

FETDE 2020
International Conference on Finance, Entrepreneurship and Technologies in
Digital Economy

ADMINISTRATIVE DECISIONS RATIONALE TO
ENVIRONMENTAL CONDITIONS CREATION FOR NORILSK
METALLURGICAL CLUSTER DEVELOPMENT

Oleg Bazhenov (a)*, Pavel Kormachenko (b)

*Corresponding author

(a) Ural Federal University named after the first President of Russia, B. N. Yeltsin, Ekaterinburg, Russia,
o.v.bazhenov@urfu.ru

(b) Ural Federal University named after the first President of Russia B. N. Yeltsin, Ekaterinburg, Russia,
o.v.bazhenov@urfu.ru

Abstract

The article discusses the procedure for using the author's methodological approach to strategic analysis and forecasting the activities of enterprises of the Arctic Norilsk Metallurgical Cluster for the implementation of management procedures aimed at substantiating administrative decisions to create targeted conditions for corporate development. For this, the enterprises of the Arctic Norilsk Metallurgical Cluster were presented as a complex system subject to the influence of external and internal factors, which allowed the authors to formulate a hypothesis about the direction of using strategic data for the formulation of management procedures. Throughout the research there were used methods of comparative analysis and generalisation of information obtained from various sources. As a result, a general conclusion was drawn about the possibility of using the author's system of strategic analysis and forecasting the activities of ANMC enterprises for the purpose of substantiating administrative procedures to adjust the influence of the external environment and the need to use information technologies to reduce labour costs when performing calculations at the analytical stage. The results of the presented work can be applied by regional executive authorities for the theoretical justification of the directions for creating targeted conditions for the development of enterprises of the Arctic Norilsk Metallurgical Cluster.

2357-1330 © 2021 Published by European Publisher.

Keywords: Strategic management, strategy, strategic analysis, activity forecasting, Arctic Norilsk Metallurgical Cluster, corporate governance Introduction



1. Introduction

Effective management of enterprises of the Arctic Norilsk Metallurgical Cluster (ANMC) is ensured by the implementation of timely, scientifically sound, targeted decisions based on properly prepared information. Uncertainty in the development of the external environment caused by macroeconomic, political and social factors, significant volatility of prices for non-ferrous metals - requires specialised services of ANMC enterprises to promptly provide data on the current state of the enterprise and its forecast position when implementing the target strategic development vector. This justifies the need to create a system of strategic analysis and forecasting of the activities of enterprises of the copper industry that is maximally adapted to corporate business conditions.

The data of strategic analysis is called upon to substantiate management decisions aimed, in particular, at levelling the negative integrated influence of the external and internal environment. In this regard, the strategic analysis is designed to form an information based on the state and dynamics of not only the corporate environment of the enterprise, but also the external environment. Such information has significant potential for strategic management, allowing you to make the best decisions for the company in an open business environment. At the same time, the theoretical and methodological aspects of the strategic analysis of ANMC enterprises should consider the specifics of the industry and the individual characteristics of the enterprises, both from the point of view considering the environmental impact levels and the selection of indicators and the regulatory framework for comparing their values.

Issues of strategic analysis and corporate governance are considered in sufficient detail in relevant scientific publications, as some aspects of strategic corporate governance were considered in (Dobrovič et al., 2018; Kalchenko et al., 2019; McKenny et al., 2018; Meimankulova & Umirzakov, 2018; Vieira et al., 2018). The application of the methods of analysis of the external economic environment was presented in (Doulos et al., 2018; Izmailova et al., 2018; Osmani et al., 2018; Ramanayake & Wijetunga, 2018; Wu & Wang, 2018;). Methodological aspects of the analysis of the internal environment and the direction of use of the results are presented in the following studies (Lan et al., 2019; Lončarski & Vidovič, 2019; Schaubroeck et al., 2019; Sinthupundaja et al., 2019; Wildberg & Möhring, 2019).

2. Research methods

The study used methods of comparative analysis and synthesis of information obtained from various sources.

3. Results and discussion

The procedure for implementing procedures aimed at formulating administrative decisions to create targeted conditions for the development of ANMC enterprises can be represented as follows (Figure 1).

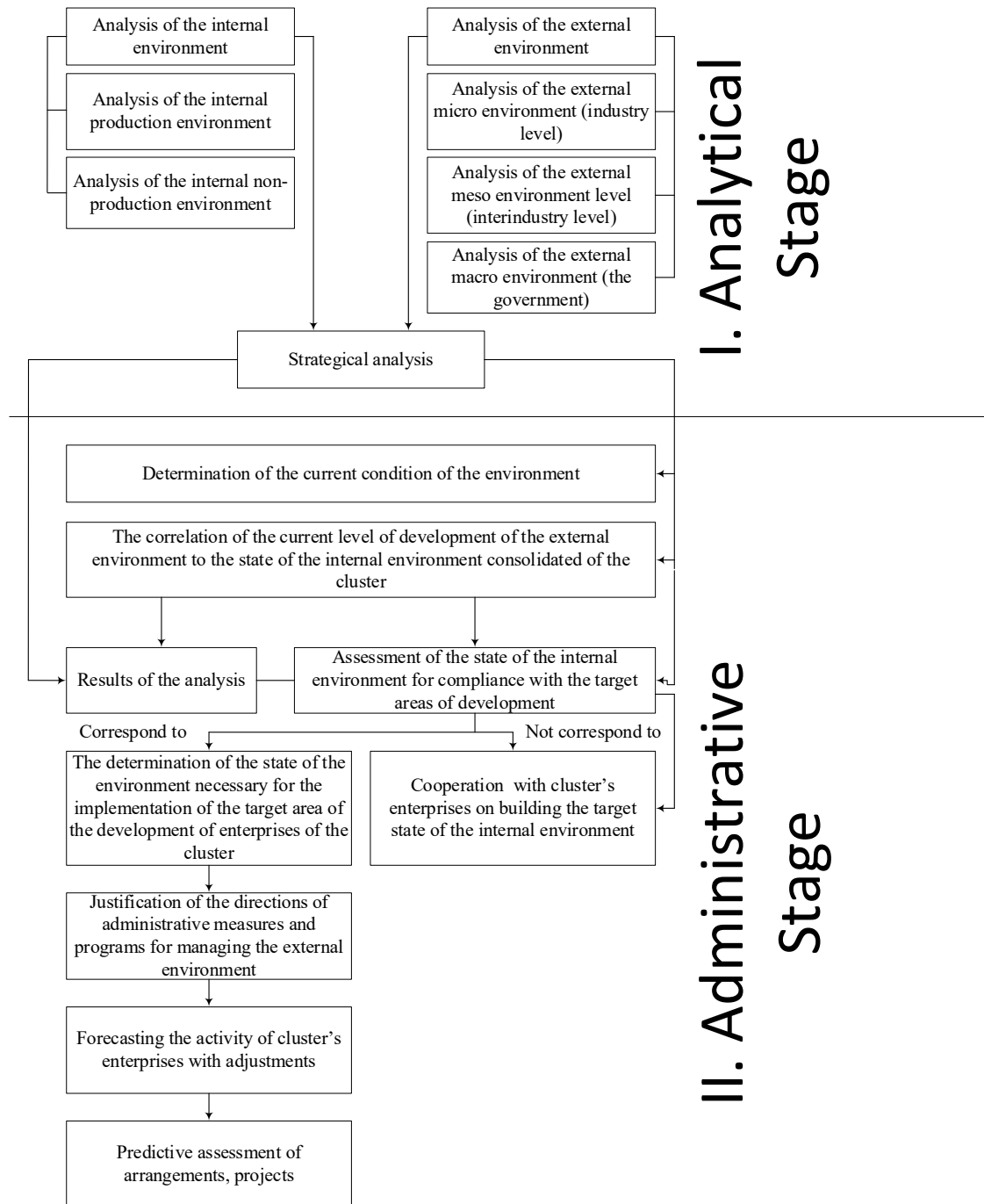


Figure 1. The procedure for implementing procedures aimed at substantiating administrative decisions to create targeted conditions for the development of ANMC enterprises

As can be seen from Figure 1, the first stage called "Analytical" is characterised by an analysis of the internal and external environment of ANMC enterprises. At the same time the analysis of the internal environment is carried out in two main directions: analysis of the internal production environment and analysis of the internal non-production environment. The analysis of the external environment is carried out in three main areas: analysis of the external micro environment (industry level), analysis of the external meso environment (interindustry level), analysis of the external macro environment (the government).

The final result of the analytical phase is the consolidation of data from the analysis of the external and internal environment — carrying out a strategic analysis, the purpose of which is to represent the place of ANMC enterprises in the external environment.

At the second stage of the “Administrative”, the current conditions of the external and internal environment are correlated in the main strategic areas and the basis for the development of the internal environment is assessed considering the current consolidated influence of external factors.

To determine the premises for the development of the internal environment we consider the following main options for the state of the external environment (Table 1).

Table 1. The Main Options for the State of the Environmental

№	The level of the environment		
	Micro environment	Meso environment	Macro environment
1	Positive	Positive	Positive
2	Positive	Positive	Negative
3	Positive	Negative	Negative
4	Negative	Positive	Positive
5	Negative	Negative	Positive
6	Negative	Negative	Negative
7	Positive	Negative	Positive
8	Negative	Positive	Negative

Then, there is an assessment of the state of the internal environment for compliance with the target areas of the development.

Target directions can be considered any that meet the current needs of the industry leaders (related industries, the state), in particular:

- Increase in investment in fixed assets;
- Anti-crisis direction;
- Maintaining the current state of the enterprise, etc. (Dobrovič et al., 2018)

If the condition of the external environment does not correspond to the target area, then the executive authorities responsible for managing the industry (related industries, the government) should work with the management of ANMC enterprises to build the business in the target direction. Such work should be accompanied by activities aimed at targeted support of enterprises by introducing additional financial and non-financial preferences.

If the condition of the internal environment corresponds to the target direction, then the executive authorities responsible for managing the industry (related industries, the government) determine the state of the external environment necessary to ensure the successful implementation of the target direction of development.

The criteria for the correlation of the condition of the internal environment to the target areas of development of the copper industry are as follows:

- If the comprehensive condition of the internal environment based on the rating score is characterised as the best, then it corresponds to the target area of the development associated with active investment and innovative activities aimed at increasing the scale of production;

- If the comprehensive condition of the internal environment based on the rating score is characterised as good, then it corresponds to the target area of the development associated with investment activities aimed at improving the quality of production;

- If the comprehensive condition of the internal environment based on the rating score is characterised as satisfactory, then it corresponds to the target direction of the development aimed at maintaining the current state of the enterprise;

- If the comprehensive condition of the internal environment based on the rating score is characterised as unsatisfactory, then it corresponds to the target direction of the development, ensuring the implementation of anti-crisis measures that increase the financial stability of the enterprise;

- If the comprehensive condition of the internal environment based on the rating score is characterised as unacceptably bad, then it corresponds to the target direction of the development, ensuring the implementation of anti-crisis measures ensuring the "survival" of the enterprise;

The next step of this phase is to validate the management activities, programs aimed at the management of the external environment. In this case, we will be guided by the following correlation of the state of the external environment and the target strategic direction (Table 2).

Table 2. Correlation of the Consolidated State of the Environment to the Strategic goals of the Development of Cluser's Enterprises

№	The name of the strategic direction	The condition of the environment*
1	Intensive development strategy	1
2	Extensive development strategy	7; 4
3	Inertial strategy	2; 5
4	Recessive strategy	6; 3; 8

Note: *Corresponds to the number represented in Table 1

According to the Table 2, the condition for the implementation of the intensive development of the enterprise ANMC is a positive state of the external micro environment, a positive state of the external meso environment and a positive state of the external macro environment.

The condition for the implementation of the extensive development of the enterprise of the copper industry can be either a positive state of the external micro environment; a negative state of the external meso environment; a positive state of the external micro environment or a negative state of the external micro environment; a positive state of the external meso environment; a positive state of the external macro environment.

The condition for the inertial development of the copper enterprises is either a positive state of the external micro environment; a positive state of the external meso environment and a positive state of the external macro environment or a negative state of the external micro environment; a negative state of the external meso environment; and a positive influence of the external macro environment.

The conditions for the implementation of the recessive development of the ANMC enterprise are either a negative state of the external micro environment; a negative state of the external meso environment; a negative state of the external micro environment; a negative state of the external meso environment; a negative state of the external meso environment; a negative state of the external micro environment or a

negative state of the external micro environment; a positive state of the external meso environment; negative state of the external macro environment.

In terms of the management decisions, it should be based on the following:

- If the conditions of the consolidated external environment contribute to the implementation of the strategy of extensive and intensive development, then the task of the administrative authorities of the external environment is to create conditions for maintaining the investment attractiveness of the territory and to provide other conditions necessary for the development of enterprises in the copper industry.

- If the conditions of the consolidated external environment contribute to the implementation of the recessive strategy, then the task of the administrative bodies of the external environment is to create conditions for the development of the internal (production and non-production) environment, ensuring stability of the balanced rating score at the previous level or its growth by one rating position.

- If the conditions of the consolidated external environment contribute to the implementation of the inertial strategy, then the task of the administrative bodies of the external environment is to create conditions for increasing the rating position of the consolidated internal environment through the implementation of internal reserves, without significant investment costs.

Management decisions: programs and activities - should be targeted and aimed at adjusting indicators included in a balanced system that evaluates the state of the environment at a particular level.

The next step in the implementation of the administrative phase is forecasting the activities of enterprises in the copper industry. At the same time, the state of the external environment is adjusted to the target level provided by the formulated administrative decisions.

Indicators of the internal environment are predicted using the method of situational modelling, considering measures and programs, the implementation of which directly depends on adjusting the state of the external environment (industry level, inter-industry level and state level).

The final procedure of the second stage is a predictive assessment of the formulated activities and programs.

According to the results of the analysis of the environment, the forecast values of the indicators are compared with the standards developed to reflect the target direction of development, and a conclusion is made on the appropriateness of the formulated administrative decisions. It is also necessary to compare the predicted value of strategic analysis data with similar values of the reporting period and the desired value of the target state of the enterprise in the external environment. Such analytical procedures are also designed to evaluate the effectiveness and feasibility of implementing management decisions formulated by industry management bodies (a number of related industries, the government).

Therefore, the main thesis obtained from the results of forecasting activities in the framework of the implementation of procedures aimed at formulating administrative decisions to create targeted conditions for the development of copper industry enterprises should be the conclusion about the feasibility of administrative measures. Moreover, due to the significant complexity of the implementation of settlement procedures, it is advisable to use adaptive tools for automation of calculations.

4. Conclusion

Thus, in this research, the procedure for using the author's methodological approach to strategic analysis and forecasting the activities of copper enterprises for the implementation of procedures aimed at substantiating administrative decisions to create targeted conditions for their development was considered. During the carriage of this research, the following results were obtained:

- presents the implementation of procedures aimed at formulating administrative decisions to create targeted conditions for the development of ANMC enterprises is presented;
- characterised the procedures the implementation of which will ensure the formulation of administrative decisions to create targeted conditions for the development of ANMC enterprises;
- a general conclusion was drawn on the possibility of using the author's system of strategic analysis and forecasting the activities of copper enterprises to justify administrative procedures for managing the environment.

Acknowledgement

The work was supported by Government of the Russian Federation, project № MK-914.2019.6.

References

- Dobrovič, J., Urbański, M., Gallo, P., Benková, E., & Čabinová, V. (2018). Balanced scorecard concept as a tool of strategic management and its usage in the construction industry. *Polish Journal of Management Studies*, 18(2), 59-72.
- Doulos, D., Katsaitis, O., & Zombanakis, G. (2018). Analysis of Asymmetric Responses of the External Sector to Economic Growth. *International Advances in Economic Research*, 24(3), 301-302.
- Izmailova, M. A., Khoroshavina, N. S., Rebrikova, N. V., Kolesnikova, O. V., & Shalnova, O. A. (2018). Major factors of achievement of quality of corporate management in the Russian medium-sized companies. *Quality – Access to Success*, 19(166), 72-79.
- Kalchenko, O., Evseeva, S., Plis, K., & Evseeva, O. (2019). Predictive analytics in goals' achievements of the strategy of economic and social development of St. Petersburg until 2030. *Proceedings of the 33rd International Business Information Management Association Conference, IBIMA 2019: Education Excellence and Innovation Management through Vision 2020*, 8789-8797.
- Lan, S., Yang, C., & Tseng, M.-L. (2019). Corporate sustainability on causal financial efficiency model in a hierarchical structure under uncertainties. *Journal of Cleaner Production*, 237, 117769.
- Lončarski, I., & Vidovič, L. (2019). Sorting out the financials: Making economic sense out of statistical factors. *Finance Research Letters*, 31, 110-118.
- McKenny, A. F., Short, J. C., & Ketchen, Jr. D. J. (2018). Strategic entrepreneurial orientation: Configurations, performance, and the effects of industry and time. *Strategic Entrepreneurship Journal*, 12(4), 504-521.
- Meimankulova, Z., & Umirzakov, S. (2018). Strategic management and development market of dairy products on the basis of increasing domestic and innovation production. *Journal of Applied Economic Sciences*, 13(7), 1984-2003.
- Osmani, M., Kambo, A., & Andoni, M. (2018). Dynamic interactions between major macroeconomic aggregates in Albania. A vector autoregression approach. *Journal of Applied Economic Sciences*, 13(8), 2196-2215.
- Ramanayake, S. S., & Wijetunga, C. S. (2018). Sri Lanka's Labour Migration Trends, Remittances and Economic Growth. *South Asia Research*, 38, 61-81.

- Schaubroeck, T., Petucco, C., & Benetto, E. (2019). Evaluate impact also per stakeholder in sustainability assessment, especially for financial analysis of circular economy initiatives. *Resources, Conservation and Recycling*, *150*, 104411.
- Sinthupundaja, J., Chiadamrong, N., & Kohda, Y. (2019). Internal capabilities, external cooperation and proactive CSR on financial performance. *Service Industries Journal*, *39*(15-16), 1099-1122.
- Vieira, E. P., Sausen, J. O., & Kelm, M. L. (2018). Strategic cost management: a model proposal for the machine industry and agricultural implements. *Custos e Agronegocio*, *14*, 332-360.
- Wildberg, J., & Möhring, B. (2019). Empirical analysis of the economic effect of tree species diversity based on the results of a forest accountancy data network. *Forest Policy and Economics*, *109*, 101982.
- Wu, Q., & Wang, W. (2018). Dynamic growth of technological innovation capability of manufacturing enterprises from the perspective of open innovation on evaluation. *5th International Conference on Industrial Economics System and Industrial Security Engineering, IEIS 2018*, 8598021.