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# ORGANIZATION OF CRISIS MANAGEMENT IN PUBLIC ADMINISTRATION

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## ABSTRACT

*The efficiency of the organization of crisis management in public administration is learnt in the article on the basis of experimental study. Factors of effective crisis management of public administration are determined. Theories of neo-institutionalism and attribution based on the data of transition economies have been experimentally confirmed. It is studied the influence of indicators of governance of transition economies on the organization of crisis management.*

*It is established that the effectiveness of government, the level of political pressure, the quality of strategy and public sector policy determines the ability of the government to formulate and implement reasonable policy (regulatory environment), and the legitimacy of government (compliance with public rules and regulations, legislation, legality).*

*The weakness of the organization of crisis management in the public sector of transition economies and the lack of influence on the macroeconomic situation and economic growth of the public sector are proved. It is determined that the level of democracy in transition economies is weak. Freedom of thought, association collaboration and media is poor developed. The weak legitimacy of the government and the inefficiency of communication between public authorities in transition economies have been proven. Such situation with communication may have little influence on public opinion.*

**Keywords:** Crisis management, Authorities of public administration, Public sector, Government legitimacy, Public sector communication strategies

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## 1. INTRODUCTION

The increasing levels of turbulence lead to the crises which are repeating more and more often. The organization of crisis management in public administration depends on several main factors: leadership and professionalism [1]; public administration strategies; political and macroeconomic stability; pre-crisis management; crisis management approaches; legitimacy and legitimacy of power.

Crisis phenomena are one of the issues on the agenda for countries around the world [2]. Authorities of public administration use tools and resources to mitigate and overcome the negative consequences in a crisis situation. However, resources and tools for crisis management, as well as crisis management institutions, are ineffective in the countries with economies in transition [3].

Crisis management needs planning at the regional level [4]. The development of the theory of democracy and human rights protection [5] indicates the necessity to update the concept and methodology of crisis management. It is important to make an emphasis on the integrating of the concept of democracy into the concept of crisis management. The level of social interaction between the public and private sectors before the crisis is a prerequisite for the effective work of crisis management [6].

The modern system of public administration is influenced by new factors. Here we are talking about the concept of e-democracy [7], which defines new rules for the functioning of the social and economic system and new methods of overcoming crises.

## 2. LITERATURE REVIEW

Crisis management is considered as a system of management measures and decisions in terms of transformation of the social and economic system. These actions are aimed at diagnosis, prevention, avoidance, elimination of crisis phenomena and neutralization of the action and consequences of the crisis in the future [8]. "Crisis management is the process by which a government agency works to avoid crises or events which may be harmful to the organization or to the public at large and works to mitigate the effects of any crises which may occur" [3].

Authorities of public administration use different approaches in crisis management [9]. Neo-institutionalism and attribution theory provide a link between crisis response strategy and crisis. Neo-institutionalism is based on the concept of organized legitimacy. Legitimacy is based on social rules and stakeholder expectations. The principle of legality plays an important role in ensuring legitimacy.

The crisis response strategy is used to: 1) inform about the insignificance of the problem; 2) to make an assessment of the crisis situation milder and calmer by society.

The type of crisis determines the communication strategy. Attribution theory explains the relationship between crisis and strategy, using four causal dimensions of "stability, external control, personal control and locus". Crisis response strategies are divided into "denial, distance, ingratiation, mortification, and suffering" [10].

Eight attributes affect government public relations: "politics, legal constraints, focus on serving the public, extreme media and public scrutiny, poor public perception of government communication, lack of managerial support for public relations practitioners, lagging professional development, and federalism" [11].

Neo-institutionalism and attribution theory integrate, forming a symbolic approach to crisis management. The term "symbolic" involves the usage of symbolic resources (communication strategies) in order to protect the image of the organization. The symbolic approach provides three types of crisis strategies on the image of the authorities of public administration: 1) to convince society of the absence of crisis; 2) to form a less negative attitude to the crisis; 3) to form a positive image of the organization.

The success of crisis management depends on the "crisis response" [12]. Relationship approach, as an element of a symbolic approach, provides an understanding of the crisis by public authorities. The history of relationships in a crisis provides an understanding of the dynamics of the crisis. Understanding of the dynamics provides more successful overcoming and management efficiency [13].

Pre-crisis management determines crisis measures of public administration bodies. The effective team leaders, management experience, internal formal communications and external communications, the type of crisis significantly affect crisis management. Authorities of public administration carry out structural and cultural transformations during the crisis. They make decisions at an accelerated rate, transform communications and connections, change the strategy of external communications [14].

Communication plays an important role in the situation of crisis. Existing models of public sector communication are characterized by their disadvantages and advantages (Table 1). Two models of communication are specially designed to ensure government communication (the model of government communication process and the model of synthesis of crisis communications). Three models have been developed for public relations (public relations process model, two-way symmetric model and emergency theory).

**Table 1** Five Public Relations Models [10]

<b>Model</b>	<b>Strengths</b>	<b>Weaknesses</b>	<b>Elements Applied to Government Communication Decision Wheel</b>
Government Communication Process Model	Developing public sector environmental constraints; identification of the selection process of various government communication vehicles.	Allows for asymmetrical one-way communication; typology more than a theory foundation	Inclusion of environmental constraints in public sector; idea of adaptation of communication strategy based on specific environmental constraints in public sector.

Public Sector Crisis Communication Synthesis Model	Developing variety of environmental constraints in public sector	Applies to crisis situations; allows for asymmetrical one-way communication	Inclusion of environmental constraints in public sector.
Public Relations Process Model	Explanation of organizations interact with environment and change.	Biased toward private corporate sector; need details on the subsystem dimensions.	Concept of subsystems and supersystem.
Two-Way Symmetrical Model	Combines two-way and mixed-motives symmetrical; explanation organizations adaptation strategies in order to meet effectively the publics' and the organization's needs.	Does not account for unique public sector environment. Does not allow for communication in one-way;	Combine two-way asymmetrical and symmetrical communication; concept of adapting strategies in organizations in order to meet publics' needs.
Contingency Theory Model	Explanation of the practice of public relations contingency depend on factors, which vary across environment, situation, time, and publics.	Applied only to conflict resolution; factors focus only on private sector considerations.	Concept where there is no one-size-fits, all approach to the practice in public relations.

The considered models of communication are not confirmed empirically. There are no experimental studies of the effectiveness of public sector communication models in a crisis. At the same time, the type of crisis situation never repeats again. Here the different preconditions, the causes of the crisis and the level of professionalism of public administration bodies given are taken into account. There is no research in the scientific literature concerning the effectiveness of crisis management in countries with economies in transition, where democracy is in the process of development. Instead, communication models are more focused on the usage in democratic and well-developed countries.

### 3. DATA AND METODOLOGY

The study is based on the concepts of organized legitimacy, non-institutional theory and attribution theory. The attributes of government public relations and the level of communication in crisis periods of transition economies are measured on the basis of The Worldwide Governance Indicators (WGI).

Panel data based on The Worldwide Governance Indicators (WGI) for 1996-2018 in terms of transition economies were used to assess the effectiveness of governance subsystems (Voice and Accountability, Political Stability and Absence of Violence / Terrorism, Government Effectiveness, Regulatory Quality, Rule of Law, Control of Corruption). The variable is the annual GDP growth rate and it reflects the level of organization of crisis management in the crisis period. GDP growth reflects the ability of the public sector to ensure macroeconomic stability, as it is determined by Worldwide Governance Indicators.

A linear regression model and a co-integrated regression model were built in order to assess the effectiveness of the organization of crisis management in public administration. Granger Causality Test was chosen to identify long-term causal relationships between variables.

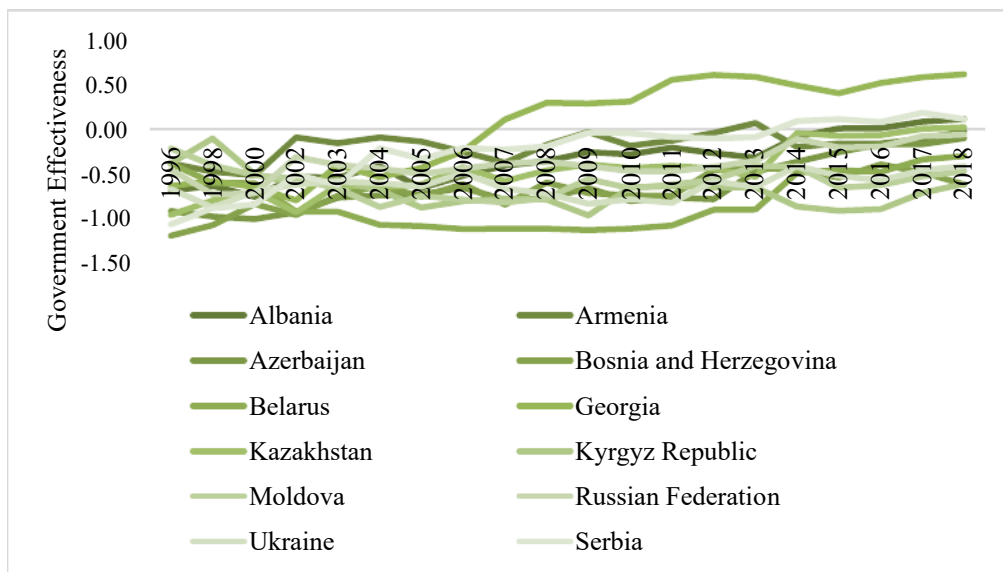
### 4. RESULTS AND DISCUSSION

Countries with economies in transition are often exposed to crises due to weak institutions, government efficiency and macroeconomic instability. The first crisis was in the 1990s due to

a serious transition to a market economy. This study focuses on the crisis periods of the following years: 1) the crisis of 1998; 2) the crisis of 2008-2009; 3) the crisis of 2014-2015. The level of public administration and governance determined the effectiveness of the management during the crisis in the situation of transition economies.

In general, convergence in the efficiency of public administration is typical for transition economies (Figure 1). The effectiveness of public administration was weak until 2007-2008, so crisis management was characterized by low efficiency of the organization. Georgia is one of the first countries with transition economies that could reach a new level of efficiency. The figure doubled during 2008-2018: from 0.30 to 0.61.

It should be noted that the efficiency of governance of transition economies is significantly transformed in times of crisis and therefore the overall management system of public authorities is changing. Transformations are clearly seen in 1999-2000, 2007-2008, 2014-2015 (Figure 1).



**Figure 1** Government Effectiveness\* in transition economies in 1996-2018

**Note:** \*Estimate of governance (ranges from approximately -2.5 (weak) to 2.5 (strong) governance performance). Reflects perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies.

The efficiency of the government decreases in times of crisis, which indicates a low level of organization of crisis management, the unwillingness of public administration to act in the situation of economic recession. Lack of plans and predictions of the situation deteriorates the conditions for decision-making in crisis situations.

The average annual GDP growth rate in transition economies was 4.96% in 1996-2018, corruption control was -0.72, government efficiency was -0.47, political stability was -0.42, and the regulatory environment was -0.30, legality -0.66, Voice and Accountability -0.54 (Table 2). These data make it possible to empirically study theories of neo-institutionalism and the theory of attribution in the context of the effectiveness of the concept of organized legitimacy, which is based on the legitimacy of power.

**Table 2** Descriptive statistics

	<b>GDP_GROWTH_ ANNUAL</b>	<b>CONTROL_OF_C ORRUPTION</b>	<b>GOVERNMENT_ EFFECTIVENESS</b>	<b>POLITICAL_STA BILITY_AND_AB SENCE_OF_VIO LENCE_TERRORISM</b>	<b>REGULATORY_ QUALITY</b>	<b>RULE_OF_LAW</b>	<b>VOICE_AND_AC COUNTABILITY</b>
Mean	4,96	-0,72	-0,47	-0,42	-0,30	-0,66	-0,54
Median	4,62	-0,77	-0,50	-0,40	-0,33	-0,71	-0,46
Maximum	88,96	0,79	0,61	0,78	1,12	0,38	0,34
Minimum	-14,76	-1,53	-1,19	-2,14	-1,77	-1,37	-1,77
Std. Dev.	7,67	0,40	0,36	0,53	0,46	0,35	0,56
Skewness	5,66	1,13	0,65	-0,55	-0,08	0,26	-0,31
Kurtosis	62,57	5,25	3,42	3,51	4,32	2,92	1,89
Observations	240	240	240	240	240	240	240
Jarque-Bera	36765,97	101,82	18,77	14,51	17,58	2,76	16,01
Probability	0,0000	0,0000	0,0001	0,0007	0,0002	0,2519	0,0003

In addition, empirical results will make it possible to investigate experimentally the effectiveness the response of public authorities to the crisis situation based on an assessment of the level of stability. The annual GDP growth rate was chosen as an effective variable that can reflect the level of organization of crisis management. GDP growth reflects the ability of the public sector to ensure macroeconomic stability, as determined by Worldwide Governance Indicators.

Macroeconomic instability can be seen in transition economies in two moments: pre-crisis periods, which are characterized by rapid economic growth; crisis and post-crisis, characterized by a sharp economic decline. Such fluctuations are confirmed statistically by means of estimates of minimum, maximum values of indicators and standard deviation for 1996-2018.

The organization of crisis management in the public sector of transition economies is at a low level and is characterized by a lack of impact on the macroeconomic situation and economic growth. GDP growth rates are not determined by political stability, the legitimacy of public authorities in transition economies. The level of democracy in transition economies is weak. Freedom of thought, association collaboration and the media are low. This means the weak legitimacy of government and therefore the communication possibilities of public authorities in transition economies may have little effect on public opinion (Table 3).

**Table 3** Regression estimates: Dependent Variable: Gdp\_Growth\_Annual, Method: Panel Least Squares

<b>Dependent Variable: GDP_GROWTH_ ANNUAL</b>				
Method: Panel Least Squares				
Date: 06/03/20 Time: 12:52				
Sample: 1996 2018				
Periods included: 20				
Cross-sections included: 12				
Total panel (balanced) observations: 240				
Variable	Coefficient	Std. Error	t-Statistic	Prob.

<b>Dependent Variable: GDP_GROWTH_ANNUAL</b>				
CONTROL_OF_CORRUPTION	3.784625	2.03927 2	1.85587 0	0.0647
GOVERNMENT_EFFECTIVENESS	- 8.403676	2.42737 8	- 3.46203 9	0.0006
POLITICAL_STABILITY_AND_ABSENCE_OF_VIOLENCE_TERRORISM	- 1.002265	0.99776 9	- 1.00450 7	0.3162
REGULATORY_QUALITY	0.911515	2.10596 1	0.43282 6	0.6655
RULE_OF_LAW	2.837286	3.06930 8	0.92440 6	0.3562
VOICE_AND_ACCOUNTABILITY	- 1.834927	1.14638 4	- 1.60062 2	0.1108
C	4.505527	1.25319 8	3.59522 3	0.0004
Root MSE	7.367733	R-squared		0.07412 7
Mean dependent var	4.956084	Adjusted R-squared		0.05028 5
S.D. dependent var	7.672995	S.E. of regression		7.47758 8
Akaike info criterion	6.890431	Sum squared resid		13028.0 4
Schwarz criterion	6.991949	Log likelihood		- 819.851 7
Hannan-Quinn criter.	6.931335	F-statistic		3.10908 0
Durbin-Watson stat	0.931829	Prob(F-statistic)		0.00599 2

The probability of political instability of transition economies and the emergence of terrorism is high. Still, the presence of violence and people's perception of the possibility of a political crisis in transition economies does not contradict the effectiveness of crisis management. It is so because the communication of public authorities does not inspire public confidence. The public sector has little impact on the crisis as a whole.

The degree of dependence of public administration bodies on political pressure is high in transition economies. At the same time, the level of quality of public services and civil officials is low. Crisis management does not stabilize the crisis situation in the combination with the poor quality of development, implementation of public sector policy and the real support of the government policy.

Contribution to the ability of public administration bodies to formulate and implement profound policies, crisis management strategies and regulations that promote the development of the private sector in a society in transition economies are weak. An additional negative factor in the effectiveness of crisis management is the public perception of the level of trust and implementation of the rules in the country. Such rules include, first of all, the institution of property rights, the police and the judiciary, the probability of crime and violence occurrence.

The weakness of these institutions in transition countries leads to the lack of trust in the communications of public sector bodies in the situation of crisis. The legitimacy of power is weak. The level of perception of corruption control is weak. the activity of public authorities is

characterized by the predominance of their own interests. According to the theory of neo-institutionalism and the theory of attribution, the effectiveness of the organized legitimacy of transition economies is low due to the weak legitimacy of the power of public administration.

Factors and reasons of crisis management effectiveness are co-integrated. The Granger Causality Test shows a long-term relationship between crisis management and macroeconomic stability (Table 4). Economic growth provides political stability, efficiency of the regulatory environment. Corruption control determines the effectiveness of government policy, the regulatory environment and the level of legitimacy and legitimacy of the public sector. Political stability and the level of democracy in the country determine the level of control over corruption.

**Table 4** Pairwise Granger Causality Tests

<b>Pairwise Granger Causality Tests</b>		
Date: 06/03/20 Time: 13:24		
Sample: 1996 2018		
Lags: 2		
Null Hypothesis:	F-Statistic	Prob,
GDP_GROWTH_ ANNUAL_ does not Granger Cause POLITICAL STABILITY AND ABSENCE OF VIOLENCE TERRORISM	3,01432	0,0512
GDP_GROWTH_ ANNUAL_ does not Granger Cause REGULATORY QUALITY	2,69298	0,0700
CONTROL OF CORRUPTION does not Granger Cause GOVERNMENT EFFECTIVNESS	2,62346	0,0749
POLITICAL STABILITY AND ABSENCE OF VIOLENCE TERRORISM does not Granger Cause CONTROL OF CORRUPTION	3,14362	0,0452
CONTROL OF CORRUPTION does not Granger Cause REGULATORY QUALITY	8,54988	0,0003
CONTROL OF CORRUPTION does not Granger Cause RULE OF LAW	7,53901	0,0007
VOICE AND ACCOUNTABILITY does not Granger Cause CONTROL OF CORRUPTION	2,91384	0,0565
GOVERNMENT EFFECTIVNESS does not Granger Cause REGULATORY QUALITY	2,59615	0,0769
GOVERNMENT EFFECTIVNESS does not Granger Cause RULE OF LAW	3,41089	0,0348
RULE OF LAW does not Granger Cause POLITICAL STABILITY AND ABSENCE OF VIOLENCE TERRORISM	4,79220	0,0092
POLITICAL STABILITY AND ABSENCE OF VIOLENCE TERRORISM does not Granger Cause VOICE AND ACCOUNTABILITY	3,94366	0,0208
RULE OF LAW does not Granger Cause REGULATORY QUALITY	3,84940	0,0228
REGULATORY QUALITY does not Granger Cause RULE OF LAW	5,71453	0,0038
VOICE AND ACCOUNTABILITY does not Granger Cause REGULATORY QUALITY	3,20237	0,0426

The effectiveness of government and the level of political pressure, the quality of strategy and public sector policy determines the ability of the government to formulate and implement profound policy (regulatory environment) and the legitimacy of government (compliance with public rules and regulations, legislation, legality). In general, indicators of public sector governance and performance are characterized by long-term, co-integrated and causal relationships. This determines the effectiveness of crisis management.



The constructed co-integrated regression model explains better the GDP growth rate in transition countries (Table 5) in contrast to the linear regression model (Table 3). Corruption control, the effectiveness of government policy and the regulatory environment are statistically significant indicators of crisis management. It can be argued that an increase of 1 point in the level of corruption control will lead to an annual GDP growth of 11.995% with a significance level of 5%. An increase of 1 point in the level of government efficiency will lead to an annual reduction in GDP by -11.29%. It can be argued that an increase of 1 point in the level of quality of the regulatory environment will lead to an annual reduction in GDP by -5.24% with a significance level of 10%.

**Table 5** Regression estimates: Dependent Variable: Gdp\_Growth\_Annual, Method: Panel Fully Modified Least Squares (FMOLS)

<b>Dependent Variable: GDP_GROWTH_ANNUAL</b>				
Method: Panel Fully Modified Least Squares (FMOLS)				
Date: 06/03/20		Time: 13:14		
Sample (adjusted): 1998		2018		
Periods included: 19				
Cross-sections included: 12				
Total panel (balanced) observations: 228				
Panel method: Pooled estimation				
Cointegrating equation deterministics: C				
Coefficient covariance computed using default method				
Long-run covariance estimates (Bartlett kernel, Newey-West fixed bandwidth)				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
CONTROL_OF_CORRUPTION	11.99544	3.599115	3.332887	0.0010
GOVERNMENT_EFFECTIVENESS	-11.29109	3.235701	-3.489534	0.0006
POLITICAL_STABILITY_AND_ABSENCE_OF_VIOLENCE_TERRORISM	0.269022	1.177979	0.228376	0.8196
REGULATORY_QUALITY	-5.244578	2.795555	-1.876042	0.0620
RULE_OF_LAW	0.252054	4.064573	0.062012	0.9506
VOICE_AND_ACCOUNTABILITY	-1.929952	2.250451	-0.857585	0.3921
R-squared	0.172011	Mean dependent var		4.736222
Adjusted R-squared	0.104983	S.D. dependent var		5.343319
S.E. of regression	5.055065	Sum squared resid		5366.273
Long-run variance	36.83855			

The results confirm the theory of neo-institutionalism and the theory of attribution. The principles of the theory are not implemented in transition economies, so there is no connection between the strategy of crisis response and crisis. In fact, transition economies do not have crisis response strategies. The crisis processes of 2020 confirm the lack of a response strategy. In particular, Ukraine has not formed a policy of public authorities concerning actions and decisions. There are no mechanisms for supporting of the private sector.

Just as neo-institutionalism is based on the concept of organized legitimacy, social rules and stakeholder expectations, the principle of legality, transition economies are characterized by the absence of elements of neo-institutionalism and the theory of attributes in crisis conditions. It should be admitted that there are no such important elements in the organization of crisis management as political stability, external or personal control [9], which play an important role in ensuring legitimacy. There is no "crisis response" [10] as an important component of crisis management strategy.

In fact, there is no understanding of the possible dynamics of the crisis situation, which does not ensure the effectiveness of overcoming the crisis [15]. Additional negative factors are the state of pre-crisis management and public sector measures, lack of external communication strategy, structural changes [14]. Management strategy plays a key role in crisis management. When the inevitability of a crisis becomes clear, the strategy of crisis management pays attention to the problems and means of overcoming the crisis [16].

Instead, transition economies are characterized by unclear actions and plans, lack of crisis management strategies. Differences in the level of social trust and impartial public administration affect the level of public confidence in crisis management institutions in the EU [17]. Our study confirms similar studies on the impact of public perception of crisis management institutions.

## 5. CONCLUSION

The study is an experimental confirmation of theories of neo-institutionalism and attribution on the examples of transition economies. The study allows us to confirm a number of important conclusions:

1. The efficiency of governance in transition economies is significantly transformed in times of crisis, and therefore the overall management system of public authorities is changing. The efficiency of the government decreases in times of crisis, which indicates a low level of organization of crisis management, the unwillingness of public administration to act in an economic recession. Lack of plans and predictions of the situation deteriorates the conditions for decision-making in crisis situations.
2. The organization of crisis management in the public sector of transition economies is at a low level and is characterized by a lack of impact on the macroeconomic situation and economic growth. Macroeconomic instability can be seen in transition economies in two forms: pre-crisis periods, which are characterized by rapid economic growth; crisis and post-crisis, characterized by a sharp economic decline.
3. The level of democracy in transition economies is weak. Freedom of thought, association collaboration and media activities are low. This means that the legitimacy of government is weak and therefore the communication of public authorities in transition economies may have little effect on public opinion. As public administration communication does not inspire public confidence, the public sector has little effect on the crisis as a whole. Crisis management does not stabilize the crisis situation in the combination with the poor quality of development, implementation of public sector policy and the level of credibility to government policy.

4. An additional negative factor in the effectiveness of crisis management is the public level of trust and compliance with the rules in the country. The effectiveness of the organized legitimacy of transition economies is low according to the theory of neo-institutionalism and the theory of attribution. This is so due to the weak legitimacy of authorities of public administration.

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