THE FORMATION OF ORGANIZATION FLEXIBLE DEVELOPMENT STRATEGY

Andrei A. Datsyk, Kazan Federal University Alla I. Podgornaya, Kazan Federal University Svetlana I.Grudina, Kazan Federal University Sofya G. Avdonina, Kazan Federal University

ABSTRACT

Many problems faced by modern Russian organizations, may be reduced to the largest ones, one of them is the ability to respond flexibly and cost-effectively respond to market conditions. The need for a flexible strategy development is primarily associated with ongoing significant changes in terms of macroeconomic indicators, the state regulation systems for market processes, financial market conditions and the associated uncertainty.

The purpose of this article is to analyze the possibility of a strategy formation for the flexible development of Russian organizations.

During the study performance the statistical methods, the methods of strategic management, economic analysis of organization activity, as well as such scientific methods as analysis and synthesis, the systematic approach to the study of the external and the internal environment, socio-economic phenomena and processes as the set of tools.

The study revealed the need for organization management strategy change, the method of organization flexibility evaluation was developed, and the offer of flexible development strategy implementation strategy was substantiated through the development of fractal organizations.

The methods of an organization flexibility evaluation and separately formulated conclusions can be used during the development and the implementation of a flexible development strategy for large and small organizations, state agencies and non-governmental organizations.

Key Words: Flexible Management, Development Strategy, Crisis Management, Fractal Organization, The Anti-Crisis Immunity

INTRODUCTION

The relevance of the work is conditioned by the need to develop crisis management technologies in order to overcome the problems of management within the conditions of uncertainty and systemic crisis associated with the establishment of a new stage of the market economy development. Considering the publication statistics about bankruptcy posts during 2014-2016, 6773 publications were published on April 2014, 6631 publications were published on April 2016 (Bankruptcy message statistics from the newspaper "Kommersant", date of the application April 2016). Despite the fact that a great attention is paid to strategic management nowadays, a number of relevant issues on the formation of anti-crisis potential of organizations remains, including the issues on the formation of the development strategy. A strategy selection problem is often underestimated, which leads

to the need for preventive measures. The purpose of this article is to analyze the possibilities of a flexible strategy development for Russian organizations.

Many problems faced by modern Russian organizations, may be reduced to the largest ones, one of them is the ability to respond to market conditions flexibly and cost-effectively. Moreover, the adjustment of development strategy is relevant not only for large but also for small companies, government agencies and non-governmental organizations. The need for a flexible strategy development is primarily associated with ongoing significant changes within macroeconomic indicators, the state regulation systems for market processes, financial market conditions and the associated uncertainty. However, changing market conditions bring a number of advantages for promptly adapting organizations. Their management is based, for example, on a flexible development strategy. In order to make all these advantages be used by an organization, it must be adapted to the conditions of these benefits obtaining. In order to solve this problem it is necessary to develop a common methodology for a strategy formation, which was based on the principle of the technical, financial and economic situation improvement provision. This strategy consists of a series of successive events with feedback which allows the adjustment of goals, objectives, and also the development of the resulting indicators concerning the economic condition of the entire organization.

METHODS

During the study performance the statistical methods, the methods of strategic management, economic analysis of organization activity, as well as such scientific methods as analysis and synthesis, the systematic approach to the study of the external and the internal environment, socio-economic phenomena and processes as the set of tools.

RESULTS

The study identified the stages of an organization flexible development strategy, the methods of an organization flexibility degree evaluation were developed, and the proposal of flexible development strategy is substantiated through the formation of fractal organization.

The first step towards the establishment of a flexible development strategy is the strategic analysis of the company. It includes a SWOT-analysis, scenario analysis, SNW-analysis, the analysis of financial ratios, the comparative financial analysis, an expert analysis, the comprehensive evaluation of an institution strategic financial position.

The next step is the formation and coordination of strategic objectives. The quantitative indicators of the economic complex condition and the implementation of measures for a new structure creation are developed during the third stage. It is necessary to introduce such a concept as "flexibility" to make a substantiated decision on quantitative indicators. Flexibility is the prerequisite to improve organization operation efficiency.

By flexibility we mean the process of a purposeful change of parameters, the structure and the properties of an organization in response to the changes within external and internal environment. The flexibility in economic context is the changes performed by an organization in order to adapt to new economic conditions and activity purposes (A. Podgornaya, S. Grudina, 2015, p. 1074). From an economic point of view, flexibility reflects the ability of an enterprise to the development of new quality products within the shortest possible period, within lower costs and within a new economic system.

The degree of flexibility may be determined by focusing on the following factors:

- 1. The relevance of a manufactured product;
- 2. The competitiveness of a product;
- 3. The adequacy of the scientific and technical base and the level of staff qualification;
- 4. Financial liquidity level

There is the issue of different readiness for the transition to a flexible development strategy of individual units for large organizations with several departments during the formation of a flexible development strategy.

The flexibility of a large organization is the ability of all units to receive a synergistic result for a certain period from the sale of products demanded by market, which provides a long-term development of the departments.

The degree of flexibility during the implementation of the strategy can be defined as follows:

Profit change ratio at strategy change (Pr_f):

Pr – the profit planned by management

 Pr_1 - the income from old products

 Pr_2 - new product income

$$Pr_f = \frac{Pr}{Pr_1} + Pr_2$$

The coefficient of the product amount of change during the development of Q_f :

Q - the quantity of product planned by management

 Q_1 - the amount of old products

 Q_2 - the amount of new products

$$Q_f = \frac{Q}{Q_1 + Q_2}$$

The ratio of own asset change (A_f) :

A- own assets of an organization

 A_1 - own assets of management

 A_2 - own assets of department

$$A_f = \frac{A}{A_1 + A_2}$$

Flexibility degree (F_1):

$$F_1 = \frac{Pr_f}{A_f + Q_f}$$

The component of large organization flexibility, the level of corporation, characterizing its ability for development will be defined as (F_b) :

 ${\it Pro}_i$ - an average profit for an update from the i-th large organization per 1 developed product

 \mathcal{C}_i – average expenses of i-th large organization for the update of one developed product included in the cost

 A_i – own assets of the i-th large organization

 q_i - the number of business units in an organization

 Q_i - a natural number of product in development of the i-th unit

$$F_b = \frac{\sum_{q_i}^{i=1} (Pro_i + C_i) \times Q_i}{\sum_{q_i}^{i=1} A_i}$$

Thus, the flexibility of a large organization may be represented as the total costs of its business units, accounting for the ruble of own assets. The assessment of an organization stability for modernization, involves the determination of flexibility characteristics concerning each element of a considered organization.

Table 1 shows the comparison of development strategy based on planned indicators and an organization flexible development.

Table 1
FUNDAMENTAL DIFFERENCES IN THE DEVELOPMENT STRATEGY INTERPRETATION

Comparison indicator	The development strategy as the system of planned indicators	Flexible development strategy as an integrated system
Accounting object	Costs, quantitative	All object data is needed to
	indicators	make right management decisions
Solution type	Operational solutions	The decisions of operational
		and strategic nature
Decision scale	Decisions concerning the	The decisions on organization
	management of individual	management as a whole and its structural
	organization units	divisions

One embodiment variant for a flexible implementation strategy is the creation of a fractal organization. Fractal is an object whose complexity does not depend on its size. It is always similar to itself; it retains the ability to reproduction. If deterministic systems are entirely dependent on external factors, the fractal is independent one (A.I. Podgornaya, S.I. Grudina, S.G. Avdonina, 2015, p. 519). Thus, a fractal organization is a highly adaptive organizational structure which can change the structure within the shortest periods of time.

In this context the introduction of a flexible development strategy can serve as anti-crisis potential for an organization. Under the anti-crisis potential we mean the possibility of an organization to adapt and the ability to predict the response to the random effects of economic factors, when even threatening accidents are turned into opportunities.

A fractal organization logically raises the issue of a rigid mechanistic structure maintaining for an organization or the development of an authoritarian model of management in the conditions of uncertainty due to its complexity, risk and instability in many components. There is an opinion that the rigid structures based on management formalization are stable ones. However, we know many examples of the post-Soviet organization destruction with complex traceable destruction origin and the rapid unavoidable crisis of the system.

The introduction of a flexible development strategy through the formation of fractal organizations is conditioned by many factors. And one of the important factors of such a potential is the solution of the problem concerning the formation of modern economic and "innovative" thinking. Fractal organizations are in constant development as systems. They are subject to positive changes, because the adaptation which accompanies an organization within the terms of uncertainty throughout the life cycle facilitates the disclosure of innovative and anti-crisis potentials.

Let's consider the stages of flexible development strategy implementation through a fractal organization formation.

Stages of new Additional Manageable processes organization system development cost/investment rate More investments is necessary for the preservation of An organization works Additional costs grow, but competitiveness former rate. The stable, changes tend to zero. they are not maximal. conditions for changes are developed. Costs are maximum and Start of changes, the targeted; the methods of pressure are The opposition of old and emergence of resistance in an new directives in an organization. used on several fronts organization. simultaneously. The development of a new Minimal additional costs, organization, the solution of current Irreversible changes. the management at the level of problems. subtle signals The support of new The emergence of a new Average-variable costs. parameters, change management. excluding force majeure cases. system.

Table 2
FRACTAL ORGANIZATION DEVELOPMENT

The next possible step for an organization is the experimental introduction of a fractal relation system. The development of a plan and an integrated system with specific results, a certain organizational structure, run and adjustment of a new structure with the minimum resource provision and the maximum ability of resource creation for new projects. In this structure one may single out three equal and equivalent control channels: a hierarchical, a horizontal, and an anti-crisis one. Each person occupies a certain hierarchical level in a fractal structure, and interacts with the others on an equal basis, i.e. a two-dimensional, hierarchical principle of development.

DISCUSSION

Interdisciplinary studies allow managers to get an answer to the question of crisis management causes by examining the mechanics and dynamics of destruction. Under the destruction we mean a complex process of internal restructuring with the break of internal relations under load (Adizes I.K., 2008, p. 43). In order to be able to predict destructions, to prevent such situations, to form an anti-crisis potential let's take a look at the study from new science and destruction mechanics perspective. Nowadays, there is no similar trend in the management of organizations, although these laws act on the organizational structures. Initially a linear destruction mechanics takes place. This is rather point and small destruction, which occurs without the external deformations of a system structure. Therefore, it is quite difficult to predict the scale of organization destruction with a rigid structure. Further research shows that such destructions are extremely rare. In most cases, destruction makes an influence on a structure appearance change, so-called ductile destruction or plastic deformation. It is observed in plastic structures. Deformation may split a structure into two parts, for example. Failure occurs in the process of nucleation, fusion and distribution of internal particles. In management it is comparable with the internal exhaustion of staff, which gradually loses senses, personal relevance and demonstrates care, not intending to leave an organization and consuming its resources. A ductile destruction is more visible and manageable, therefore it is less dangerous. In this case, there is no apparent need to change an organization management strategy. It is enough to take well-known crisis management measures. The "fractures" with a fractal branching structure were studied in the destruction mechanics and description and the form of linear destruction mechanics are not applicable here. In this case, the elements of the employee irrational behavior on the general background will be fractal here and thus the linear and nonlinear system destruction takes place. In our opinion, the nonlinear destruction mechanics describes the processes of destruction most adequately. It studied the properties and behavior of fractal structures also in combination with synergy, studying the processes of complex system evolution and self-organization. An interdisciplinary approach became possible due to synergy. The law of balance is observed in nature. Material destruction mechanisms are predetermined in the process of their development. These are the errors on the phase of an idea or an initial stage of the life cycle for an organization.

The magnitude and multiplicity of destruction and creation, their diversity for an organization makes the destruction identification difficult at the early stages or develops a special circle of managers (often from the circle of top managers), who are not involved in destruction. However, these levels are subject to destruction faster than others. They give rise to administrative errors leading an organization with a rigid structure to a complete destruction. Besides, rigid structures are loosened by chaotic turbulence-micro changes give rise to macro destructions bringing to the inability of survival within the terms of uncertainty and chaos. The innovative development factors of Russian enterprises were studied by such Russian scientists as Bagautdinova N.G., Galieva G.T., Safiullina A.M. and A.N. Melnik, (Bagautdinova N.G., Galieva G.T., Pakhmutov Ya.O., Pratchenko O.V., 2014, p.75; Safiullina, A.M., Odintsova, J.L., Zhilina, N.N.,Shamsutdinova, M.R., 2014, p. 197; Melnik A.N., Lukishina L.V., Sadriev A.R., 2015, p.40991) who substantiate the need of management change and the implementation of new strategies in their works. For example, D. Pink provides many examples when the achievements become possible when managers deviate from customary practices and implement new approaches to motivation, which correspond to the concepts of modern science. In Google

Company employees are allowed to be involved into personal projects one day a week, and at Best Buy employees are allowed to work wherever and however they want, as long as they reach their goals (Pink D. Drayf, 2012, p. 34). Practice showed that crisis may be overcome much easier by the organizations in which some anti-crisis activity was conducted (Filonovich S.R., 2010, p. 76). A flexible organization, which prevented or overcome a crisis has a great courage and responsiveness to the demands of a changing environment, thus winning the next competitive advantages. The competitive advantages of the organizations which implemented the strategy of flexible development are also in the correct choice of tactics, varying depending on the signals sent by an external environment.

CONCLUSIONS

The performed statistical study of Russian companies revealed the need for the changes in the management strategy and the introduction of a flexible development strategy. The developed evaluation method of an organization flexibility degree allows quantifying an organization response to changes, and subsequently developing the suitable flexible methods of management. The obtained values can be used to develop and implement a flexible development strategy for large and small organizations, government agencies and non-governmental organizations. One form of the flexible development strategy is the development of fractal organizations.

SUMMARY

Extrapolating trends let's distinguish two groups of organizations. The basic classification criterion is an organization ability to react to external environment changes. Let's describe inert, unchangeable and open systems. Inert systems include plants operating with a minimum of staff. Public organizations may be characterized as flexible ones, that is, the ones which evolve and change, producing a so-called anti-crisis immunity. The external and internal environments of flexible and mechanical organizations differ greatly. In our opinion, the main objective within these conditions is the timely introduction of a flexible development strategy. Often this implies the development potential of an organization, which does not guarantee the formation of an anti-crisis immunity which enhances crisis stability and mitigates the devastating effects of systemic and local crises. The synergistic effect of the innovation potential (provided by flexible development strategy) and the anti-crisis immunity provides an effective transition to the new level of an organization development, corresponding to the life cycle stage.

This article used the experience of previous researchers (Alla Podgornaya, Svetlana Grudina, Sofiya Avdonina, 2015, p. 275; Safina D.M., Podgornaya A.I., 2014, p. 187; Bovin A.A., Cherednikova L.E., Yakimovich V.A., 2009, p. 29; Kirshin I.A., Maleev M.V., Pachkova O.V., 2014, p. 320; Angappa Gunasekaran, Rameshwar Dubey, Surya Prakash Singh, 2016, p. 1), but the proposal to introduce a flexible development strategy through organizational change, moving to the creation of a fractal organization is an absolutely new one. The consequence of this proposal implementation will be the transition to a qualitatively new level of an organization development and the obtaining of synergy and economy effect from flexible interaction between employees during the process of operation.

Thus, the organizations implementing the flexible development strategy has all the prerequisites for the development and the strengthening of the anti-crisis immunity at the synchronization of its development various components.

ACKNOWLEDGEMENTS

The work is performed according to the Russian Government Program of Competitive Growth of Kazan Federal University.

REFERENCES

- A. Podgornaya, S. Grudina (2015). Self-Developing Systems in the Conditions of Anti-Recessionary Management. *Procedia Economics and Finance*, 23, 1074–1078
- A.I. Podgornaya, S.I. Grudina, S.G. Avdonina (2015). An Enterprise Flexible Development Model. *Procedia Economics and Finance*, 24, 519–522
- Adizes I.K. (2008). Change management. The means of change effective management in society, business and personal life SPb. Peter, 43.
- Alla Podgornaya, Svetlana Grudina, Sofiya Avdonina (2015). Anticrisis Potential of Innovative Enterprises (Russia and Germany Case Study). *The Proceedings of 6th World Conference on educational Sciences*. (Malta 2 June 2015), 191, 275 279.
- Angappa Gunasekaran, Rameshwar Dubey, Surya Prakash Singh (25 April 2016). Flexible Sustainable Supply Chain Network Design: Current Trends, Opportunities and Future. *Global Journal of Flexible Systems Management*, 1-4.
- Bagautdinova N.G., Galieva G.T., Pakhmutov Ya.O., Pratchenko O.V. (2014). Methods of Regulation of Processes of Innovation Business Development. *Mediterranean Journal of Social Sciences*, 5(12), 75-80.
- Bankruptcy message statistics from the newspaper "Kommersant" http://www.kartoteka.ru/b graphica/?tab=commonAll
- Bovin A.A., Cherednikova L.E., Yakimovich V.A. (2009). Innovation management in organizations. *M. Omega-L*, 29-37.
- Filonovich S.R. (2010). Knowledge management issues: origins and interdisciplinary nature. *Economic strategies* 5, 76-80
- Kirshin I.A., Maleev M.V., Pachkova O.V. (2014). Assessment of Impact of Domestic and External Demand Factors on Economic Growth in Russia on the Basis of Model of Multiple Regression Analysis. *International Conference on Applied Economics*, 14, 320–325.
- Melnik A.N., Lukishina L.V., Sadriev A.R. (2015). Formation Of The System Of Indicators To Assess The Impact Of Energy Efficiency On The Innovative Development Of The Enterprise. *International Journal of Applied Engineering Research*, 10(20), 40991-40997
- Pink D. Drayf. M. Alpina Publisher 2012, 34-47
- Safina D.M., Podgornaya A.I. ((2014). Mobbing as an organizational phenomenon impeding implementation of changes. *Mediterranean Journal of Social Sciences*, 5(18), 187-192.
- Safiullina, A.M., Odintsova, J.L., Zhilina, N.N., Shamsutdinova, M.R. (2014). The main participants of innovation climate development (on the example of the Russian federation). *Mediterranean Journal of Social Sciences*, 5(18 SPEC. ISSUE), 197-202.