

ESG-Oriented Model for Assessing the Quality of Company Management in a Sustainable Economy



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Abstract The subject of the research in this article is the current trends of sustainable economic development and their impact on the quality of company management. In particular, the authors emphasize the shift of priorities of economic strategies toward ESG guidelines. The analysis of one of the most popular tools in the current period for assessing the place of business companies in the economic space—ESG ratings—is carried out. The result of the study was the conclusion that, despite the progressiveness and relevance of this tool, the lack of a unified methodology for compiling ESG ratings requires the development of system tools that provide a complete, objective and internally consistent multi-criteria analysis of environmental, social and managerial factors. As such a tool, the authors proposed, substantiated and empirically verified a model of multi-criteria assessment of the quality of company management based on such a method as analytical hierarchy process. Criteria for ESG evaluation of alternatives have been developed. Recommendations on the use of model tools to develop directions for improving the quality of the management system in the context of ESG transformation of economic trends are formulated.

Keywords ESG-oriented model · ESG rating · Quality of company management · Economy of sustainable development · The method of analytic hierarchy process (AHP) · Business reputation

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1 Introduction

ESG standards have recently become part of economic and social theory and practice. If not so long ago the main criteria for assessing the quality of company management were commercial success and the effectiveness of a business strategy, today it is impossible to imagine this strategy itself without the triad “Environmental, social and corporate governance” (Barnett & Salomon, 2002; Gassmann et al., 2021).

ESG is a set of company performance standards that are taken into account, in particular, when deciding whether to invest in a company. These parameters ensure the management of sustainable development. Today, ESG has become a kind of “business philosophy”, according to which a company should be not only commercially successful, but also socially active, aimed not only at generating income, but also at meeting environmental, social and other needs of society (Clementino & Perkins, 2021; Cogan, 2006; European Banking Authority (EBA), 2021; Sciarelli et al., 2021).

ESG principles characterizing socio-ecological and managerial risks are becoming increasingly dominant when making multi-level corporate decisions (primarily investment ones). Confirmation of this thesis is the appearance of regulations that consolidate the experience of ESG rating as one of the requirements for the verification system of sustainable (including green) development projects in the Russian Federation (Decree of the Government of the Russian Federation No. 1587, 2021), as well as the following facts. The value of the assets managed by organizations implementing the UN Principles of responsible investment (UNPRI) amounted to 86 trillion US dollars in 2019; the global issue of green securities in 2020 amounted to more than 258 billion US dollars (Stern, 2020; United Nations, 2021).

With regard to ESG standards, such an intangible benefit of the organization as its business reputation comes to the fore. Business reputation is not only a powerful intangible asset of an organization, but also provides an opportunity to assess its position in the so-called “reputation space”, measured in three metrics—temporal, functional (actions) and its various aspects (Fig. 1) (Lazareva & Karaycheva, 2017).

The reputation space of an organization can be conditionally characterized by the situation in three zones—the so-called red zone (compliance with the norms of current legislation), the blue zone (corporate culture, ethics of doing business) and the green zone (socio-environmental projects, corporate management initiatives). A high level of business reputation of a business organization is achievable only if project initiatives are systematically implemented in all spatial zones.

The problem of ensuring the sustainability of economic trends based on ESG standards goes far beyond corporate policy, becoming a significant factor of national stability (Barnett & Salomon, 2002; Zhou et al., 2021). As a result, the number of ESG ratings of the development trajectories of corporations, regions, countries is growing, which allows assessing environmental, social risks, as well as the quality of management on a single scale, and making management decisions adequate to the current situation on this basis.

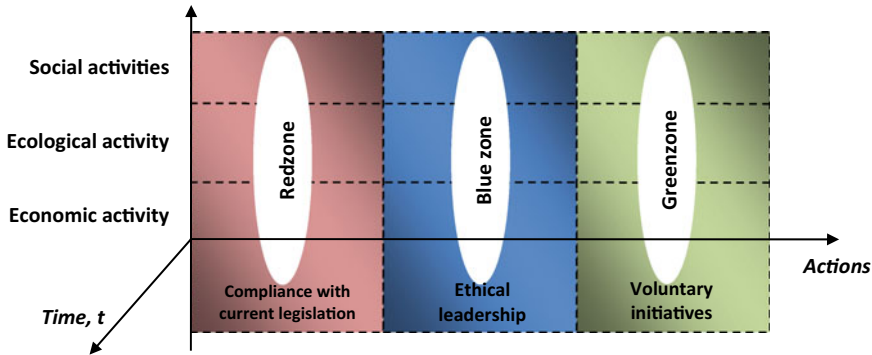


Fig. 1 Three-dimensional reputational space of an organization. *Source* Developed by the authors

Increasing the ESG transparency of companies by compiling ratings is associated with the development of this type of assessment by both foreign and Russian rating agencies. Currently, there are more than a hundred ESG agencies in the world, such a rating is often carried out on the basis of publicly available information, and not by the request of the company.

Nevertheless, the fragmentation of the indicator bases and evaluation methods used, the lack of a systematic approach to the design of ESG ratings significantly reduces the effectiveness of their application and, as a result, slows down the process of transition of economic agents to a sustainable development strategy. The lack of a unified methodology for compiling ESG ratings as a key tool for analyzing the degree of a company’s orientation toward sustainable socio-environmental and economic development hinders the introduction of ESG standards into the corporate governance system and requires increased research to substantiate the priority directions of its ESG-oriented transformation (Gassmann et al., 2021; Geissdoerfer et al., 2018; Jílková, 2021).

The reputation-spatial assessment model of an organization creates the foundation for the development of system tools that provide a complete, objective and internally consistent multi-criteria analysis of environmental, social and managerial factors.

2 Methodology

The methodological basis of the approach used by the authors was the systemic innovation-cyclical paradigm of sustainable economic development, according to which the achievement of a certain level of well-being by modern and future generations is consistently determined by the quality of the accumulated resource base, structurally formed by conserving resources along with the productive (artificially created) potential of anthropo-social and ecological capital (Lazareva & Karaycheva, 2017).

Within the framework of this methodology, a unified methodology that allows for a comprehensive assessment of the sustainability of the company’s development and the quality of its management should be based on a systematic analysis of indicators of the state of three areas—social, environmental and corporate management systems.

The advantages of the evaluation tools based on the analytic hierarchy process (AHP) in supporting the process of multi-criteria ESG assessment of the sustainability of company management include ensuring accuracy, consistency of the information base, reflection of hierarchical relationships and identification of the most significant factors: criteria and alternative solutions (Lazareva & Karaycheva, 2016; Lazareva et al., 2021).

The formalization of the task of system ESG evaluation of an organization as a multi-criteria hierarchical model is based on the principles of sustainable dynamic management and the following five-step procedure (Fig. 2):

1. Statement (type) of the problem characterizing the goals of decision-making. Solutions to problems in terms of goals are based on the axiom of “generating a supergoal”. For example, an assessment of business reputation or the quality (sustainability) of the organization’s management.
2. Formation of characteristics of the degree of achievement of the sub-goals of the established goal—criteria based on two basic principles—the principles of completeness and simplicity. According to the global model of sustainable development, the ESG assessment procedure should use indicators/criteria for the state of three subsystems—environmental, social and managerial.
3. Development of a set of rating scales (in expert or physical indicators).

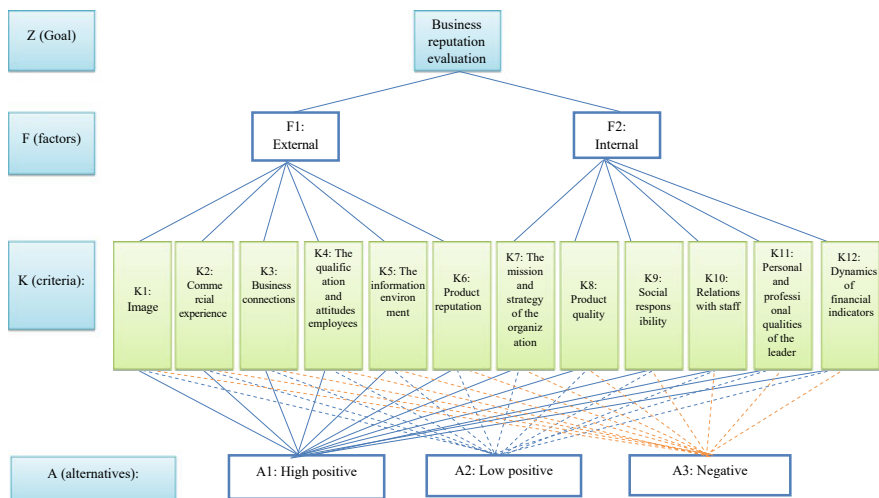


Fig. 2 MHI-hierarchy of business reputation assessment. *Source* Developed by the authors

4. Formation of ways to achieve the set goal—alternatives—satisfying certain requirements of assessments of the level of business reputation of the organization. The basic principles of forming alternatives are the quota rules (fixing the number of alternatives) and the rule of diversity of solutions.
5. Determination of ways to evaluate the results of solving the problem—the choice of the principle of comparison of estimates and determination of the most preferred of them—the decision rule. Two ways to evaluate the results are the assessment of the elasticity of the result depending on changes in factors and an absolute assessment based on the principle of “more–less”.

The apparatus of the AHP method makes it possible to assess the business reputation and the quality of company management according to a set of criteria. When performing a multi-criteria comparative assessment of several alternative assessments, the classical principles of the AHP method are used: the principles of identity and decomposition, discrimination and comparative judgments, as well as synthesis. The first principle makes it possible to structure the problem in the form of a hierarchy by defining criteria and forming a set of alternatives, the second—to investigate the structures of the decision-maker’s preferences by the paired comparison method, and the third—to determine the final priorities in accordance with the decision rule and the consistency of the hierarchy.

When applying the tools of the AHP method, evaluation criteria and factors were identified, a group of experts was formed, procedures for expert ESG assessment and calculation of integral evaluation indicators were implemented.

3 Results

The implementation of the ESG-evaluation procedure of an organization using the proposed tools of the AHP method, first of all, the identification (justification) of the hierarchical structure of interdependent endogenous and exogenous factors, as well as criteria for evaluating alternative solutions.

Endogenous factors include such G-factors-criteria as commercial experience (duration of operation, stability of the market position, relevance of the management structure, level and dynamics of profit), the image of the organization (stakeholders’ assessment of the business qualities of a legal entity, defining its social status), the level of qualification and attitude of its employees, as well as the reputation of products (demand, volumes and dynamics of sales).

Significant endogenous S-factors are business relationships (number of counterparties, suppliers, contractors, credit history of the organization) and the information environment of the company (presence in the media space, access to accounting documents).

Relevant exogenous G&E&S factors of business reputation are such as the quality (reputation) of products/services, social responsibility (environmental projects, social initiatives, sponsorship), innovative strategy of sustainable development of

the organization, personnel policy, corporate culture (climate), business qualities (personal reputation) of the head, dynamics of financial indicators.

Based on the results of the expert assessment of the level of business reputation, one of its three alternative integral assessments is formed—positive (high or low) or negative; measures are being developed to adjust the company’s management decision system.

Thus, the results of comparing the main factors-criteria in the assessment of the business reputation of Danone JSC using the AHP method showed the highest significance of the criteria “product reputation” (0.257), “corporate image” (0.206) and “business experience” (0.133) (Table 1).

In the identified “coordinates”, the A1 alternative (0.675) turned out to be the highest priority, which indicates a high positive level of the business reputation of Danone JSC (Table 2).

The advantage of the proposed evaluation procedure is the possibility of identifying reserves for improving the business reputation of the organization based on the analysis of private and generalizing estimates for each cluster and the introduction of the necessary control actions in the management system.

Table 1 Generalized expert assessments of the significance of factors-criteria of the organization’s business reputation

Generalized expert assessments of the significance	Factors-criteria
0.206	Corporate image (K1)
0.133	Business experience (K2)
0.101	Business relations (K3)
0.084	The skill level and attitude of employees (K4)
0.049	Information environment (K5)
0.257	Product reputation (K6)
0.023	Strategy for sustainable development (K7)
0.058	Quality of products (K8)
0.028	Social responsibility (K9)
0.016	Personnel relations (K10)
0.010	The personality of the leader (K11)
0.036	Dynamics of financial indicators (K12)

Source Developed by the authors

Table 2 Generalized dominance vector relative to the goal of the three alternative assessments of the organization's business reputation

Alternatives	Specific weight of the alternative in achieving the goal
A1—a high positive assessment of the organization's business reputation	0.675
A2—a low positive assessment of the organization's business reputation	0.217
A3—a negative assessment of the organization's business reputation	0.092

Source Developed by the authors

4 Conclusion

The increasing importance of ESG factors in the modern knowledge economy serves as a prerequisite for the gradual transformation of the company's management system. The formation of an effective ESG-oriented management model must necessarily be systemic in these conditions.

The novelty and advantage of the proposed AHP-model consists in substantiating the algorithm of the system analysis of the business reputation of the organization and a detailed qualitative and quantitative assessment of its achieved level.

Completeness, objectivity and inter-level consistency of assessments using the AHP method creates a fundamental basis for the formation of unified ESG ratings and assessment of the quality of management of modern companies.

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