crisis communication. Similarly, our findings confirm greater impact of information background and sharing of the necessary information during the initial stage of the crisis on the result of the work of teams. This gives employees a feeling of safety and ensures supply of information necessary for quality performance of their work. The obtained results point out that the employees perceived communication of leadership of the examined organizations and institutions of self-government, during the initial stage of the crisis, as reliable; they had enough directions and information, which they rated as useful. The statements of the respondents also indicate that, for the most part, they were given support of their work they needed during this stage of the crisis by one another and that support on part of leadership was weaker. However, the respondents positively rated the speed and responsibility of decision-making during the crisis management, its ability to learn on the go from the situation, which is a precondition for the overall process of learning from the crisis in its subsequent stages.

Based on the examined mediating variables, the effect of cognitive diversity of crisis management on organization performance is weaker, but part of the effect is mediated also through this effect (3%). This finding is in line with the research of Mitchell et al. (2017), who argues that cognitive diversity has an effect on the adoption of innovative solutions and the improvement of processes through a broad range of expert knowledge of the inter-functional groups. The reaction to the crisis determines the trajectory of recovery and the future of the organizational performance.

## Conclusion

Our research has confirmed that the dependency between crisis management competencies and team performance is mediated through information sharing, teamwork and cognitive diversity of the crisis management. We have also found that cognitive diversity of crisis management during the stage of acute crisis does not significantly contribute to team performance. The competencies of managers of self-government organizations and institutions can ensure their stable performance even during a crisis. In the self-government organizations, as well as the whole of public administration, crisis plans are prepared, often only formally, which oftentimes make the crisis situation worse due to their bureaucratic background. Lockwood (2005) stated the

reasons, why the managers and organizations fail in this aspect. The most important reasons and those that arose during the acute situation, include relying on weak, untested plans, which will not effectively protect organizations in a real crisis, ignorance or inability to catch warning signals on time, trivializing the situation and refusal of the upcoming threat to the organization. Our research has contributed to the existing knowledge by determining the importance of management competencies during a crisis.

Our finding has provided valuable lessons for the practice and the ability to draw conclusions for the self-government organizations and institutions during the initial stage of the crisis, which is typically marked by its high level of uncertainty and the presence of negative emotions, such as fear, anxiety, anger or fears. It is precisely at this time when the leaders of self-government organizations must prove their skills to manage the crisis and build the trust of their subordinates. Prompt assurance of a qualified crisis management and its support of team cooperation are absolutely necessary. The applied mediator model has pointed out the need for effective crisis communication based on transparent information sharing with the employees of self-government organizations and institutions. The initial stage of the crisis, we have covered in our research, has pointed out the necessity of creating an information background for reliable, transparent and fast sharing of information, which supports team performance in self-government organizations and institutions. The findings have confirmed that the information sharing is the key element in successfully managing the situation. It is also important to note the importance of middle management, which participates in a significant way, to the management of the crisis situation, especially through the support of teamwork and implementation of suitable management styles. These are the tools, which may, based on the findings of our research, significantly contribute to smooth management in a crisis situation.

**Research Limitations**

The research results of this study contain limitations, which must be presented for the purposes of interpreting the findings. These are especially the local nature of the research and examination of a limited sample (207) of self-government organizations, all of which are located in Slovakia. The results are relevant from a regional perspective; their generalization would require for the sample to be expanded. We also want to underline the fact that the quality of the responses may have been affected by the fact that the questionnaire was distributed in March and April 2020, during the outbreak of the crisis and the employees were busy handling the situation. Our study does not take into account the existing demographic, geographic, infrastructural, administration capacity or administration culture or the context of tradition when speaking about the features of successful management practices. These parameters can also translate into more or less successful crisis management. Another limitation is the potential self-reporting bias of middle managers reporting about the teams they lead and their judgement of the teamwork quality, as well as potential misunderstanding of some questions from questionnaire.

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