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**IMPROVING THE MODEL OF THE ENTERPRISE CRISIS
MANAGEMENT**

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Abstract

The paper evaluates the process and contradictions of the enterprise crisis management in a progressive region relying upon the experience of the Republic of Tatarstan. Despite the strengths of the institutional environment of the progressive region providing auxiliary facilities for regional enterprises, both in the external and internal environment of the enterprise, there exist certain threats reducing the efficiency of these enterprises. Subsequently, a number of recommendations have been developed in order to eliminate the revealed contradictions of crisis management and improve the model of crisis management of an enterprise in the context of institutional transformations in the region. In order to diagnose the management quality of the region where the enterprise operates and consider the opportunities and threats to the institutional environment of the region it is proposed to carry out high-quality detailed SWOT analysis; a new model of crisis management is to include a methodology for studying informal relationships with employees and counterparties of an enterprise, methods of provocative crisis management designed for increasing the effectiveness of preventive management, a system of self-development and continuous improvement of the company personnel in a progressive region, selecting and training of an anti-crisis team to increase the enterprise efficiency and performance; various plans of crisis management with performers and intermediate indicators of efficiency and technology for solving crisis management problems.

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Keywords: Crisis management, progressive region, institutional environment, the Republic of Tatarstan.



1. Introduction

Crisis management of an enterprise is carried out in an institutional environment, the importance of which is constantly increasing in the era of modern economy. Taking into consideration a minor result of the state anti-crisis plans for 2015-2017 (Manushin, 2016; Manushin, 2017) the emphasis should be placed on some other opportunities. Thus, the institutional environment of the region where the enterprise operates and develops is of vital importance. A great number of foreign and Russian researchers investigated into the regional institutional environment and its connection with the efficiency of enterprise operation. J. Belás, V. Demjan, J. Habánik, M. Hudáková, & J. Sipko firmly believe that countries creating more favorable conditions for doing business have a higher standard of living for the population (Belás, Demjan, Habánik, Hudáková, & Sipko, 2015). M. Fromhold-Eisebith puts forward for consideration overlapping of corporate and regional sustainability concepts (Fromhold-Eisebith, 2015). Y. B. Kraja, E. Osmani argue that the external environment has a greater impact on the success of the enterprise than the internal one (Kraja & Osmani, 2015). A. Nair, E. Rustambekov, M. McShane & S. Fainshmidt (Nair, Rustambekov, McShane, & Fainshmidt, 2014) carried out research on the adaptation of enterprises to the changing conditions of their external environment. The interaction of the enterprise crisis management effectiveness and the state of the environment was highlighted by J. A. Parnell (Parnell, 2015). The influence of the external environment on the performance of the enterprise was investigated by T. Suryana, I. Sudirman & E. Rusliati (Suryana, Sudirman, & Rusliati, 2017). H. Watson, RL Finn, K. Wadhwa support the idea that awareness of the external environment on the part of the management enhances the anti-crisis sustainability of an enterprise and henceforth has a positive effect on society as a whole (Watson, Finn, & Wadhwa, 2017). M. Dorosh, I. Baraniuk, D. Itchenko propose a model of interaction between the enterprise anti-crisis strategy and the regional development strategy which will provide a synergistic effect while implementing anti-crisis projects (Dorosh, Baraniuk, & Itchenko, 2015).

Russian researchers Botkin & Grebenkin (2009), Kleyner (2015), Malikov & Grishin (2016), Matveyev & Mazur (2016), Gordeyev & Kocherov (2016), Zubarevich (2015) and others study the links between the institutional environment of the region and the activities of the enterprise. However, the above-mentioned investigations fail to pay due attention to the influence of the regional environment effectiveness on the process of crisis management. The importance of this study lies in the fact that the model of crisis management of an enterprise in a progressive region will differ significantly from crisis management of an enterprise in a depressed region. Taking into account the influence of the institutional environment of the region will increase the effectiveness of crisis management, since the development of an anti-crisis strategy will take into account all the opportunities provided to the company and consequently all the risks posed by the external environment. Accountability of management quality of the region where the company operates will enable the counterparties to take into account all the risks and opportunities while building relationships with the company.

2. Problem Statement

The issue of mutual influence of the performance of enterprises and the socio-economic situation of the region still requires a further detailed consideration. Diagnostics of the internal and external

environment at an enterprise is mainly limited to the analysis of the financial and economic situation of the enterprise and relations with contractors whereas successful functioning and adaptation to the institutional environment of the enterprise itself and the regional environment in general calls for a much thorough investigation. Meanwhile the efficiency of the enterprise itself affects the state of the regional environment which also requires additional research in this area. Creating favourable conditions for doing business and improving its performance will significantly contribute to the socio-economic development of the whole region.

This interinfluence of the enterprise effectiveness and the regional environment is to be checked in one of the Russian regions, for instance the Republic of Tatarstan. There has been the aggravation of the economic situation in Russia and the world community since 2014 arising from the introduction of bilateral sanctions. However, the situation in the Republic of Tatarstan is quite different, with the basic macroeconomic indicators showing a stable growth dynamic and exceeding the average figures for the Russian Federation.

3. Research Questions

The present research undertakes to solve the following issues:

- Is the crisis management of the enterprises operating in Tatarstan really effective?
- Is it possible to increase the efficiency of the regional environment through increasing the effectiveness of anti-crisis management of an enterprise?

4. Purpose of the Study

The aim of the undertaken research is to form an estimate to the process and contradictions of the enterprise crisis management in a progressive region and the impact of the effectiveness of crisis management on the effectiveness of the regional environment.

5. Research Methods

A Comprehensive scrutiny of the matter has become possible thorough the application of a number of methods such as abstract-logical, economic-statistical, economic-mathematical methods and an expert method, i.e. the method of questionnaire survey.

6. Findings

The Republic of Tatarstan belongs to one of the progressive regions of Russia and therefore the crisis management of enterprises in this region will have a greater arsenal of possibilities to overcome the crisis situation. Firstly, all effectively managed regions receive a lot of support from the federal centre and accordingly companies operating in this region can be better supported. Secondly, the high reputation of the region attracts other companies; as a result, their presence in one region gives birth to a synergistic effect which can be used in the anti-crisis management of the enterprise. Thirdly, the solvency of the population of the region allows increasing prices for products and services of the enterprise, increasing the sales of the enterprise as a result of using various means of anti-crisis marketing. Fourthly, a developed financial market makes it possible to attract various sources of financing for the activities of a

crisis enterprise and receive additional income through financial investments. Fifthly, sufficiently high wages of the region population make it possible to change the system of motivation of the crisis enterprise personnel, having the opportunity to reduce labor costs in case of need.

The process of crisis management along with the influence degree of progressive and depressive regional institutional environment substantially depends on the size of the enterprise. Therefore, it was required that enterprises of different sizes are selected to estimate the process of enterprise crisis management.

Overall, in the Republic of Tatarstan the amount of enterprises at the end of 2016 equals to 38817 (with individual entrepreneurs 126660), where 91.2% are micro enterprises; 7.1% represent small enterprises; 1.0% operate as medium enterprises and 0.8% as large enterprises (see Table 01).

Table 01. The number of enterprises in the Republic of Tatarstan for 2012 to 2016

Enterprises	2012	2013	2014	2015	2016	Growth rate for 2012 to 2016, %
Large enterprises	251	265	282	293	295	17,5
Medium-sized enterprises	288	304	331	365	372	29,2
Small enterprises	1 435	1 646	1 982	2 483	2 740	90,9
Micro-enterprises	18 071	21 532	25 871	31 230	35 410	96,0

Note: Source: compiled by the author on the data at the site <http://spark-interfax.ru/ru/statistics/region>.

The growth rate of enterprises clearly shows that small business in the Republic is developing at a highly rapid speed. This suggests the creation of favourable conditions for business and proves the fact that the Republic of Tatarstan is a progressive region. Since if the region suffers a crisis, the number of enterprises (especially small ones) is sure to decrease. Although there is a constant growth of enterprises throughout Tatarstan.

33 enterprises of the construction and engineering industry were subjected to a detailed analysis of the crisis management process involving 11 small, 11 medium and 11 large enterprises. Micro-enterprises were excluded from the study thorough the absence of the above-mentioned process of crisis management. If such an enterprise faces a crisis it will be liquidated. In this regard, the study involved companies with a staff of at least 50 people. The construction and engineering enterprises were chosen for the study since these industries are considered to be among the most important for the Republic.

Questionnaire survey questions were compiled in three main blocks of the crisis management process: preventive, reactive and rehabilitative crisis management. The structure of the questionnaire was carefully developed and pre-tested by a test questionnaire on several tests, the latter being not related to the field of crisis management. Afterwards the questionnaire was finalized and applied to a survey of economists, financial managers and business leaders.

Evaluation of the stages of the crisis management process at the enterprise was carried out with the aid of a 10-point scale: from 0 points in case of absence to 10 points in case of a full-scale presence of the crisis management process. Table 2 represents the results which are grouped separately into small (SE), medium (ME) and large (LE) enterprises. The points show the arithmetic mean value of all the surveyed enterprises.

Table 02. Evaluation of the crisis management process at enterprises in 2018

	The content of the crisis management process at an enterprise	Average score			
		SE	ME	LE	total
1	The process of crisis management at an enterprise is continuous	6,8	5,5	8,0	6,8
2	Methodology for recognizing, evaluating and forecasting problems of an enterprise	6,3	5,0	8,5	6,6
-	The financial position of the company is diagnosed	6,7	7,0	8,5	7,4
-	Environmental factors of the enterprise are diagnosed	7,3	4,8	7,7	6,6
-	The quality of the region where the enterprise operates is diagnosed	6,2	3,7	8,0	6,0
-	The relationship between the company and its counterparties is diagnosed	7,5	6,5	7,6	7,2
-	The factors of the internal institutional environment, informal relationships with employees and counterparties are diagnosed	5,2	4,6	6,9	5,6
3	State of the internal and external environment of the enterprise is projected	6,3	6,6	7,8	6,9
4	There is a methodology for recognizing, evaluating and forecasting the capabilities of an enterprise in the internal environment	7,5	4,6	8,5	6,9
5	There is a methodology for recognizing, evaluating and forecasting enterprise capabilities in the external environment	5,2	3,6	7,6	5,5
6	Based on the identified problems and opportunities “pilot” (urgent, low-cost) measures are applied to reduce these problems or to use these opportunities	4,7	6,6	7,7	6,3
-	There is on-going work to create conditions both within and outside the organization which will prevent or initially weaken the crisis	5,5	6,0	7,4	6,3
-	The system of self-development and continuous improvement of staff motivation	3,7	5,0	6,4	5,0
-	Provocative crisis management is carried out	0,5	2,1	2,7	1,8
7	All identified problems are ranked according to the severity of the consequences for the enterprise and the urgency of their elimination.	7,0	6,9	8,0	7,3
8	The company is currently in a state of apparent crisis.	1,8	2,3	2,7	6,8
9	The company has previously experienced crisis situations.	5,2	4,0	5,6	4,9
10	The company has an anti-crisis service (anti-crisis team).	3,3	2,1	6,8	4,1
11	During a crisis an enterprise develops a crisis management plan with executors and intermediate performance indicators.	4,8	5,0	8,2	6,0
12	A crisis situation determines the development of a technology to solve crisis management tasks.	5,5	3,9	8,7	6,0
13	The quality and quantity of available resources (material, financial, labor) is evaluated.	8,3	7,6	9,1	8,3
14	Contingency reserve is created.	6,3	7,5	7,2	7,0
15	The impact of the external environment is taken into account and relations with contractors and the public are established	6,5	6,3	7,8	6,9
16	Anti-crisis plans are being adjusted and improved.	5,8	5,6	9,1	6,8
17	The company possesses a strategy.	6,7	5,9	9,6	7,4
18	The company's strategy is adjusted to reflect the experienced crisis situations.	4,3	5,9	8,4	6,2
19	Corporate unification is enhanced and CSR is increased with the aim to improve the resilience of the enterprise to future crises.	5,3	6,1	8,8	6,7
20	The company longs for a high image and wants to win the recognition of contractors and the public.	7,5	8,2	9,5	8,4

The average estimate of the crisis management process (excluding lines 8 and 9) was 6.2 points. According to the evaluation scale, the crisis management is missing (0 - 2 points); ineffective (2.1–4 points); not very effective (4.1 - 6 points); effective (6.1 - 8 points); highly effective (8.1 - 10 points), where 6.2 points shows that the process of crisis management at enterprises is effective but very close to the lower boundary.

Table 02 serves a good proof for a continuous process of crisis management in small, medium-sized and large enterprises (6.8 points). Moreover, the crisis management process is better carried out in small enterprises than in medium-sized ones (for most indicators, the scores for small enterprises exceed the scores of medium-sized enterprises). This may be due to different perceptions of the crisis situation by enterprises with different market shares.

For small companies, crisis management will be more continuous due to the fact that they may go bankrupt after several unsuccessful decisions of a manager. Thus, such companies undergo crisis throughout their entire life cycle. They do not have such situations when they do not see opportunities and options for development and improvement of current activities. But they are not always realized due to a small amount of available funds and a busy schedule of the head of a small company. In this regard we can indicate two relative periods applicable to these firms, i.e. a slow development scheme and an accelerated scheme. Moreover, there is a subjective perception of a crisis degree by each manager and anti-crisis actions are actually measures requiring super efforts on the part of the manager (ex. time or psycho-emotional costs, mastering his new competence, i.e. personal development of the director and development of the company are closely interacted). The difference between these two periods is also subjective, so for some people the usual operation mode of a competitor can be taken as an anti-crisis management scheme. In fact, small enterprises are almost always in a state of crisis management.

For medium-sized companies crisis management will be either periodic or continuous. It depends on the management style and control scheme. For example, in case if there is an accepted deviation management scheme, the employees cope with the current problems themselves and the general director engages into the process just in critical situations. In this case the periods of the company's work with full devotion of all its managers and employees can be determined as anti-crisis work. In other words, with such a management scheme, crisis management will be periodic. If the management style remains authoritarian and the CEO continues to have a hand in everything, then the crisis management will be relatively continuous as in small companies. According to the survey results, one can see (5.5 points) that in the surveyed medium-sized enterprises such management styles can amount to 50 to 50.

Large companies are usually managed by a group of people and it enables to reduce agency costs and take other measures to cut costs from bureaucracy, inconsistency in the development of individual elements of the company, protection from opportunism etc.

At the same time, all development options have their own problems resulting in crisis and therefore requiring their own anti-crisis measures. According to the results of the survey (8 points), in the majority of the surveyed large enterprises the process of crisis management is continuous and there is a permanent anti-crisis service (6.8 points).

Currently, very few enterprises are facing an evident crisis. The points for the question “The enterprise has previously experienced crisis situations” ranged from 4 to 5.6 (4.9 average score). At the

same time, many other indicators are noticeably higher than 5, i.e. the excess means that these measures are implemented to combat the hidden crisis.

The bottlenecks of the crisis management process at enterprises (less than 6.1 points) are sure to be diagnosing the quality of the region where the enterprise operates (6 points), as well as informal relationships with employees and contractors (5.6 points).

Most of the enterprises do not appreciate the opportunities being the enterprise external environment strengths. The existing methodology for recognizing, evaluating, and forecasting enterprise capabilities in the external environment was estimated by respondents at 5.5 points.

The state of human capital of an enterprise is becoming increasingly important in modern economic conditions. Therefore, an ineffective system of self-development and continuous increase of the personnel motivation (5 points) may also worsen the crisis at the enterprise.

Opportunities of provocative crisis management are rarely used even in large enterprises (average score 1.8). Opportunities to increase the anti-crisis enterprise sustainability owing to constantly operating anti-crisis team are also neglected, especially in small and medium-sized enterprises (average score 4.1).

The development of an anti-crisis management plan serving the basis for overcoming the crisis appeared to be an ineffective stage of the anti-crisis process (6 points).

All this indicates the need to develop measures improving the process of the enterprise crisis management with regard to institutional changes in the region.

The national significance of the research implies application of all the opportunities to improve the crisis management quality provided for by accounting and using internal and external institutional factors of the enterprise with the aim to raise the resilience of the enterprise to crisis, improve its performance and accordingly increase the level of the regional economy development.

To evaluate the impact of enterprise efficiency on the effectiveness of the regional environment, the average profitability of enterprises in a certain region was compared with the level of GRP (gross regional product) of these regions in 2016.

In order to build an econometric model, we take the GRP of the regions (y) as the explained variable, the average profitability of enterprises by region (x) as an explanatory variable calculated on the basis of data from the Federal State Statistics Service (<http://www.gks.ru/>) for 2016 (overall, 85 regions underwent a detailed consideration).

The use of an econometric model built in Excel showed that there is a connection between the average financial result of a separate enterprise and the gross regional product, although it is very weak (the determination coefficient is 0.09), but even such a link confirms its presence. Its validity is confirmed by a number of verification coefficients with acceptable or good values. Thus, the probability of the null hypothesis is 0.005; t-statistic value is 2.57; F-statistics is equal to 3.955.

As a result, the regression model for the dependence of the regional GRP on the average financial result of an enterprise has the following form:

$$y = 371.211598 + 249.5103519x$$

Owing to the positive relationship (this is indicated by the plus sign in the formula) we can assume that the GRP in the region will increase with an increase in the financial performance of an enterprise in

this region. Thus, it is proved that enhancing the performance of enterprises in the region will improve the socio-economic efficiency of the whole region.

7. Conclusion

Thus, the evaluation of the process and contradictions of the crisis management at the enterprises of the Republic of Tatarstan proves that despite the strengths of the institutional environment of the progressive region providing auxiliary facilities for regional enterprises, both in the external and internal environment of the enterprise, companies come across certain risks reducing their efficiency. In order to improve the model of crisis management of an enterprise in the context of institutional transformations in the region it is offered to carry out a high-quality detailed SWOT analysis of the management quality in the region; develop a methodology for studying informal relationships with employees and contractors of the enterprise; use the methods of provocative crisis management to increase the effectiveness of preventive management; think over the system of self-development and continuous improvement of the personnel motivation; select and prepare an anti-crisis team in order to improve the efficiency and effectiveness of the enterprise; to develop various plans of crisis management with performers and intermediate indicators of efficiency and technology for solving problems of crisis management.

The implementation of the author's recommendations will significantly improve the process of enterprise crisis management and thereby increase the financial performance of the enterprise itself. And the constructed model for the dependence of the gross regional product on the financial result of enterprises in the region vividly shows the possibility to improve the socio-economic efficiency of the whole region.

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