



Research on Governance Modernization Evaluation of Large Power Grid Enterprises

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Abstract. To promote the modernization of the national governance system and governance capacity, it is necessary to continuously improve the corporate governance capacity of state-owned enterprises. In order to better serve and support the modernization of national governance and improve the modernization level of corporate governance system and governance capacity, it needs to use a scientific and reasonable indicator system to evaluate the current situation and deficiencies of corporate governance modernization. This research analyzes the connotation of corporate governance modernization firstly, and then builds an evaluation index system for corporate governance modernization. Finally, taking the large power grid enterprise as an example, it evaluates the current status of corporate governance modernization and rises relevant suggestions.

Keywords: governance modernization · corporate governance · evaluation index

1 Introduction

Corporate governance refers to the organizational structure arrangement and the relationship of balances formed among the enterprise owners, the board of directors and managers [1]. The goal is to realize the effective management and control of the enterprise, and to avoid the loss from the owner's interests.

Broadly speaking, corporate governance includes the arrangement of various responsibilities and rights of the enterprise to promote the coordinated operation and effective balances of the enterprise. It refers to the coordination of the company and all interests through a set of formal or informal, internal or external systems or mechanisms. In order to ensure the rationality and fairness of enterprise decision-making, the goal is to ensure that the interests of all stakeholders are maximized.

Regarding the connotation and path of the modernization of the corporate governance system and governance capacity of state-owned enterprises, experts and scholars generally believe that it is necessary to combine adherence to the leadership of Communist Party of China (CPC) with the improvement of enterprise management, and take the road of modernization of state-owned enterprise governance of socialism with Chinese characteristics [2].

2 Dimensional Design of Corporate Governance Modernization Index System

This research divides corporate governance modernization into two dimensions: internal and external.

2.1 Internal Dimensions

For state-owned enterprises, internally, they mainly undertake the requirements of the modernization of the national governance system, and focus on the process of continuously improving various systems and optimizing internal governance within the company.

The first is to uphold the overall leadership of CPC [3, 4]. It is necessary to resolutely safeguard the authority of the party, fully implement the system of “do not forget the original intention and keep in mind the mission”, and comprehensively govern the party strictly; and promote the party organization to play a institutionalized and reified role.

The second is to adhere to the rule of law. It is necessary to operate in compliance with laws and regulations, deepen the construction of enterprises under the rule of law, take the lead in abiding by the law, learn and use the law, and improve the ability to use the rule of law thinking and method to deepen reform, promote development, resolve conflicts, maintain stability, and deal with risks.

The third is to persist in comprehensively deepening reforms. It is necessary to vigorously strengthen market awareness and market thinking, actively adapt to the new situation and requirements of the reform of state-owned assets and state-owned enterprises and the reform of the power system, improve the market-oriented operation mechanism, strengthen, optimize and expand state-owned capital, and continue to enhance corporate vitality and market competitiveness.

The fourth is to improve the modern enterprise system of state-owned enterprises with Chinese characteristics. It is necessary to continuously improve the modern corporate governance structure, promote the organic integration of party leadership and corporate governance, and promote scientific decision-making; improve the market and operating mechanisms, further promote the optimization of group management and control, and stimulate the vitality and innovation of the grassroots.

2.2 External Dimensions

Externally, for state-owned enterprises, they mainly undertake the requirements of the modernization of national governance capabilities, focusing on current key tasks of the national governance modernization, the effectiveness of actively providing service support for major deployments by the party and the state [5].

The first is to serve the construction of a modern economic system. It is necessary to improve the quality and efficiency of its own development, and at the same time help optimize the business environment, and actively promote the coordinated development and transformation and upgrading of the industrial chain.

The second is to promote the construction of a clean, low-carbon, safe and efficient energy system. It is necessary to ensure national energy security, promote the green transformation of energy, and promote the improvement of energy utilization efficiency.

The third is to serve the protection and improvement of people's livelihood. It is necessary to provide modern power supply services, promote the equalization of urban and rural regional services, and complete urgent and difficult tasks such as emergency rescue and disaster relief.

The fourth is to serve government governance. It is necessary to give full play to data advantages, network advantages and supporting roles, support government decision-making through power big data, optimize social grassroots governance, and support the establishment, revision, abolition and interpretation of important national laws and regulations, and the formulation and revision of important plans through expert teams such as laws and planning.

3 Weight Setting of Corporate Governance Modernization Evaluation

In the corporate governance modernization index system, the internal dimension focuses on the company's own party building, rule of law, corporate governance, and deepening reforms, and the external dimension focuses on the company's services to the economy, energy, people's livelihood, and government governance. The work on the internal dimension, which is the basis for corporate governance modernization, is set at 40%. The work on the external dimension is a direct reflection of the modernization of corporate governance and is set to 60%.

In terms of external dimensions, this research invites more than 10 senior experts from key internal departments of enterprises, governments and universities to design the index weights of external dimensions. Through scoring, the weights are designed as follows: 25% for the construction of a modern economic system; 30% for promoting the construction of a clean, low-carbon, safe and efficient energy system; 30% for people's livelihood security and improvement; 15% for government governance.

In terms of internal dimensions, it undertakes the requirements of the modernization of national governance, and highlights the company's four aspects: serving and supporting a strong and powerful party's overall leadership system, serving and supporting the socialist legal system with Chinese characteristics, improving the modern state-owned enterprise system with Chinese characteristics, and comprehensively deepening reforms. All four dimensions are very important, so equal weights should be set.

4 Evaluation Results and Analysis

Based on the considerations above, the final design of the weight of the corporate governance modernization evaluation index system is shown in Table 1.

Table 1. Design of weights of evaluation indicators for corporate governance modernization [self-painted]

Dimension	Index
Serving the construction of a modern economic system (12%)	Revenue (1%)
	Profit (2%)
	Received a global ranking for electricity (4%)
	Stimulating investment amount (2%)
	Cumulative reduction of social energy costs (2%)
	Market-based transaction electricity (1%)
Promote the construction of a clean, low-carbon, safe and efficient energy system (20%)	Grid-connected renewable energy installed capacity (5%)
	Electricity accounts for the proportion of final energy consumption (5%)
	Grid security level (4%)
	Grid-connected power generation capacity (2%)
	UHV annual average utilization hours (2%)
	Comprehensive line loss rate (2%)
Serving people's livelihood guarantee and improvement (20%)	Power supply reliability rate (5%)
	Voltage pass rate (5%)
	Customer Satisfaction (5%)
	Rural household per capita distribution capacity (1%)
	Photovoltaic poverty alleviation grid-connected electricity consumption (1%)
	Completion of emergency rescue tasks (3%)
Service Governance (8%)	Completion of power security tasks for major political activities (4%)
	Number of power big data achievements with significant influence (2%)
	Number of provincial energy big data centers leading the construction and operation (2%)

(continued)

Table 1. (continued)

Dimension	Index
Serving and supporting a strong and powerful party's overall leadership system (10%)	SASAC Party Building Assessment Ranking (10%)
Serving and supporting the socialist legal system with Chinese characteristics (10%)	Assessment score for the construction of state-owned enterprises under the rule of law (10%)
Improve the modern state-owned enterprise system with Chinese characteristics (10%)	Operational effect of modern corporate governance system (5%)
	Group management adaptability (5%)
Comprehensively deepen reforms (10%)	Major reform implementation results (10%)

This research adheres to the principle of combining quantitative and qualitative, and comprehensively uses the following six methods of score assignment to calculate index scores.

Firstly, state-owned enterprises comparison. Assign scores through comparison and ranking analysis among central enterprises, including revenue, profit, investment promotion, energy cost reduction and other indicators. Taking one large power grid enterprise as an example, the average revenue in the past five years of this enterprise ranks first among all state-owned enterprises, so the percentage is 100% and the score is $100 * 1\% = 1$. In terms of profit, this enterprise ranks 20–30 among 96 central enterprises, so the percentage is 70% and the score is $70 * 2\% = 1.4$.

Secondly, global ranking. Use relevant globally rankings, the indicators such as market-based traded power and access to electricity. In terms of access to electricity, access to electricity index of China has increased significantly, ranking 10th to 15th in the world in recent years, which is relatively good, so the percentage is 90% and the score is $90 * 4\% = 3.6$. In terms of market-oriented transaction electricity, electricity market is still in the early stage of construction. Market-oriented electricity accounts for just over 40% of the company's electricity sales, and the international leading level reaches 60%–70%, so the percentage is 70% and the score is $70 * 1\% = 0.7$.

Thirdly, international benchmarking. Assign scores according to the ranking of international benchmarks, the indicators such as power grid security level, grid-connected power generation installed capacity. For example, the power grid security level and grid-connected power generation installed capacity ranks first in the world, so the percentage is 100% and the score is $100 * 2\% = 2$.

Fourthly, target gap. There are 8 indicators (the maximum value is set to 100%) clearly required by the government, so assign scores according to the gap. For example, for the indicator of distribution and transformer capacity per household in rural areas, the enterprise has carried out the transformation and upgrading of rural power grids for many years in a row, and all completed the tough battle of rural power grid transformation ahead of schedule. So the percentage is 100% and the score is $100 * 1\% = 1$.

Fifthly, external evaluation. Indicators which have high external concern such as emergency rescue tasks are assigned scores based on social evaluation. For example, for photovoltaic poverty alleviation grid-connected capacity, it is difficult to perform horizontal benchmarking, so social evaluation is used as the scoring basis. The government highly praised the photovoltaic poverty alleviation featured by the power grid. At the same time, mainstream media such as People's Daily Online and Xinhua News Agency have carried out many positive reports on the photovoltaic poverty alleviation, so the percentage is 100% and the score is $100 * 1\% = 1$.

Lastly, expert scoring. For internal work with a certain degree of professionalism such as the development and application of electric power data, experts will be invited to assign scores. For example, indicators such as group management and control adaptability, corporate governance effectiveness and other indicators are qualitative indicators. Because the indicators are highly professional and internal, experts are invited to score.

Table 2. Evaluation of the modernization level of corporate governance based on the indicator system [self-painted]

Dimension	Index	Index type	Score
Serving the construction of a modern economic system (12%)	Revenue (1%)	state-owned enterprises comparison	1
	Profit (2%)	state-owned enterprises comparison	1.4
	Received a global ranking for electricity (4%)	global ranking	3.6
	Stimulating investment amount (2%)	state-owned enterprises comparison	1.8
	Cumulative reduction of social energy costs (2%)	state-owned enterprises comparison	2
	Market-based transaction electricity (1%)	global ranking	0.7
Promote the construction of a clean, low-carbon, safe and efficient energy system (20%)	Grid-connected renewable energy installed capacity (5%)	target gap	4.6
	Electricity accounts for the proportion of final energy consumption (5%)	target gap	3
	Grid security level (4%)	international benchmarking	4
	Grid-connected power generation capacity (2%)	international benchmarking	2
	UHV annual average utilization hours (2%)	target gap	1.5
	Comprehensive line loss rate (2%)	target gap	1.6

(continued)

Table 2. (continued)

Dimension	Index	Index type	Score
Serving people's livelihood guarantee and improvement (20%)	Power supply reliability rate (5%)	target gap	4.6
	Voltage pass rate (5%)	target gap	4.5
	Customer Satisfaction (5%)	target gap	4.5
	Rural household per capita distribution capacity (1%)	target gap	1
	Photovoltaic poverty alleviation grid-connected electricity consumption (1%)	external evaluation	1
	Completion of emergency rescue tasks (3%)	expert scoring external evaluation	3
Service Governance (8%)	Completion of power security tasks for major political activities (4%)	expert scoring external evaluation	4
	Number of power big data achievements with significant influence (2%)	expert scoring	1.2
	Number of provincial energy big data centers leading the construction and operation (2%)	expert scoring	1.2
Serving and supporting a strong and powerful party's overall leadership system (10%)	SASAC Party Building Assessment Ranking (10%)	state-owned enterprises comparison	10
Serving and supporting the socialist legal system with Chinese characteristics (10%)	Assessment score for the construction of state-owned enterprises under the rule of law (10%)	state-owned enterprises comparison	10
Improve the modern state-owned enterprise system with Chinese characteristics (10%)	Operational effect of modern corporate governance system (5%)	expert scoring	3.5
	Group management adaptability (5%)	expert scoring	4
Comprehensively deepen reforms (10%)	Major reform implementation results (10%)	expert scoring	7
Total score			86.7

Quantitative evaluation based on the corporate governance modernization index system shows that the overall score of the current corporate governance modernization level is 86.7, shown in Table 2.

5 Conclusions

Evaluating the current situation of corporate governance modernization scientifically helps to enhance and improve the corporate governance capabilities of state-owned enterprises. Corporate governance modernization is an important proposition under the context and background of national governance modernization. To promote the modernization of the national governance system and governance capacity, it must take the improvement of corporate governance of state-owned enterprises as an important link and place it in a prominent position.

In general, the level of corporate governance modernization has been continuously improved, making positive contributions to serve and support the national governance modernization. At the same time, the insufficiency of the enterprise which supporting national governance modernization can be attributed to the three aspects of development quality, service efficiency and professional talent training.

In terms of development quality, the level of per capita efficiency and benefit is not high, the power grid operation efficiency needs to be further improved, and breakthroughs in key technology and core equipment need to be accelerated. In terms of service efficiency, fairness and openness, standardized operation, and optimization of the business environment need to be further improved. More efforts are needed to promote the equalization, convenience, transparency and value-added of power services. There is still a long way to go to promote the construction of the power market, and the level of service government governance can continue to improve. In terms of professional talent training, the modernization of corporate governance is inseparable from the support and training of professional talents. There is no specialized major that studies the modernization of corporate governance. Therefore, it is necessary to have compound talents with knowledge in multiple fields such as politics, economy, law, and culture. The thinking and implementation of corporate governance modernization is strongly related to the actual situation of the enterprise, and it needs to be studied and explored in practice.

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