

Financial Crisis Management of Business in Eastern Europe in the Context of the Resilience Increase of National Economic Systems

Maxim V. Khatser^{1,*} and Yuliia A. Perehuda²

¹*Department of Entrepreneurship, Management of Organizations and Logistics, Faculty of Management, Zaporizhzhia National University, Zaporizhzhia, Ukraine*

²*Department of Economic and Social Geography, Geography Faculty, Taras Shevchenko National University of Kyiv, Kyiv, Ukraine*

Abstract: *Motivation:* The research has noted great problems of post-Soviet Eastern European countries related to resilience securing of national economic systems, where the defining role belongs to financial crises at the micro-level caused by problems in the development and implementation of financial crisis management. The objective of this research is to study the problems of ensuring the operational efficiency of economic entities in Eastern Europe and to develop a set of measures to increase this efficiency.

Novelty: The scientific novelty of the article is a developed set of ways to increase the performance of financial crisis management at the enterprises of post-Soviet Eastern European countries.

Methodology and Methods: The methods of data study used in this research represent the quantitative analysis of statistic data. The research has also used the forecasting method of time series, which has suggested using regression functions to forecast future values based on data observed earlier.

Data and Empirical Analysis: To conduct the research, data on four Eastern European countries, which were a part of the Soviet Union, for 2008-2018 have been taken.

Policy Considerations: Post-Soviet Eastern European countries within the resilience securing of their national economic systems require the development and implementation of ways to increase the performance of financial crisis management at enterprises.

Keywords: Financial crisis management, post-Soviet Eastern European countries, Crises, Resilience of economic systems, Financial crises.

1. INTRODUCTION

Any system in its development overcomes crisis periods that drastically change its components, structure, movement vector, and directions for cooperation with other systems. The same can be stated regarding economic systems, which include everything starting from the world economy and ending with the separate smallest enterprises.

Scientists from different world countries thoroughly explore problems of crises. Most of them are trying to examine crises at the macro-level in the context of their development in world, international, and national economic systems (Lalonde, 2007; Filipa and Raffournier, 2014; Gkillas, Tsagkanos and Vortelinos, 2019), another part of researchers emphasizes the importance of the crises study in particular economic entities (Šontaitė-Petkevičienė, 2014; Bundy and Pfarrer, 2015; Bundy *et al.*, 2017).

At the same time, the majority of scientists have concluded the importance of the economic system management within its crisis development, namely crisis management implementation (Hart, Heyse and Boin, 2001; Sahin, Kapucu and Unlu, 2008; Zamoum and Gorpe, 2018). At the same time, the research has determined that the emphasis on the development and implementation of crisis management is significantly shifting from macroeconomic systems to separate enterprises (Sapriel, 2003; Simola, 2014; Li and Chen, 2015). In this context, it is appropriate to highlight the point of view done by Coombs (2012) and supported by a great number of scientists and managers-practitioners. It describes a three-step approach of crisis management during pre-crisis, crisis, and post-crisis periods of the subjects of entrepreneurial activity.

The study has identified that analysis and fight against crises in economic systems at all levels of their operations are crucially relevant for countries that have just started developing their economies and have also faced various crisis manifestations within this process (Gurtner, 2010; Green, King and Miller-Dawkins, 2010). Economies of such countries and their enterprises can be compared with a sick person who does not have a

*Address correspondence to this author at the Department of Entrepreneurship, Management of Organizations and Logistics, Faculty of Management, Zaporizhzhia National University, Zaporizhzhia, Ukraine;
Tel: +380617644546; Fax: +380612287500;
E-mail: docteurdeluniversite@yahoo.com

JEL classifications: G33; H12; L26.

natural immunity to new disease and s/he needs a viable medicine and the appropriate course of treatment to which the authors include crisis management and its components.

In this context, post-Soviet Eastern European countries need special attention because, after the long period of operating within command-and-control economy with its rejection of crises as an economic phenomenon, they have faced crises development at different levels of economic systems and are suffering from the inability to fight against them (Smith and Swain, 2010; Marchak, Magkiy and Yaroshchuk, 2016; Havrylyshyn, Meng and Tupy, 2016). Such a situation leads to a decrease in the pace of development and impossibility to realize economic potential at both the macro-level (national economy) and the micro-level (separate enterprises). The development of financial crises at the subjects of entrepreneurial activity from post-Soviet Eastern European countries is of great concern. It is one of the main reasons for the resilience decrease of the national economies of these countries.

The situation provided above increases the importance of financial crisis management study at enterprises located in post-Soviet Eastern European countries. While doing it, the research has identified significant problems in conducting such studies, where:

1. Foreign scientists emphasize the importance of crisis management at enterprises not focusing on fighting against financial crises of economic entities and not taking into account operation peculiarities of companies located in post-Soviet Eastern European countries (Alpaslan, Green and Mitroff, 2009; Batorski, 2011; Peng and Wang, 2017).
2. Scientists from Eastern European countries that were a part of the Soviet Union are trying:
 - either to study problems of financial crisis management at enterprises of one country (Glukhova, 2011; Shpilina and Rodionova, 2014; Masharsky *et al.*, 2018; Pysmenna, 2018);
 - or to study separate components of financial crisis management at enterprises (Cherep, Bugaj and Shevchenko, 2015; Bondarchuk, Druhov and Voloshyn, 2017; Cherba *et al.*, 2019).

The problems described above require additional scientific research on the increase of financial crisis management efficiency at enterprises located in post-

Soviet Eastern European countries in the context of securing resilience of their national economic systems. In this regard, the purpose of this study is to study the problems of ensuring the operational efficiency of economic entities in Eastern Europe and to develop a set of measures to increase this efficiency.

Based on the objective stated above, a number of scientific problems are solved in the work:

- estimation of the role of unprofitable enterprises in economies of post-Soviet Eastern European countries;
- assessment of the impact on financial crisis management on national economic systems resilience of post-Soviet Eastern European countries;
- separation and estimation of key negative impact factors on business units in post-Soviet Eastern European countries in their external, immediate, and internal environments;
- the development of ways to increase the efficiency of financial crisis management at enterprises of post-Soviet Eastern European countries within securing increase of resilience of their national economic systems.

2. MATERIALS AND METHODS

The methods of data study used in this research represent the quantitative analysis of statistic data on the dynamics of an unprofitable enterprises' share in post-Soviet Eastern European countries for eleven years with the implementation of univariate techniques (UT) based on random sampling. The research has also used the forecasting method of time series, which has suggested using regression functions to forecast future values based on data observed earlier. To estimate the dynamics of an unprofitable enterprises' share in the countries selected for the study the authors have made a three-year forecast with the implementation of linear, exponential, polynomial, logarithmic, and power functions of regression and program possibilities of a computer program titled Stata 7.0. To choose an appropriate forecast function the value of the coefficient of determination (R^2) has been used. However, it should be mentioned that the forecast has been done according to the tendencies determined in previous periods. Separately, based on the usage of panel data on interviews of top-mangers of 30 profitable and 30 unprofitable enterprises located

in each of the countries chosen for the study, the research has identified key negative impact factors of external, immediate and the subjects of entrepreneurial activity. In addition, thirty enterprises have been divided into 10 big, 10 medium, and 10 small business units.

The research methodology is based on system and functional, historical, and system approaches for the disclosure and solving problems related to an efficiency increase of financial crisis management at enterprises within securing resilience increase of economic systems of post-Soviet Eastern European countries. The system and functional approach allows to identify the efficiency impact of economic entities on the economic resilience of post-Soviet Eastern European countries. The historical approach is used to estimate the dynamics of unprofitable enterprises' share in post-Soviet Eastern European economies. The system approach enables to regard enterprises, both their operation unprofitability and profitability, as elements of economic systems of post-Soviet Eastern European countries.

The work represents financial crisis management and its efficiency at the micro-level as one of the key elements of securing resilience increase of economic systems of post-Soviet Eastern European countries. The research is based on the assumption that Eastern European enterprises from post-Soviet economies require the identification and removal of problems on financial crisis management with a focus on the development of optimization activities and the identification of key negative impact factors.

3. RESULTS

3.1. The Evaluation of Unprofitable Enterprises' Role in Economies of Post-Soviet Eastern European Countries

The countries that were members of the Soviet Union are adapting to the operating demands in a single world economic space rather difficult. They are permanently under pressure of crisis development factors formed within world, international and national economic crises. The situation stated above proves a critically low economic systems resilience of such countries. Yet, it is possible to allocate a number of main impact factors on the economic resilience of these countries (Figure 1).

The efficiency of enterprises is one of the key issues of economics and management. Increasing efficiency in the ever-growing competition of the modern economy gives enterprises the opportunity to survive, which is a key condition for achieving other goals, such as growth, development, maximizing managerial benefits or increasing market value, which is also important. In this sense, enterprises of Eastern Europe are no exception.

Taking into account the specific character of economic systems formation in post-Soviet Eastern-European countries, the authors find it appropriate to state that the operational efficiency of economic entities.

The operational efficiency of the enterprise is the achievement of the best balance between the

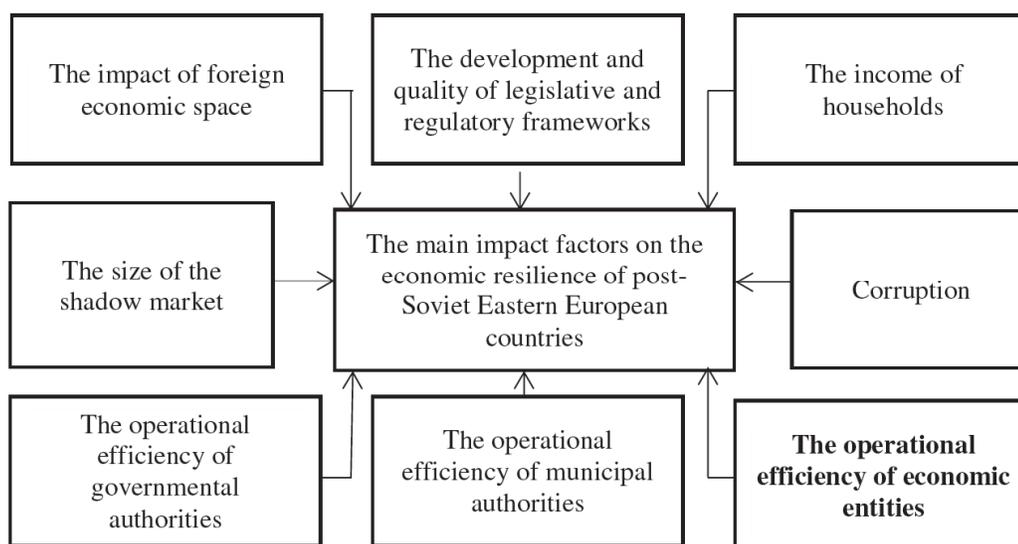


Figure 1: The main impact factors on the economic resilience of post-Soviet Eastern European countries.

Source: developed by the authors.

resources involved and the final results of work. At the same time, we are not talking about simple resource saving, but about the optimal use of these resources, for which a set of certain strategies is being implemented. Many of them involve fundamental changes in the organization.

The operational efficiency of economic entities finds their reflection in profitable and unprofitable work, is related to and has some impact both on the economic resilience of these countries and other factors determined in Figure 1, namely:

- unwillingness and impossibility to resist external impacts from the side of some enterprises lead to the low adaptability of the national economy to such an impact at the macro-level;
- low legal culture and legal nihilism of a significant number of owners and managers who are subjects of entrepreneurial activity decrease drastically the operational efficiency of state and municipal authorities as well as the legal space (legislative and regulatory frameworks) of economic systems operation in post-Soviet Eastern European countries. It finds its reflection in the considerable size of the shadow market and a high level of corruption;
- a narrow base of profit earning by households in post-Soviet Eastern European countries. The main source of the population's income is selling resources to the subjects of entrepreneurial activity. This, in turn, leads to the critical dependence of these countries' households on the operational efficiency of enterprises.

Summing up the stated above, the research identifies the key role of the operational efficiency of economic entities in securing the resilience of economic systems in post-Soviet Eastern European countries. Nevertheless, the main aspect is still the profitability or unprofitability of enterprises' operation as a key criterion of their operational efficiency. At the same time, operation unprofitability proves the presence of financial crisis indicators at enterprises. It requires the development and implementation of financial crisis management.

Thus, the dynamics analysis of unprofitable enterprises' share in the national economy as to post-Soviet Eastern European countries and the correlation of this dynamics with various periods of economic systems development chosen for the countries' study

will allow to estimate the impact of such subjects of entrepreneurial activity on the economic resilience of national economies and problems of financial crisis management development.

Within the research, it is essential to outline clearly both countries that will be taken for the analysis and periods of its conducting.

Describing the countries under study, it is appropriate to choose Belarus, the Russian Federation, Ukraine and Moldova because these countries have the same elements of national economies development (all three countries were part of the USSR, are located (in whole or in part, as the Russian Federation) in Europe, have similar problems of administering the economy and overcoming the technological gap from developed European countries), while GDP per capita of these countries is at a relatively close level, significantly less than in EU countries (GDP per capita at purchasing power parity in 2018 according to the IMF: Belarus – \$19,941/year; Russian Federation – \$28,797/year; Ukraine – \$9,287/year ; Moldova – \$7,307/year).

At the same time:

- the authors consider irrelevant to add Lithuania, Latvia, and Estonia to the study, as their economic systems are operating within the single economic environment of the European Union and have significant differences from national economies of the countries chosen for the study;
- development specifics of Armenia, Azerbaijan, and Georgia, as well as their relatively weak industrial potential make it inappropriate to include these countries to the study;
- other countries from the post-Soviet space are related to Asian countries (Kazakhstan has a small territory that is located in Europe).

Regarding the period, in the study, it is essential to disclose changeable shares of unprofitable enterprises in both the period of economic crisis and periods of post-crisis re-establishment of national economies. Such a situation requires the research of the period from 2008 until 2018 when one global (2008-2009) and one international (2014-2016) crises happened. At the same time, the period of the global crisis is determined by its development in the countries chosen for the study, while the crisis of 2014-2016 mainly affected

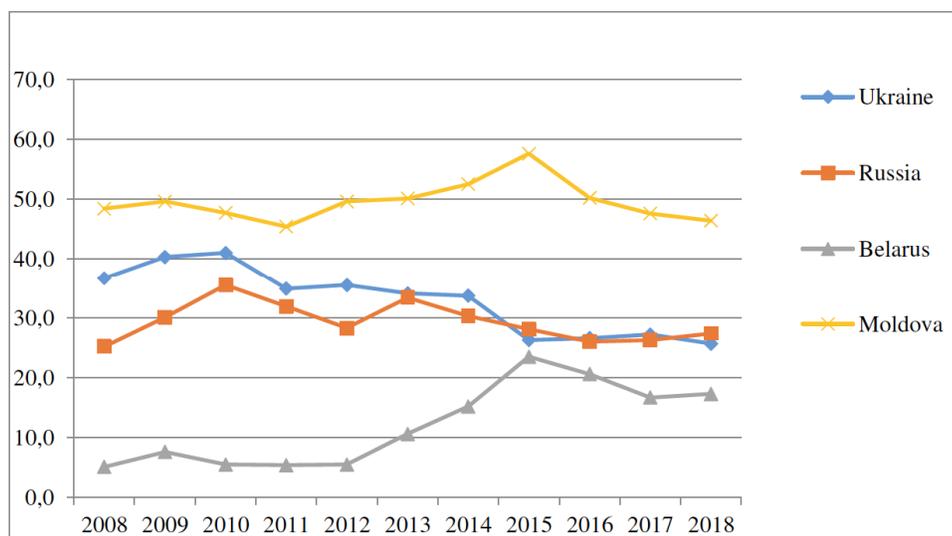


Figure 2: The dynamics of unprofitable enterprises' share in post-Soviet Eastern European countries during 2008-2018, %.

*- Developed by the author based on the sources: State Statistics Service of Ukraine (2019), Federal State Statistic Service of the Russian Federation (2019), National Statistical Committee of the Republic of Belarus (2019), National Bureau of Statistics of the Republic of Moldova (2019).

only countries from the post-Soviet space with the most significant consequences for Ukraine.

Given the restriction stated above, the dynamics of unprofitable enterprises' share located in post-Soviet Eastern European countries during the period chosen for the study is provided below (Figure 2).

Based on the results of the analysis of the dynamic of unprofitable enterprises' share in post-Soviet Eastern European countries in 2008-2018, it is possible to make several conclusions, namely:

1. The critically high share of unprofitable enterprises in all countries chosen for the study during the whole period of the research, except for Belarus from 2008 until 2012. Still, the most negative situation related to the unprofitability of enterprises was in Moldova, where almost half of the enterprises operated with losses; and the most positive situation was in Belarus, where one unprofitable enterprise accounted for six enterprises operating with revenue. In Ukraine and Russia, every four enterprises operated at a loss.
2. The crisis of 2008-2009 led to an increase of unprofitable enterprises' share in all countries without any exceptions. During the crisis of 2014-2016, unprofitable enterprises' share increased only in Belarus and Moldova, while Russia and Ukraine observed opposite trends.
3. A part of unprofitable enterprises in the countries under the study artificially created its own "unprofitability" in order to optimize taxation. It also happened within the continuation of "grey" privatization processes of state property at prices far less than market ones.
4. The low rates of unprofitable enterprises' share in Belarus are caused by peculiarities of financial and economic activity performance by enterprises. Another cause is a great number of state enterprises, where profitability is often created at the cost of state orders.
5. The reduction of unprofitable enterprises' share in Ukraine and Russia during the period from 2014 until 2018 was caused by:
 - the bankruptcy of some enterprises that had been operating at a loss before this period and which failed to sustain their competitiveness at the appropriate level during the economic crisis and the post-crisis re-establishment of national economies;
 - closure of a great number of small private organizations that were created to optimize taxation and hardly fulfill any economic activities;
 - the control increase over unprofitable enterprises on the part of fiscal bodies under the decrease of taxes flows to budgets of various levels not to allow their "artificial" unprofitability.

6. On the one hand, the high rate of unprofitable enterprises in post-Soviet Eastern European countries regardless presence or absence of crisis manifestations in national economies of these countries proves significant problems in the creation of operational management tools for not allowing and fighting against financial crisis at the micro-level. On the other hand, so high share of unprofitable economic entities drastically reduces the resilience of economic systems in the countries chosen for the study because it is regarded as a permanent

destabilization factor in their development and does not allow them to realize economic potential completely at the macro- and micro-levels.

Taking into account the stated above, it is appropriate to make a three-year forecast of changes in unprofitable enterprises' share of post-Soviet Eastern European countries (Figure 3) based on the regression analysis, software possibilities of the computer program Stata 7.0 as well as the methodology developed by a group of scientists

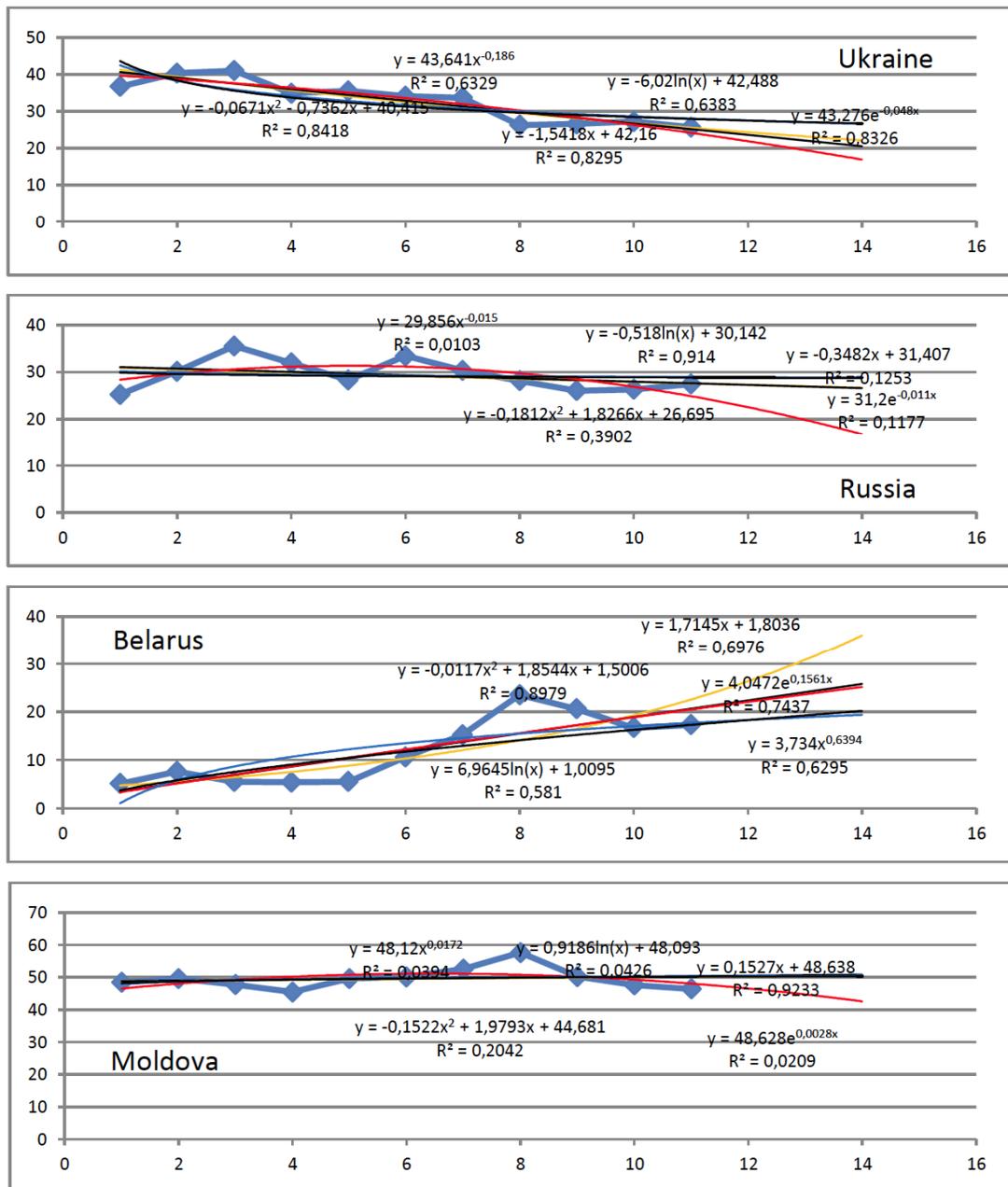


Figure 3: A three-year forecast of changes in unprofitable enterprises' share of post-Soviet Eastern European countries. Source: compiled by the authors.

Table 1: The Values of Regression Functions and Coefficients of Determination within a Three-Year Forecast of the Dynamics of Unprofitable Enterprises' Share of Post-Soviet Eastern European Countries

Countries	The values of the regression function	The value of the coefficient of determination (R^2)
Ukraine	Linear: $y=1,5418x+42,16$	0.8295
	Exponential: $y=43,276e^{-0,048x}$	0.8326
	Polynomial: $y=-0,0671x^2-0,7362x+40,415$	0.8418
	Logarithmic: $y=-6,02\ln(x)+42,488$	0.6383
	Power: $y=43,641x^{-0,186}$	0.6329
Russia	Linear: $y=-0,3482x+31,407$	0.1253
	Exponential: $y=31,2e^{-0,011x}$	0.1177
	Polynomial: $y=-0,1812x^2+1,8266x+2626,695$	0.3902
	Logarithmic: $y=-0,518\ln(x)+30,142$	0.914
	Power: $y=29,856x^{-0,015}$	0.0103
Belarus	Linear: $y=1,7145x+1,8036$	0.6976
	Exponential: $y=4,0472e^{0,1561x}$	0.7437
	Polynomial: $y=-0,0117x^2+1,8544x+1,5006$	0.8979
	Logarithmic: $y=6,9645\ln(x)+1,0095$	0.581
	Power: $y=3,734x^{0,6394}$	0.6295
Moldova	Linear: $y=0,1527x+48,638$	0.9233
	Exponential: $y=48,628e^{0,0028x}$	0.0209
	Polynomial: $y=-0,1522x^2+1,9793x+44,681$	0.2042
	Logarithmic: $y=0,9186\ln(x)+48,093$	0.0426
	Power: $y=48,12x^{0,0172}$	0.0394

Source: developed by the authors.

(Kalinichenko, Shmygol and Kostoglod, 2010). In this forecast, the authors will take the coefficient of determination (R^2) as an element of the selection of regression function.

Five regression functions have been calculated for each country selected to make a forecast. They include a linear, an exponential, a polynomial, a logarithmic, and a power function. All values of regression functions and coefficients of determination (R^2) obtained through this calculations are represented in Table 1.

Based on the data provided in Figure 3 and Table 1, the research has reached the following conclusions:

- a three-year forecast of the dynamics of unprofitable enterprises' share for Ukraine should be done in accordance with the polynomial regression function, where the value of the coefficient of determination equal to 0.8418 indicates that the model is rather good for forecasting. Simultaneously, the research has

identified the presence of the downward trend approaching 15 % of the total number of economic entities in the country;

- a three-year forecast of the dynamics of unprofitable enterprises' share for Russia should be done in accordance with the logarithmic regression function, where the value of the coefficient of determination equal to 0.914 indicates that the model is rather good for forecasting. At the same time, the research has identified the presence of an almost horizontal trend in the range from 25 % to 30% of the total number of economic entities in the country;
- a three-year forecast of the dynamics of unprofitable enterprises' share for Belarus should be done in accordance with the polynomial regression function, where the value of the coefficient of determination equal to 0.8979 indicates that the model is rather good for forecasting. At the same time, the research has

identified an almost upward trend with the excess 25% of the total number of economic entities in the country;

- a three-year forecast of the dynamics of unprofitable enterprises' share for Moldova should be done in accordance with the linear regression function, where the value of the coefficient of determination equal to 0.9233 indicates that the model is rather good for forecasting. At the same time, the research has identified an almost horizontal trend at the line 50 % of the total number of economic entities in the country.

The findings have proved that the forecast provided points to the continuity or worsening of the situation with unprofitable enterprises' share in economies of the countries chosen for the study (Ukraine is the exception, though even in this country the share is critically high during the period of the forecast). On the one hand, it will continue to affect their resilience, and on the other hand, it requires the productivity increase of financial crisis management at the micro-level.

3.2. The Necessity and the Impact of Financial Crisis Management on the Resilience of National Economic Systems of the Post-Soviet Eastern European Countries at the Micro-Level

The evaluation of unprofitable enterprises' share (Figure 2) and the forecast of their changes in the post-Soviet Eastern European countries (Ukraine, Russia, Belarus, and Moldova) (Figure 3) specify the critically negative situation in the fight process against financial crises by the subjects of entrepreneurial activity in these countries. This happens even without considering that the part of unprofitable enterprises creates losses "artificially" trying to reach their economic and social goals, for example, taxation optimization, an "airbag" in the case of problems at the main enterprise, "pad-firms" in various financial schemes and other. The situation described above proves the necessity to develop and implement financial crisis management or to increase its efficiency at post-Soviet Eastern European countries.

At the same time, a great number of unprofitable enterprises in the economy of post-Soviet Eastern European countries leads to a decrease in their economic resilience due to:

- the reduction in the amount of fiscal and other types of payments attraction to budgets of

different levels and out-of-budget state (municipal) funds. It drastically decreases the level and quality of service provided to households and legal entities by state (municipal) authorities, including those related to the formation of the state (municipal) order on goods (works, and services) and development of social and economic infrastructure;

- the decrease in the income level of owners, employees, resources suppliers, including households, and such unprofitable enterprises. It affects the formation of the effective demand in the country and restricts the increase of production and the service sector;
- a backlog of the remuneration increase in comparison with the inflation and devaluation of the national currency, which leads to the increase in the share of the poor people in the countries chosen for the study;
- the growth of the unemployed share and difficulties in their search for new working places, which leads to labor migration and particularly to immigration. As a result, the loss of qualified labor forces and the formation of their deficit in the labor market in the post-Soviet Eastern European countries (it is especially critical for Ukraine and Moldova) are happening;
- the reduction of the investment and innovative activities' level of unprofitable enterprises, which decreases their competitiveness and the competitiveness of some spheres and economic systems of the countries chosen for the study in general;
- debts accumulation by unprofitable enterprises in front of their counterparties. Taking into account ineffective mechanisms of bankruptcy that are operating in the post-Soviet Eastern European countries, this accumulation leads to the critical reduction of efficiency and resilience of national economic systems in these countries.

The situation stated above is the consequence of problems on the development and implementation of financial crisis management by the subjects of entrepreneurial activity from the post-Soviet Eastern European countries. The key ones include:

- owners and top managers' misunderstanding of the necessity to conduct financial crisis

management and the importance of its tools usage in the process of financial and economic activities implementation by enterprises;

- the deficit of trained specialists in the sphere of financial crisis management.

In the countries chosen for the study, the research has only identified the presence of bankruptcy commissioners who are working in the stages of reorganization and elimination of subjects of entrepreneurial activity:

- a lack of a well-defined set of key negative factors affecting business units in the countries chosen for the study;
- the insufficient number of effective models for evaluation of bankruptcy probability as well as developed methodologies for diagnostics of financial crisis (financial status) development at post-Soviet Eastern European enterprises that are adapted to the specificity of these economic entities functioning in national economic systems.

Based on the stated above, the research finds it appropriate to conduct the study of main modern negative impact factors on enterprises located in post-Soviet Eastern European countries.

3.3. The Determination of Key Negative Impact Factors on Business Units in the Post-Soviet Eastern European Countries as the Main Element of Financial Crisis Management

Taking into account the problems related to the usage of financial crisis management in post-Soviet Eastern European countries, the key factor of its improvement is the understanding of the main negative impact factors on subjects of entrepreneurial activity. To determine such factors, the following research has been conducted:

1. The survey of top-managers from 30 profitable and 30 unprofitable enterprises located in each country chosen for the study has been conducted. The quantity of 30 enterprises included 10 large, 10 middle and 10 small business units.
2. Enterprises have been divided equally into agriculture, industrial production, and the service sectors.

3. The respondents have been offered to choose up to five key negative impact factors from external, immediate and internal environments. Then they have assigned the impact power to these factors starting from 0 (zero impact on the enterprise) and ending by 10 (a decisive impact on the enterprise). In addition, the respondents have had to identify the share, which three groups of factors take in their problems based on their general size equal to 100 %.
4. Taking into account data obtained, tables of such factors for unprofitable and profitable enterprises have been completed, where their impact power is stated.
5. During the last stage, the research has left only negative impact factors indicated by more than 50 % of respondents and had an impact on enterprises in the range between 7 and 10.

Table 2 demonstrates the key negative impact factors of the external environment on the financial and economic activity of profitable enterprises.

Taking into account stated above, in the post-Soviet Eastern European countries, the hugest negative impact occurred at small and medium profitable enterprises, where the key place belongs to corruption and the interaction with state (municipal) authorities. At the same time, large subjects of entrepreneurial activity have significant difficulties in penetration to and operation in external markets.

Table 3 provides key negative impact factors of external environment on unprofitable enterprises located in post-Soviet Eastern European countries.

A key negative factor for unprofitable enterprises located in the post-Soviet Eastern European countries, regardless of their size, is corruption. At the same time, small and medium enterprises experience fiscal pressure from state authorities. The problems of medium enterprises related to the legal framework and those of small enterprises related to frauds in the business environment need special consideration. Besides, the respondents have given only 15 % of the general influence on the financial and economic activity of their enterprises to these factors.

The next step is to present key negative impact factors of immediate environment on financial and economic activity of profitable enterprises located in post-Soviet Eastern European countries (Table 4).

Table 2: Key Negative Impact Factors of the External Environment on the Financial and Economic Activity of Profitable Enterprises Located in Post-Soviet Eastern European Countries

No	Negative impact factor	The impact power of the factor on enterprises
Large enterprises		
1	An aggressive environment in external markets	8
2	The pressure of state and municipal inspection authorities	8
3	The government fiscal pressure	7
Middle enterprises		
1	Corruption	9
2	The pressure of state and municipal inspection authorities	7
3	The government fiscal pressure	9
4	The time consumption on cooperation with state and municipal institutions	10
5	The quality and efficiency of the legal framework	7
Small enterprises		
1	Corruption	10
2	The pressure of state and municipal inspection authorities	9
3	The government fiscal pressure	8
4	The time consumption on cooperation with state and municipal institutions	9
5	The labor market operation	7
6	Formation of information business environment	8

Source: developed by the authors.

Table 3: Key Negative Impact Factors of External Environment on the Financial and Economic Activity of Unprofitable Enterprises Located in Post-Soviet Eastern European Countries

No	Negative impact factor	The impact power of the factor on enterprises
Large enterprises		
1	Corruption	8
2	The pressure of state and municipal inspection authorities	10
3	The quality and efficiency of the legal framework	9
Medium enterprises		
1	Corruption	10
2	The operation of judicial system	9
3	The quality and efficiency of the legal framework	9
4	The government fiscal pressure	9
Small enterprises		
1	Corruption	10
2	The government fiscal pressure	10
3	The level of fraud in the business environment	8

The source: developed by the authors.

The data provided above indicate that for large profitable enterprises in post-Soviet Eastern European

countries the problem is fund-raising of loans at prices equal to those for foreign competitors as well as the

Table 4: Key Negative Impact Factors of Immediate Environment on Financial and Economic Activity of Profitable Enterprises Located in Post-Soviet Eastern European Countries

No	Negative impact factor	The impact power of the factor on enterprises
Large enterprises		
1	Access to the financial resources	8
2	The price of fund-raising	10
3	The deficit of well-qualified personnel	8
Medium enterprises		
1	The competitors' impact	9
2	The price of fund-raising	8
3	The deficit of well-qualified personnel	8
4	The threat posed by raiders	8
Small enterprises		
1	The poor-quality competition	10
2	The pressure posed by huge producers	9
3	The lack of possibility to raise funds	9
4	The pressure posed by suppliers	7
5	The threat posed by raiders	7

Source: developed by the authors.

attraction of well-qualified personnel, which is actively migrating to economically developed countries. Medium and small enterprises also have critical problems with fund-raising. They have a strong impact from competitors. Yet, taking into account a considerable size of a shadow market, small business cannot grow due to the impact of this market on them, namely due to competition of poor quality. Besides, the respondents have given only 20% of the general impact on the financial and economic activity of their enterprises to these factors.

Table 5 provides key negative impact factors of immediate environment on financial and economic activity of unprofitable enterprises located in post-Soviet Eastern European countries.

The research has identified almost identical impact factors for large and medium enterprises and great resemblance between negative impact factors for profitable and unprofitable small enterprises. Yet, the respondents have given only 25 % of the general impact on the financial and economic activity of their enterprises to these factors.

Table 6 provides key negative internal impact factors on financial and economic activity of profitable enterprises located in post-Soviet Eastern European countries.

The authors emphasize that these factors are rather similar to large and medium enterprises located in post-Soviet Eastern European countries while medium and small businesses complain about problems in financial activity and the marketing quality. The great problem for small enterprises is conflicts among owners and their attempts to conduct management activities by themselves as a leader of economic entities. The respondents have given 70% of the general impact on the financial and economic activity of their enterprises to these factors.

Table 7 provides key negative internal impact factors on the financial and economic activity of unprofitable enterprises located in post-Soviet Eastern European countries.

The authors have observed significant importance of corruption for large and medium unprofitable enterprises located in post-Soviet Eastern European countries when middle and senior managers are actively trying to obtain additional illegal revenues and do not expect to have long cooperation with an enterprise. Besides, thefts are also a problem. They cause particularly harmful effect at large enterprises. At the same time, negative impact factors for small enterprises are rather similar while undertaking profitable and unprofitable activities. The exception is

Table 5: Key Negative Impact Factors of the Immediate Environment on the Financial and Economic Activity of Unprofitable Enterprises Located in Post-Soviet Eastern European Countries

No	Negative impact factors	The impact power of the factor on enterprises
Large enterprises		
1	Access to the financial resources	10
2	The competitors' impact	9
Medium enterprises		
1	The competitors' impact	10
2	Access to the financial resources	9
3	The pressure posed by suppliers	7
Small enterprises		
1	The poor-quality competition	10
2	The pressure posed by huge producers	9
3	The lack of possibility to raise funds	9
4	The pressure posed by suppliers	7

Source: developed by the authors.

Table 6: Key Negative Internal Impact Factors on the Financial and Economic Activity of Profitable Enterprises Located in Post-Soviet Eastern European Countries

No	Negative impact factor	The impact power of the factor on enterprises
Large enterprises		
1	Consumption of fixed capital	9
2	Insufficient innovative activity	9
3	The quality of personnel training	8
Medium enterprises		
1	Consumption of fixed capital	10
2	Financial activity	9
3	The quality of personnel training	9
4	The marketing quality	8
Small enterprises		
1	Financial activity	10
2	The quality of personnel training	10
3	The marketing quality	9
4	Conflicts among owners	8
5	The owner is the director of an enterprise	7

Source: developed by the authors.

only problems with production for unprofitable economic entities. The respondents have given 60% of the general influence on the financial and economic activity of their enterprises to these factors.

Summing up the study conducted, the following facts are to be emphasized:

- an overwhelming majority of respondents point that key negative impact factors on the emergence and development of financial crises at their enterprises are internal ones. A rather low share of such factors for unprofitable enterprises emerge due to the specific nature of

Table 7: Key Negative Internal Impact Factors on the Financial and Economic Activity of Unprofitable Enterprises Located in Post-Soviet Eastern European Countries

No	Negative impact factor	The impact power of the factor on enterprises
Large enterprises		
1	Consumption of fixed capital	10
2	Financial activity	10
3	The volume of thefts	9
4	Corruption	8
Medium enterprises		
1	Consumption of fixed capital	10
2	Financial activity	10
3	The quality of top-managers training	9
4	Corruption	8
Small enterprises		
1	Financial activity	10
2	The quality of personnel training	10
3	The marketing quality	10
4	Conflicts among owners	7
5	Problems in the workplace	7

Source: developed by the authors.

the survey when managers of enterprises are trying to shift problems to the external environment what is regarded as a subjective point of view;

- drastically poor attention is paid to innovative activity. It demonstrates a misunderstanding of its importance for the profitable activity as well as its key position in the structure of financial crisis management by owners, top managers and employees of subjects of entrepreneurial activity;
- none of the respondents gave consideration to financial crisis management. It proves incomprehension of its importance in the financial and economic activity of an enterprise when people try to solve problems arisen based on the situation and the executive's experience. It is not enough in the current circumstances of entrepreneurship development;
- a critically low focus on the development of methodologies for diagnostics and monitoring of enterprise's financial status in the context of fast identification of problem aspects in the financial activity of economic entities;
- an insufficient focus on information provision of management decision making as well as the

fight against the information asymmetry at enterprises.

The findings stated above require recommendations development on the improvement of financial crisis management of the subjects of entrepreneurial activity located in post-Soviet Eastern European countries.

3.4. Ways to Increase Performance of Financial Crisis Management at Enterprises of Post-Soviet Eastern European Countries within Securing the Resilience Growth of their National Economic Systems

The research conducted and problems detected on the usage of financial crisis management as well as attitudes towards it demonstrated by post-Soviet Eastern European economic entities require the development of a set of ways to increase its performance. These ways include:

1. The level increase of propaganda on importance and relevance of financial crisis management at the state and municipal authorities' level with the usage of enterprises that belong to the state or municipal property.
2. The system transformation of specialists training in financial crisis management involving leading higher education establishments of countries

chosen for the study and by adding arbitration managerial specialists in financial crisis management to the institute who will work at enterprises during pre-crisis, crisis and post-crisis periods within the prevention of judicial reorganization and liquidation procedures.

3. Development of effective methodologies for diagnostics of financial state at enterprises incorporating this objective models for the evaluation of bankruptcy probability. These methodologies should be based on foreign experience. Besides, they should address peculiarities of the financial and economic activity implementation by economic entities located in post-Soviet Eastern European countries. At the same time, it is essential to integrate these methodologies and methods into automated systems of management decision-making at enterprises. By doing it, both quantitative and qualitative aspects of the financial and economic activity implementation by these companies will be taken into consideration.
4. Development of effective information systems for the support of management activity, especially during the crisis period in such a way as to provide a sufficient level of their automatization.
5. Development of effective strategies of financial crisis management that will address all potential possibilities of extricating enterprises from the financial crisis and the active attraction of innovation and creative decisions of their staff.

It is appropriate to state that the productivity increase of financial crisis management, which will be based on the suggested list of optimization techniques, will allow to reduce the number of enterprises in post-Soviet Eastern European countries experiencing a financial crisis or to reduce the consequences of such crisis for economic entities. This will significantly increase the resilience of the national systems of these countries through the increase of economy resilience at the micro- (particular subjects of entrepreneurial activity) and meso-levels (particular economic sectors of the country).

4. DISCUSSION

Problems of fighting against crises at different levels of economic systems functioning are one of the most urgent for scientists, public officials and entrepreneurs-

practitioners. The high importance of such a fight (of crisis management) within securing and increasing national economic systems resilience of post-Soviet Eastern European countries should be highlighted. At the same time, the fight against financial crises at enterprises (financial crisis management) of these countries is of key importance.

The evaluation of unprofitable enterprises' share in economies of post-Soviet Eastern European countries during two consequent crises and after their post-crisis renewal allows pointing at their drastically high share and the significant impact on national economic systems resilience of the countries chosen for the study. The three-year forecast described in the research proves formulated conclusions and indicates the necessity to eliminate the problem detected within productivity increase in fighting against financial crises at post-Soviet Eastern European enterprises.

The study conducted has also pointed to the necessity and importance of financial crisis management for economic entities located in post-Soviet Eastern European countries. Besides, the research has demonstrated its little modern impact on the resilience increase of national economic systems of these countries due to a set of problems on the development and implementation of such a type of management at indicated subjects of entrepreneurial activity.

Panel studies of key negative impact factors on business units in post-Soviet Eastern European countries have allowed to identify the predominance of problems in the internal environment for both profitable and unprofitable large, medium, and small enterprises.

The study has demonstrated that post-Soviet Eastern European countries require the development and implementation of a set of ways to increase the productivity of financial crisis management at enterprises within securing resilience of their national economic systems. In addition, they demand changes implementation at the macro- (a state and municipal authorities) and micro- levels (enterprises). At the same time, the research has demonstrated the necessity to emphasize innovations, the quality increase of information provision of financial crisis management processes and the development of effective methodologies and models for diagnosing bankruptcy probability of subjects of entrepreneurial activity.

Taking into consideration the data stated above, the authors claim that the objective of the study indicated

at the beginning of the research has been reached. The key value of the article is a developed set of ways to increase the resilience of financial crisis management at enterprises of post-Soviet Eastern European countries where the attempt to connect it with securing the resilience increase of national economic systems of the countries chosen for the study has been done. In this regard, the research has outlined some restrictions in the usage of the results obtained in this article, namely: the necessity to develop an effective methodology for diagnostics of enterprises' financial status, in particular those which are on the precipice of bankruptcy; the necessity in developing evaluation models of bankruptcy probability appropriate for the modern terms of financial and economic activity conduction by enterprises located in post-Soviet Eastern European countries. They also should address the quantitative and qualitative aspects of their operation in markets. At the same time, formulated restrictions do not reduce the scientific and practical value of the article and mainly characterize perspectives of further scientific research.

5. CONCLUSION

Financial crisis management at the level of particular economic entities has a significant impact on the resilience of economic systems of post-Soviet Eastern European countries. Taking into account a big share of unprofitable enterprises and mostly negative dynamics of its changes, the productivity increase of such a type of management has a great potential for the resilience increase of post-Soviet Eastern European economies. The information provided above requires to conduct studies in this direction as well as to develop a set of measures to fight against the identified problems.

The research conducted has enabled authors to identify key negative impact factors on profitable and unprofitable enterprises of various sizes (large, medium, and small) in the countries located in the post-Soviet Eastern European environment. Besides, it has also revealed problems of financial crisis management implementation at such enterprises. In the context of securing the resilience increase of countries' national economic systems, a set of ways to increase the productivity of financial crisis management at the micro-level in the countries chosen for the study has been developed on this basis.

The practical implementation of suggestions and conclusions of the article should be regarded in the

context of their importance for the reduction of unprofitable enterprises' share in post-Soviet Eastern European economies and the increase of their resilience and competitiveness.

Based on and with the implementation of scientific results of the research conducted, perspectives of further studies are to develop effective and appropriate diagnostic methodologies and models for the bankruptcy probability evaluation of subjects of entrepreneurial activity from post-Soviet Eastern European countries.

REFERENCES

- Alpaslan, Can M., Sandy E. Green and Ian I. Mitroff. 2009. "Corporate governance in the context of crises: Towards a stakeholder theory of crisis management." *Journal of Contingencies and Crisis Management* 17: 38-49. <https://doi.org/10.1111/j.1468-5973.2009.00555.x>
- Batorski, Jarema. 2011. "Fragmentation of crisis management in an enterprise." *Serbian Journal of Management* 6: 283-6. <https://doi.org/10.5937/sjm1102283B>
- Bondarchuk, Mariia K., Oleksiy O. Druhov and Orysia P. Voloshyn. 2017. "Research on the problematics of anti-crisis innovations financing in business structures." *Financial and credit activity: problems of theory and practice* 23(2): 101-9. <https://doi.org/10.18371/fcaptive.v2i23.121394>
- Bundy, Jonathan and Michael D. Pfarrer. 2015. "A burden of responsibility: The role of social approval at the onset of a crisis." *Academy of Management Review* 40: 345-69. <https://doi.org/10.5465/amr.2013.0027>
- Bundy, Jonathan, Michael D. Pfarrer, Cole E. Short and W. Timothy Coombs. 2017. "Crises and Crisis Management: Integration, Interpretation, and Research Development." *Journal of Management* 43(6): 1661-92. <https://doi.org/10.1177/0149206316680030>
- Cherba, V. M., O. V. Khomutenko, O. A. Diegtiar and O. Y. Palant. 2019. "Financial and economic innovations as a tool for anti-crisis financial management at an enterprise." *Financial and credit activity: problems of theory and practice* 28(1): 245-55. <https://doi.org/10.18371/fcaptive.v1i28.161689>
- Cherep, A. V., V. Z. Bugaj and T. G. Shevchenko. 2015. "Diagnostics of the enterprise's financial status of the basis of 'weak signals'." *Journal of Zaporizhzhia National University, Economic sciences* 3(27): 25-32.
- Coombs, W. Timothy. 2012. *Ongoing Crisis Management: Planning, Managing and Responding*. 3rd ed. Thousands Oak: Sage.
- Federal State Statistic Service of the Russian Federation. (2019). Statistical information. Retrieved November 15, 2019 (<http://www.gks.ru>)
- Filipa, Andrei and Bernard Raffournier. 2014. "Financial Crisis And Earnings Management: The European Evidence." *The International Journal of Accounting* 49(4): 455-78. <https://doi.org/10.1016/j.intacc.2014.10.004>
- Gkillas, Konstantinos, Athanasios Tsagkanos and Dimitrios I. Vortelinos. 2019. "Integration and risk contagion in financial crises: Evidence from international stock markets." *Journal of Business Research* 104: 350-65. <https://doi.org/10.1016/j.jbusres.2019.07.031>
- Glukhova, Dariia V. 2011. "The system of financial crisis management of economic entities." *The Journal of Volga Region State University of Service. "Economics"* 3(17): 109-13.

- Green, Duncan, Richard King and May Miller-Dawkins. 2010. *The Global Economic Crisis and Developing Countries*. Oxford International. Retrieved November 16, 2019 (<http://lib.icimod.org/record/14678/files/6355.pdf>)
- Gurtner, Bruno. 2010. "The financial and economic crisis and developing countries." *International Development Policy, Revue internationale de politique de développement* 1(1): 189-213. <https://doi.org/10.4000/poldev.144>
- Hart, Paul, Liesbet Heyse and Arjen Boin. 2001. "New trends in crisis management practice and crisis management research: Setting the agenda." *Journal of Contingencies and Crisis Management* 4(9): 181-8. <https://doi.org/10.1111/1468-5973.00168>
- Havrylyshyn, Oleh, Xiaofan Meng and Marian Tupy. 2016. "25 years of reforms in ex-Communist countries: fast and extensive reforms led to higher growth and more political freedom." *Cato Institute, Policy Analysis*, No. 795. Retrieved November 15, 2019 (<https://ssrn.com/abstract=2833941>)
- Kalinichenko, Antonina V., Yuliia V. Shmygol and Kostiantyn D. Kostoglod. 2010. "Forecasting with the help of regression function." *The Journal of Kharkiv Petro Vasylenko National Technical University of Agriculture* 104: 10-16.
- Lalonde, Carole. 2007. "Crisis management and organizational development: Towards the conception of a learning model in crisis management." *Organization Development Journal* 1(25): 507-17.
- Li, Zhigang and Hongqi Chen. 2015. *Strategy of Enterprise Crisis Management in the Information Age*. Pp. 720-2 in *Proceedings of the 2015 3rd International Conference on Management Science, Education Technology, Arts, Social Science and Economics*. Qingdao, China. <https://doi.org/10.2991/msetasse-15.2015.159>
- Marchak, Daria, Mykola Magkiy and Oleksandr Yaroshchuk. 2016. *Bad decisions: how to build the poorest country in Europe*. VoxUkraine. Retrieved November 17, 2019 (https://voxukraine.org/longreads/poor-country/index_en.html)
- Masharsky, Alexander, Galyna Azarenkova, Kateryna Oryekhova and Sergii Yavorsky. 2018. "Anti-crisis financial management on energy enterprises as a precondition of innovative conversion of the energy industry: case of Ukraine." *Marketing and Management of Innovations* 3: 345-354. <https://doi.org/10.21272/mmi.2018.3-31>
- National Bureau of Statistics of the Republic of Moldova. 2019. *Statistical information*. Retrieved November 17, 2019 (<http://www.statistica.md/index.php?!=ru>)
- National Statistical Committee of the Republic of Belarus. 2019. *Statistical information*. Retrieved November 17, 2019 (<http://www.belstat.gov.by>)
- Peng, Q. and X. Wang. 2017. *Analysis on the Enterprise Crisis Management in the Internet Era*. Pp. 440-4 in *Proceedings of the 3rd International Conference on Social Science and Management (ICSSM 2017)*, April 8-9, 2017, Shaani, China.
- Pysmenna, Tetiana. 2018. "Anti-crisis financial management practice in conditions of domestic enterprises unprofitable economic activity." *Scientific Notes of the National University of Ostroh Academy, "Economics"* 9(37): 152-6. [https://doi.org/10.25264/2311-5149-2018-9\(37\)-152-156](https://doi.org/10.25264/2311-5149-2018-9(37)-152-156)
- Sahin, Bahadir, Naim Kapucu and Ali Unlu. 2008. "Perspectives on Crisis Management in European Union Countries: United Kingdom, Spain and Germany." *European Journal of Economic and Political Studies* 1: 19-45.
- Sapriel, Caroline. 2003. "Effective Crisis Management: Tools and Best Practice for the New Millennium." *Journal of Communication Management* 7(4): 348-55. <https://doi.org/10.1108/13632540310807485>
- Shpilina, Daria Yu. And Natalia V. Rodionova. 2014. "The Features of the Crisis Financial Management at the Company." *Economics and innovations management* 2: 13-8.
- Simola, Sheldene. 2014. "Teaching corporate crisis management through business ethics education." *European Journal of Training and Development* 38(5): 485-503. <https://doi.org/10.1108/EJTD-05-2013-0055>
- Smith, Adrian and Adam Swain. 2010. "The Global Economic Crisis, Eastern Europe, and the Former Soviet Union: Models of Development and the Contradictions of Internationalization." *Eurasian Geography and Economics* 51(1): 1-34. <https://doi.org/10.2747/1539-7216.51.1.1>
- Šontaitė-Petkevičienė, Miglė. 2014. "Crisis Management to Avoid Damage for Corporate Reputation: The Case of Retail Chain Crisis in the Baltic Countries." *Procedia – Social and Behavioral Sciences* 156: 452-7. <https://doi.org/10.1016/j.sbspro.2014.11.220>
- State Statistics Service of Ukraine. (2019). *Statistical Information*. Retrieved November 17, 2019 (<http://www.ukrstat.gov.ua>)
- Zamoum, Khaled and Tevhide Serra Gorpe. 2018. "Crisis Management: A Historical and Conceptual Approach for a Better Understanding of Today's Crises." Pp. 203-217 in *Crisis Management-Theory and Practice*, edited by K. Holla, M. Titko, and J. Ristvej. London: IntechOpen. <https://doi.org/10.5772/intechopen.76198>

Received on 10-01-2020

Accepted on 15-02-2020

Published on 02-03-2020

DOI: <https://doi.org/10.6000/1929-7092.2020.09.16>

© 2020 Khatser and Perehuda; Licensee Lifescience Global.

This is an open access article licensed under the terms of the Creative Commons Attribution Non-Commercial License (<http://creativecommons.org/licenses/by-nc/3.0/>) which permits unrestricted, non-commercial use, distribution and reproduction in any medium, provided the work is properly cited.