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State asset management paradigm in the quasi-public sector and environmental sustainability: Insights from the Republic of Kazakhstan

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This study aims to improve state regulation and administration of quasi-state sector of environmental sustainability in the Republic of Kazakhstan within the social sustainability paradigm. This study is due to the need to search the balance of business interests, and efficient use of resources and their conservation on a global scale. The issues of state asset management are identified and ways to resolve them are proposed based on the corporate foresight methodology using the strategic planning mechanism. As a result of the analysis of the tools introduced into the practice of leading transnational corporations, the main directions are identified in which it is advisable to take measures aimed at streamlining and optimizing the quasi-public sector in the Republic of Kazakhstan. This article presents proposals for improving state regulation and administration of quasi-public companies in the Republic of Kazakhstan. The outcomes of this study can assist policymakers, experts, and stakeholders in gaining awareness about these problems while simultaneously improving sustainability practices.

KEYWORDS

clean energy transition, environmental sustainability, strategic planning, state assets, quasi-public sector

1 Introduction

Today, more than ever, the problem of balancing the interests of business, both public and private, and the global problems of scarcity of resources and the related problem of their preservation on a global and regional scale is acute. In international practice, the sustainable development of the state is presented as interconnected with the quasi-state sphere, which needs a balance of economic, social, and environmental spheres (Francis, 2001; Kim, 2003; Collier, 2005). The quasi-public sector in any state is the foundation of the country's economy, on which all modern processes are based, both in terms of institutional affiliation and in terms of sectoral structure. Since the state's assets are a rather complex and multi-level system, their state management is considered a rather multifaceted process.

The main components of sustainable development are political, social, cultural, economic, and environmental sustainability. In a market economy, the achievement of sustainable development is interrelated with environmental sustainability. The reason is the increase in resource efficiency use through the introduction of more advanced and environmentally friendly (non-waste) technologies is becoming the main task of many states, including quasi-state companies and market participants. Currently, the relationship between macroeconomic and environmental parameters is given great importance (Shan et al., 2021; Ojekemi et al., 2022). In this regard, scientifically based environmental management, recycling of production, and consumption of wastes are relevant topics (Adebayo, 2022a; Adebayo, 2022b; Du et al., 2022). The reason is that ecological production, at this stage of development of the economy of states, is becoming an increasingly significant factor in competitiveness. The production of ecological products and waste processing are promising types of entrepreneurial activity (Adebayo et al., 2022; Akadiri et al., 2022; Hossain et al., 2022). The higher the environmental sustainability of market participants, the higher the environmental efficiency of the development and functioning of the economy, and the social and environmental stability of society.

However, quasi-public companies have a greater impact on the economy than small private companies. Therefore, quasi-public companies can increase the level of environmental awareness and activity in society by resorting to formal and informal education methods from childhood, as well as regular posting of information on official Internet resources and social media accounts, and other measures. Populations living in environmentally sensitive areas should have greater opportunities to participate in the decision-making process that will affect society. Environmental sustainability issues should be reflected in educational programs and in all strategic decisions, the consequences of which are subject to regular evaluation (Shutaleva et al., 2020a; García-Morís and Martínez-MedinaTrainee, 2022; Ma and Jin, 2022). The

proposed measures will make it possible to form an "ecological culture of the population" in society, and the promotion of environmental knowledge—the development of environmental education and enlightenment to ensure sustainable development. Thus, environmental sustainability is the effective management of natural resources in production activities, allowing them to be preserved for future needs. And quasi-state companies and state companies cannot dispose of it as an inexhaustible source of resources, even if their goal is to satisfy human needs through consumption.

This article is devoted to studying ways to improve state regulation and administration of quasi-state companies within the sustainability paradigm in the Republic of Kazakhstan. Currently, the Government of the Republic of Kazakhstan is asking a difficult task to reform the quasi-public sector. Economic and social problems in the Republic of Kazakhstan demonstrate the need to search for effective strategies for the development of a quasi-public sector. This circumstance determines the relevance of the presented study of the existing situation, considering the social, economic, and environmental aspects of the serial development of society.

One of the main problems of the modern development of the Republic of Kazakhstan is the need to determine a clear role and place of the subjects of the quasi-public sector in the system of state planning. This situation distinguishes the state of the Republic of Kazakhstan from developed countries and creates the need to comprehend international experience and apply its methodology, considering the specifics of the socio-economic development of the country.

In the Budget Code of the Republic of Kazakhstan, the concept of "state assets" is set out in the following wording: "state assets are property, and non-property benefits and rights that have a valuation received into state ownership because of past operations or events" (Budget code of the Republic of Kazakhstan, 2022). Quasi-state companies have more liquid assets than the state companies. However, quasi-state companies play an important role in the markets (Makushkin and Lapshin, 2021). The issue is aggravated by the accelerating processes of digitalization of the process of interaction between subjects of various forms of ownership. The Internet determines the life of modern society, including the main business processes (Afonsova et al., 2019; Khachatryan, 2021; Nicolaou, 2021). It is necessary to consider the specifics of the digital economy and the need for state regulation of electronic interaction. In the Republic of Kazakhstan, this trend also applies to public sector procurement and information resources (Subjects of the quasi-public sector, 2022). Currently, the relevance of improving asset management efficiency is only increasing.

The Republic of Kazakhstan strives to be consistent with the goals and principles of sustainable development. However, several important aspects should be considered when analyzing the specifics of the implementation of the concept of sustainability in the Republic of Kazakhstan. Such aspects

include structural, economic-geographical, and traditional priorities of the Kazakh society.

The interaction between the public and private sectors has historical roots in the Republic of Kazakhstan. The modern trend of this interaction is to shift the focus on the problem of sustainable development of cities and the growth of the quality of life. These processes require a rethinking of the goals, institutions, and mechanisms of policy in the field of public asset management. We proceed from the fact that the policy of managing state assets should achieve systemic and transparent management of state property and ensure social and economic stability in the country and its regions.

The economy of the Republic of Kazakhstan is characterized by low dynamics in the development of the private sector and dependence on primary industries (Aubakirova, 2020; Nurpeisova et al., 2021). This circumstance predetermines the fixation of the quasi-public sector as an essential factor in the development of the economy. Currently, the Government of the Republic of Kazakhstan is taking certain actions to strengthen the management of the quasi-public sector (Kazakh Government Adopts Plan to Reform Quasi-Public Sector, 2022). These measures include the separation of the role of the state as owner and manager, the creation of national holdings for the management of state assets, and development institutions. However, today there are challenges in the economy and social problems in the population of the regions. This circumstance allows a state that the quasi-public sector's current model has several systemic shortcomings.

A legitimate mechanism for the effective management of state assets in the quasi-public sector of the economy of Kazakhstan is impossible without a comprehensive analysis of the state of management of state assets. We believe that the key problem is in the inefficient use and management of state assets, even if they can be sold commercially. This trend leads to the lack of proper influence of state assets on economic growth in the region and improvement of the quality of life of the population of the Republic of Kazakhstan. In this regard, the authors of this article intend to propose the results of a study aimed at creating an effective system for managing state assets in the quasi-public sector.

This article is aimed to find ways to improve state regulation and administration of quasi-state companies in the Republic of Kazakhstan within the framework of the sustainability paradigm. The relevance of this study is in the need to introduce balanced strategic planning, rethinking the goals and mechanisms of socio-economic state policy in the Republic of Kazakhstan. We proceed from the international theory and practice of applying the methodology of corporate foresight using the strategic planning mechanism. We undertook a study to develop recommendations that will allow reformatting the management system of the quasi-public sector in the Republic of Kazakhstan. The implementation of this goal determined the following logic of this study. Section 2 shows the results of the

study of existing approaches and issues of quasi-public sector development in the context of the sustainability paradigm. Section 3 presents the foresight methodology as the main one for the proposed study. Section 4 presents an analysis of the process of regulating the activities of quasi-state companies with the participation of government departments. The quality of regulation of quasi-state companies needs to be addressed the most problematic issues, among which we have considered the following: lack of a clear institutional framework; low financial efficiency of quasi-state companies; high share of the state in the economy; lack of a comprehensive system for monitoring and evaluating the activities of quasi-state companies; the imperfection of a single information resource about quasi-state companies; weak corporate governance. Section 5 presents proposals for improving state regulation and administration of quasi-public companies in the Republic of Kazakhstan. Section 6 presents conclusions drawn about the ways to streamline and optimize the quasi-public sector in the Republic of Kazakhstan.

2 Literature review

Sustainability is a paradigm that affects the environmental, economic, technological, industrial, social, and other areas of society in its current and future development perspective. In 1987, the United Nations General Assembly published the report *Our Common Future*, which presented the concept of sustainability as a concept for the development of society, involving the responsible use of natural resources, considering the preservation of nature for the life of future generations [(WCED, 1987), p. 43]. One of the main conclusions of the World Conference in Rio de Janeiro (1992) is the recognition that the existing production and consumption systems will inevitably lead to a global catastrophe (*Rio Declaration on Environment and Development, 1992*). This concern and the formation of a paradigm of sustainability are based on the fact of environmental destruction and the catastrophe that threatens all of humanity. In this regard, innovations in the sphere of macroeconomic and environmental parameters (Shan et al., 2021; Ojekemi et al., 2022), production and economy (Schaltegger et al., 2012; Baimuratov et al., 2020; Yizhe et al., 2020), environmental management, recycling of production (Adebayo, 2022a; Adebayo, 2022b; Du et al., 2022), environmental ecology (Frazier et al., 2019; Valko, 2021a; Leigh and Li, 2015; Piscitelli and D'Uggento, 2022), production of ecological products and waste processing (Adebayo et al., 2022; Akadiri et al., 2022; Hossain et al., 2022), urban development (Trencher and Karvonen, 2017; Krupkin and Gorodnova, 2018; Dixon and Brears, 2021), education for sustainable development (Berchin et al., 2012; Shutaleva et al., 2020b; Valko, 2021b), improvement of the welfare of the population (Pissourios, 2013; Mendoza-Cavazos and Leal Filho, 2019; Shutaleva et al., 2022), preservation

of cultural traditions, and mutual respect of members of society (Alaimo, 2018; Loginov, 2019; Bakeeva and Biricheva, 2021).

For the study of state regulation and administration of quasi-state companies, the concept of economic sustainability as the main element of sustainability is of particular interest. Economic sustainability is fundamental to social sustainability, which requires a basic level of financial resources to meet the needs of society's members (Dernbach, 1998; Zeijl-Rozema et al., 2008; Rai et al., 2021). The economic perspective of sustainable development emphasizes the maintenance of various types of capital (Kevin, 2010; Costanza, 2020; Porreca, 2020). Sustainability is a synergistic phenomenon; that is, it is formed in the interaction of economic, environmental, and social spheres and types of capital (Illankoon et al., 2017; Eklova, 2020; Simangan et al., 2021). However, the social, environmental, and economic aspects of sustainability tend to be mutually exclusive in practice, which creates threats for Morelli (2011) paid attention to such an aspect of economic sustainability as the inclusion in it of an analysis to minimize social costs and compliance with environmental asset protection standards.

One of the significant aspects of economic sustainability is the development of a unified measure of economic and environmental aspects of sustainability. Scott (2013) defined economic sustainability as long-term competitiveness, profitability, and shareholder satisfaction. Competitiveness and profitability must be associated with innovativeness, resource optimization, elimination of short-term thinking, and environmental hazards of production.

Economic sustainability needs a balance of efficiency and sustainability, it is determined by the nature and measurable structures of economic systems (Lietaer et al., 2009). Economic efficiency assumes that the requirement to satisfy more needs at the expense of fewer resources is met. The sustainable functioning of firms implies financial viability and the protection of the firm from external and internal threats in the present and future perspective (Naciti, 2019; Rustam et al., 2020; Hermundsdottir and Aspelund, 2021). Sustainability and security are the most important components of the enterprise economy, ensuring its integrity and unity as a system. An organization's security involves protecting its human and intellectual potential, information, technology, capital, and profits. The company's economic security is realized through the effective use of corporate resources to ensure the stable functioning of the organization. In this regard, the strategic development of economic, organizational, legal, engineering, and social measures is particularly important. Strategic planning allows the company to remain in a state of life support in the face of economic crisis and risk (Hastings, 2000; Lagàri et al., 2021; Waiganjo et al., 2021).

In the macroeconomic aspect, the following criteria of economic sustainability are significant: competitiveness (Buhalis, 2000; Armenski et al., 2018; Arunachalam and

Fountis, 2021), innovativeness (Hemmelskamp et al., 2000; Jänicke et al., 2000; Akbar, 2021), and public debt (Albu and Albu, 2021; Grosu et al., 2021; Adeve and Karabou, 2022). In 2005, Spangenberg (2005) noted that in the context of sustainable development, such criteria of economic sustainability as inflation and trade imbalance are practically not discussed. However, in studies of recent years (Barthélemy and Cléaud, 2018; Elimam, 2021; Skvortsova et al., 2022), trade balance, imbalance, and inflation are the subjects of research. Spangenberg (2005) also notes that traditional economic sustainability measures, such as aggregate demand and consumption levels are secondary in the current debate. However, these issues are significant for the modern discussion of economic sustainability (Sağlam and Egili, 2018; Aydın and Tirkolae, 2022; Chan et al., 2022).

One of the significant topics of the sustainable development of society is the liberal intellectual tradition and its criticism in modern studies (Hart-Landsberg and Burkett, 2005; Petrucciani, 2020; Sørensen, 2022). The reason for the criticism is that the transition to the market has led to the widespread dissemination of quasi-public and quasi-private phenomena based on the interpenetration between the state and society. Francis (2001) points to an alternative concept implemented in China's emerging market economy.

Developing the quasi-public sector of the economy is important for the sustainable development of society and the state (Francis, 2001; Qian et al., 2019; Kamenev, 2021). At the same time, studies of the functioning of the quasi-public sector in the Republic of Kazakhstan relate to certain problems, for example, the mechanism for monitoring procurement in the quasi-public sector (Khamitov, 2020), institutional and investment mechanisms to support the agro-industrial complex (Taubayev et al., 2017). Issues of the quasi-public sector in the Republic of Kazakhstan need further research for further development and improvement.

The state has a large mass of assets and corporate governance tools. In connection with this circumstance, there are opinions about the need to establish control over the activities of state corporations (Avdasheva and Simachev, 2009). One of the significant problems is the problem of inefficient management of state property and the contradiction in the performance of enterprises in public and private sectors (Fominykh, 2004; Luzan, 2004; Zhavoronkov, 2004).

The development of an effective state policy for the prudent use of regional assets is necessary to reduce the degree of the negative impact of international sanctions on the state. At the same time, the main role of state policy should not be in the distribution of income between regions but in creating conditions for the involvement of these assets in economic activity, which should improve the population's quality of life (Emelyanov et al., 2016). At the same time, tools for assessing the effectiveness of state property management are not properly involved in different regions of the country (Kamaev, 2012). Solovyov (2008) believes that when managing state assets of the economy, it is important

to observe the principle of ensuring a balance of interests between economic efficiency and social responsibility.

The key indicator of the effectiveness of public administration is its impact on the population's quality of life (Baimuratov et al., 2020; Vasiliev and Sushko, 2021; Zhanbayev et al., 2021). The ability to apply country experience and, in general, international trends in public asset management in "transition" countries depends on many factors that influence the development of these countries and specific national and international forces (So, 2005; Roje and Redmayne, 2021). Nazif Çatık et al. (2020) analyzed asset pricing models considering changes in oil prices and exchange rates. They refine the methodology for assessing asset management's effectiveness in terms of market prices' influence on them and conclude that this factor affects industry profitability less than the exchange rate return.

Yan et al. (2020) investigate the incentive effect of reputation and the deterrent effect of oversight on the allocation of public assets in budget management. The researchers conclude that the incentive effect of reputation is effective for a high cost of the budget unit, and the constraining effect of supervision is effective for a budget unit with a low cost.

It should be noted that a significant part of the research in the field of state property management states inefficiency due to bureaucracy and lack of accountability of state organizations. At the same time, research on the activities of private structures is devoted, on the contrary, to the accumulation of profits from the investments of private investors, and the lack of analysis of the effectiveness of public investments (Noring, 2019).

3 Materials and methods

Methodological database of research in the field of public asset management. When studying the state of private asset management, empirical general scientific methods of cognition were also used. A method of observing and collecting facts of regularities in the processes of reproduction in their nature. This method of identifying the neonatal state of state assets in a quasi-state republic was determined in Kazakhstan and revealed a problem.

A systematic approach is used as a methodological approach, within which methods of logic, statistical analysis, and synthesis are provided. This methodological approach served by our procedure for the corporate foresight mechanism to use the right of transnational corporations (Kovářiková et al., 2017; Semke and Tiberius, 2020; Wenzel, 2022).

Foresight is based on the method of self-expression of expert assessments and includes the active formation of an image of the future and the determination of development priorities. This method makes it possible to develop a forward-looking program of action to respond to the main requirements and achieve the goal. The obvious advantages of corporate foresight have served

to form improved expectations from its practical application, which is associated with the choice of research methodology. There was an opinion that now there is a transition from management to strategic foresight (Gatignon and Xuereb, 1997; Danielson, 2014). However, it is believed that the possibilities of foresight are still limited. Foresight cannot fully replace the selection system, but it can significantly increase its effectiveness as its complement.

We find with those authors who believe that foresight's strength is not in tools and methods but in influencing the minds and views of people. Carries out foresight competencies that can transform their organizational culture (Ansoff et al., 1976; Ruff, 2015). Thus, using the foresight mechanism attracts more responsibility for improving the efficiency of quasi-state litigation. When addressing issues of research methodology, emphasis is placed on the approach to private asset management from an objective orientation towards dynamically changing emerging markets in the context of special transformations of the competitive landscape. The implementation of this goal is possible when using the foresight methodology. The effectiveness of such a methodology is its benchmark for achieving sustainable economic development. Of course, the foresight mechanism is crucial for transnational businesses (Bereznoy, 2017). For us, foresight is of interest in sequential analysis in the next protocol for the economy of Kazakhstan, namely, in the quasi-statistical protocol.

We proceed from the fact that using foresight tools makes it possible to increase the efficiency of managing third-party assets. The application of this methodology is carried out in the main directions aimed at streamlining and optimizing the quasi-energy sectors in Kazakhstan: *Firstly*, the need to distinguish between three levels of the quasi-public sector, depending on the degree of influence on operational activities and the loss of income for the development of the country's economy. *Secondly*, creating a new national holding showed that the attitude toward the state is strategic and a priority for the country's economy. *Thirdly*, the creation of a share of the quasi-public sector increases the risk of reducing the functions of the state structure and body to use the synergistic effect of public-private consumption. *Finally*, the quasi-public sector should not restrict competition but oppose the stimulation of business development in all its forms and the diversification of the economy.

4 Results

We justified the application of the triple helix model in forming a conceptual mechanism aimed at the interaction of the prominent participants: business, government, education, and science, which correlates with (Baimuratov et al., 2020). In this study, we believe it is correct to use and test the methodology of the above-mentioned conceptual approach for

TABLE 1 Elements of the corporate foresight mechanism for quasi-public companies.

No.	Tools of the mechanism	Content	Main participants
	Assessment of the current state of affairs	Formation of an information basis for the analysis of the past, present, and future situations of interaction between business, society, quasi-state companies, and the state	Quasi-state companies
	Mission	Definition of a comprehensive goal that includes both internal and external guidelines for cooperation	Quasi-state companies
	The general goal	Establishment of specific end states of the interaction model or the desired result	Quasi-state companies
	SWOT analysis	Analysis of the strengths and weaknesses of the socio-economic development of the region, as well as potential opportunities and threats	Quasi-state companies
	Priorities		
	Business development	A set of actions aimed at implementing favorable conditions for effective development that meet the needs of society and business	Business community and quasi-state companies, government
	Cooperation	Development of joint projects of stakeholders and businesses on the so-called "information mediation."	Business community and quasi-state companies, government
	Clustering	Development of joint development programs within the framework of the creation of industry groups	Business community and quasi-state companies, government
	Partnership in moving forward	Ensuring cooperation with stakeholders to create a favorable market environment	Business community and quasi-state companies, government
	Practice and Discourses (Planning)	Practice and discourses in which the forecasting and design of the "Future in the present" is carried out	Business community and quasi-state companies, government
	Shaping the Future (Implementation of Strategic Directions)	Development of a strategy for the implementation of the concept Formation of scenarios, drawing up roadmaps that increase competitiveness and quickly respond to market changes in the internal and external environment when making managerial business decisions	Business community and quasi-state companies, government

public-private interaction based on the corporate foresight toolkit. Table 1 presents elements of corporate foresight for the sector on which the sustainable development of the economy depends, which is the quasi-public sector.

Here are the main elements of the corporate foresight mechanism for quasi-state companies that most strongly affect the achievement of sustainable economic development goals. The expansion of the activities of quasi-state companies requires the development of a single vector of development, considering the specifics of the market segment, the application of a systematic approach to monitoring compliance with the norms of optimal conditions for assessing their economic and social results, and considering the development priorities of the Republic of Kazakhstan. At the same time, special attention should be paid to effective infrastructural support for business and the identification of stakeholders, raising the level of awareness of business and society, and identifying the country's resource and market opportunities. In this regard, the application element can be used to increase the use of digital technologies.

The lack of a clear institutional framework for quasi-state companies is noteworthy, which negatively affects the ability to determine priority goals and objectives and to measure their achievements qualitatively and quantitatively. Clustering allows tracking changes in the current architecture of the system of state and quasi-state companies. On this basis, it is possible to activate

the system of monitoring and evaluating their effectiveness while influencing the goal of development stability.

Action planning involves solving the problem of financial returns from the activities of quasi-public companies and, consequently, state participation. To this end, an action plan is being drawn up, and ongoing measures are aimed at modernizing the activities of state and quasi-state companies, including increasing investment attractiveness.

From our point of view, the results of the search for the results of activities of quasi-state companies are especially relevant for the economy of the Kazakhstani regions. Today, the issues of public-private ownership in the regions are in a state of lack of demand. This tendency is due to the low growth of the innovative dynamics of the socio-economic development of the regions and the subsequent weak competitive environment. In this plane, the role of the public sector represented by the quasi-public sector, which, as you know, manages the distribution of most of the resources, is more important than ever. Thus, planning their activities is a necessary factor in the economy's stability.

Sustainable development is possible with the balance of three main components: the growth of economic and social responsibility and environmental balance. In this article, the emphasis was on economic growth and social things, and environmental things were considered in our observations.

TABLE 2 Information on the number of state institutions in the Republic of Kazakhstan (for 2021).

No.	Name	Quantity, units
	State bodies (thousand)	8.3
	State institutions in the field of education (schools, out-of-school organizations), (thousand)	7.8
	Objects of culture and sports (houses of culture, sports schools, archives, libraries), (thousand)	1
	Objects in the field of healthcare and social protection (hospitals, clinics, centers for adaptation, employment)	500
	Institutions are represented in the structure of the ministries of defense, internal affairs (military units, detention centers, penitentiary institutions)	400
	Youth centers	180
	Other institutions (service centers, veterinary stations, transport organizations)	150
	Total, (thousand)	18.3

TABLE 3 State and quasi-state companies in the non-social sphere of the Republic of Kazakhstan.

No.	Name	Quantity (units)
	Organizations of the Samruk-Kazyna Fund	204
	Veterinary stations	194
	Water supply	79
	Development Institute	63
	Organizations supporting the activities of state bodies	37
	Mass media organizations (media)	33
	Organizations in the field of housing and communal services (heat, energy, gas supply, water supply, landscaping)	25
	Investment funds	29
	Single operators	20
	Organizations in the field of energy and electricity supply	23
	Plants	22
	Transport organizations	13
	State monopolies	11
	Service companies	29
	APK	7
	National companies	10
	FEZ operator	2
	Other	17
	Total	818

From this point of view, we examined the analysis of the process of regulating the activities of quasi-state companies with the participation of government departments. This study made it possible to identify the most problematic issues that can

sufficiently improve the quality of their management, and this should be focused on the sustainable development of the economy.

4.1 The first problem is the lack of a clear institutional framework

In 2021, the state will be the owner of about 25 thousand state institutions, state enterprises, JSCs, and LLPs. 18.3 thousand (Table 2).

6.4 thousand subjects of the quasi-public sector, including five thousand organizations (or 78%) are social (education (3.5 thousand), culture and sports (more than 800), healthcare and social protection (more than 700)); related to the non-social sphere, 818 organizations, excluding organizations included in the Comprehensive Privatization Plan (736 organizations) (Table 3).

So, out of 25 thousand state institutions, state enterprises, joint-stock companies, and limited liability partnerships, 23.4 thousand organizations belong to the social sphere, these are state bodies, organizations in the field of education, healthcare, social protection, culture, and sports.

These subjects strategically influence the economic system at the state level. However, objectively, such a mass of subjects needs to create a balanced mechanism for managing quasi-state structures. The reason is the lack of consistency based on their classification and accounting makes it difficult to develop a single vector for the development of the industry. It is necessary to identify the main groups of quasi-state companies, in respect of which it is necessary to apply various management mechanisms. To complete this task, the following factors must be considered:

1. First, the system does not divide quasi-state companies into commercial and non-commercial activities. As a result, the same approach is applied to all enterprises; common requirements are imposed, even though organizations are all different in terms of goals and objectives of creation. For example, national companies face different challenges than schools and hospitals. There are also non-commercial enterprises among the national companies—Kazakhinvest JSC, by its nature, cannot generate income; therefore, it cannot be put on a par with other commercial joint-stock companies of the quasi-public sector.
2. Lack of systematic approaches to defining organizational and legal forms. As a result, when creating quasi-state companies, the issue of applying one or another type of organizational and legal forms is determined by the initiating state body itself. For example, in the field of education, organizations operate in various organizational and legal forms, which is associated with the lack of a unified approach to their financing. Thus, schools are registered as state institutions or state enterprises

on the right of economic management. This is because, for state-owned enterprises, the per capita funding standard is higher than for state institutions. As a result, this leads to a different amount of funding, the level of remuneration of teachers, as well as accounting for the property.

At the same time, it is not entirely clear what institutional differences exist between one or another status of quasi-state companies: national management holdings, national holdings and companies, and national and regional development institutions.

3. Accounting for state property is carried out at four levels. Each of these levels is vested with the right to independently determine the procedure for managing state property, which creates conditions for a fragmented policy in this area. Accounting in the authorized body (State Property and Privatization Committee) is not subject to the property of organizations, the founder, participant, or shareholder. In this regard, completeness and reliability of accounting are not ensured, as there are cases of lack of information about individual objects.
4. The lack of a clear institutional framework for quasi-state companies negatively affects the system for monitoring and evaluating the effectiveness of quasi-state companies, the ability to determine the necessary goals and objectives based on the specifics of the activities of quasi-state companies, measuring their achievements and implementation.

4.2 The second problem is the low financial efficiency of quasi-state companies

Net income at the end of 2020 amounted to 67,98,510 thousand tenges. That is, it remained at the level of 2019 for 67,91,000 thousand tenges. At the same time, 95% of the net income of quasi-state companies falls on the share of NWF Samruk-Kazyna JSC and only 5% on the share of other legal entities. In 2020, the total income of quasi-state companies for the reporting period amounted to 23.1 billion tenges, which is 15% lower compared to 2019 and amounted to 27.08 billion tenges. The total expenses in 2020 of quasi-state companies for the reporting period amounted to 14.2 billion tenges, which is 26% lower than the same period in 2019, which amounted to 19.2 billion tenges.

The practice of state financing of quasi-state companies continues. So, in 2019, 817.4 billion tenges was allocated from the republican budget, in 2018—659.2 billion, and 2017—838.8 billion tenge. In addition, funds allocated from the budget to support businesses in various sectors of the economy have become a source of income for many quasi-state companies. For example, receiving 0.5%–1% from the

budget or the National Fund, some quasi-state companies finance businesses and citizens at inflated rates of 9%.

The level of external debt of the quasi-public sector remains quite high and continues to grow. In 2020, its size amounted to 20.1 billion US dollars. There are systemic shortcomings in the dividend policy. At the end of 2020, the growth of debt obligations compared to the level of 2019 amounted to 15%. The amount of dividends paid to the state does not exceed 7% of the net income received. This fact is associated with an increase in the unprofitability of quasi-state companies and other distributions in favor of the shareholder to finance non-core facilities. Thus, strengthening control over the debt load and clear regulation of corporate and dividend policy should be one of the stages of the implemented strategic planning.

4.3 The third problem is that the state's share in the economy remains high

The share of state participation in the economy remains high compared with the Organization for Economic Cooperation and Development indicators. Thus, the actual share of the consolidated assets of the national managing holdings of Kazakhstan to the country's GDP amounted to more than 50%. The main tools to reduce the state's share in the economy are privatization and a reduction in the list of activities carried out by quasi-state companies. However, the potential for using these mechanisms is insufficient. For example, the selection of quasi-state companies for privatization is carried out without an appropriate level of transparency and in-depth analysis of the consequences of privatization. In addition, despite the reduction in the list of permitted activities for quasi-state companies in 2020 by 107 types, 306 activities currently remain, some of which can be performed in the private sector. The reduction did not lead to the actual optimization of quasi-state companies since the reduced activities were not related to their main activities.

According to the list of activities approved by Government Decree No. 1095 of 28 December 2015, quasi-public sector entities can still carry out activities in the areas of interpretation and translation, buying and selling real estate, cleaning activities, web portals, bus transportation, advertising in the media, the activities of security organizations and other areas. The imposition of a moratorium on the creation of new quasi-state companies did not help increase efficiency.

4.4 The fourth problem is the lack of a comprehensive system for monitoring and evaluating the performance of quasi-state companies

The applied system for monitoring and evaluating the effectiveness of state property management does not allow for improving the quality of the activities of quasi-state companies.

We note the following shortcomings:

1. Only certain categories of quasi-state companies are subject to assessment. Mainly these are state institutions and enterprises. Large quasi-state companies (for example, NWF Samruk-Kazyna JSC and its portfolio companies) are not subject to the requirements for assessing the effectiveness of their activities. A significant share of quasi-state companies in terms of assets and budgetary investments remains without regular objective assessment.
2. For the assessment, the Rules for monitoring the effectiveness of state property management, approved by the Government Decree of 4 December 2012, No. 1546, as well as the Rules for assessing the effectiveness of state property management, approved by order of the Ministry of National Economy of 11 March 2015 No. 193, are used. However, they do not allow to fully carry out monitoring of the activities of quasi-state companies. Thus, the Rules for the implementation of monitoring (1,546) do not regulate the mechanism for implementing recommendations based on monitoring results, which reduces the effectiveness of the analytical process. The rules for evaluating the effectiveness of state property management (193) also do not reflect the real situation of the activities of quasi-state companies. They do not contribute to improving the efficiency of state property management. The reason is that the assessment uses common parameters. For example, criteria are used for “Reducing the number of organizations with a negative financial result,” “The presence or absence of state-owned enterprises and state-controlled joint-stock companies (LLPs) that do not have key indicators that can be quantified in the approved development plan.”

4.5 The fifth problem is the imperfection of a single information resource on quasi-state companies

Currently, the informational secrecy of quasi-state companies is maintained. In the public domain, there is no data on the structure of many companies, financial activities, staffing, dividends paid to the shareholder, and other aspects. This trend is especially true for state-owned enterprises that do not publish the necessary information about their activities.

By transferring part of the functions of information technologies of portfolio companies to a competitive environment, several tasks can be solved: 1) development of the information technology management function, 2) ensuring business continuity, taking into account the balance between obtaining benefits and optimizing risks and resources, 3) developing the domestic market information technologies.

In addition, it is also important to ensure the information security of quasi-state companies. To build a system for managing and ensuring information security at a group level

according to the principle of a service model, the following actions are required: 1) increase the level of maturity of management and information security processes, 2) reduce their risks, 3) reduce response time, 4) reduce the costs of eliminating the consequences of information security incidents. Thus, the key factor for the success of quasi-state companies should be the effective completion of the digital transformation processes of quasi-state companies.

4.6 The sixth problem is weak corporate governance

Corporate governance in Kazakhstan, not only in quasi-state companies, is used quite formally and is not in demand by business owners, shareholders, and stakeholders. At the same time, in joint-stock companies, the issue of corporate governance is regulated by the Law of the Republic of Kazakhstan “On Joint Stock Companies” and other regulations. However, only separate corporate governance elements have been implemented for state-owned enterprises and limited liability partnerships. The current legal framework does not provide for the responsibility of members of the supervisory and executive bodies of quasi-state companies, which, in turn, affects their effectiveness. Issues of transparency and accountability of quasi-state companies have not been settled. In terms of decision-making, there is a risk of the excessive influence of the central and local executive bodies in charge of the relevant industry, their excessive interference in the activities of quasi-state companies, including the centralization of tasks, often at odds with the strategy of quasi-state companies.

The sustainable state’s economic basis is provided to a large extent by the quasi-public sector. Therefore, there is no doubt about the need to determine priorities in the management of quasi-state companies that would give a vector for the sustainable development of the economy. In this regard, we assume the following recommendations for reforming the quasi-public sector management system in the Republic of Kazakhstan.

1. It is necessary to form a new institutional structure for the activities of quasi-state companies, reflecting a clear delineation of functions, processes, tasks, and criteria for assessing their effectiveness.
2. Considering the classification and type of activity, for each group of quasi-state companies, establish separate financial criteria and indicators for the implementation of strategic and tactical tasks.
3. Improve the financial discipline of quasi-state companies.
4. Reduce the share of state participation in the economy.
5. Ensure transparency of activities and openness of quasi-state companies of the Republic of Kazakhstan.

6. Increase the information content of monitoring and evaluation of quasi-state companies.
7. Ensure the quality of corporate governance in accordance with global ethical standards.

5 Discussion

This study is based on the analysis of problems and the search for their solutions in the regulation of the activities of quasi-state companies. In this regard, in this section we discuss proposals for improving state regulation and administration of quasi-state companies. In this section, we discuss such aspects as economic growth, the social dimension, and environmental issues of the proposed recommendations. The legitimacy of this approach lies in the fact that the quasi-public sector, like no other, is most represented in the social sphere and the environment.

5.1 It is necessary to form a new institutional structure for the activities of quasi-state companies, reflecting a clear delineation of functions, processes, tasks, and criteria for assessing their effectiveness

It is important to revise the current classification of quasi-state companies based on the goals and objectives of these organizations. First, it is important to provide for the separation of legal entities with the participation of the state, depending on the commercial and non-commercial orientation. Further, commercial, and non-commercial quasi-state companies are proposed to be divided into two types presented in [Table 4](#):

5.2 Considering the classification and type of activity for each group of quasi-state companies, establish separate financial criteria and indicators for implementing strategic and tactical tasks

If the organizations are non-profit social and implement national policy, then the following conditions should apply to them:

- they should not be subject to requirements in terms of profitability, while their activities should be break-even;
- indicators of their effectiveness should be the quality provision of social services and the achievement of strategic (key) indicators;
- financing of these groups should be carried out by the estimated principle and through the state order.

To commercial infrastructure, strategic quasi-state companies, as well as development institutions:

- there must be requirements for profitability;
- indicators of their effectiveness to consolidate the achievement of strategic indicators;
- implementation of financing at the expense of own funds and through budget financing and borrowing in the capital market.

5.3 Improve the financial discipline of quasi-state companies

We consider the experience of some developed countries (for example, Australia), where methodological instructions (Commonwealth Government Business Enterprises – Governance and Oversight Guidelines) have been developed for government business companies that help manage their activities. The instructions contain companies' main financial, strategic, and reporting requirements to comply with. By analogy with these instructions, it is necessary to develop a document that fixes the basic requirements for the activities of quasi-state companies.

The risk of insolvency of quasi-state companies can become a threat to the stability of the country's economy. In this regard, it is necessary to strengthen monitoring of the level of external debt of quasi-state companies. For example, constant monitoring and control over external and internal loans of the CSC have been carried out since 2018 in pursuance of the order of the Head of the Presidential Administration "On approval of the Action Plan for the implementation of the instructions of the President of the Republic of Kazakhstan given at the opening of the third session of the Parliament of the Republic of Kazakhstan of the sixth convocation on 4 September 2017." The issue of maximizing the payment of dividends is being worked out as part of the instructions of the Head of State following the expanded meeting of the Government of 10 July 2020. Transparency and accountability of the activities of the quasi-public sector are being worked out within the framework of the National Action Plan for the implementation of the Address of the Head of State.

5.4 Reduce the share of state participation in the economy

It is advisable to carry out separate work to identify and liquidate or restructure or privatize inefficient (unprofitable) organizations. The list and goals of the activity of quasi-state companies should be reviewed, considering new strategic tasks and national priorities of the Republic of Kazakhstan.

TABLE 4 Commercial and non-commercial quasi-public companies.

No. Commercial quasi-public companies

Infrastructural, strategic	Development institutions
JSC “National Company “Kazakhstanemirzholy”; JSC National Atomic Company Kazatomprom; JSC “National Company “KazMunayGas”; National Welfare Fund Samruk-Kazyna	JSC Baiterek National Managing Holding JSC; JSC “Development Bank of Kazakhstan”, Social- entrepreneurial corporations
Non-profit quasi-state companies	
Social non-profit quasi-state companies	Companies implementing national policy on specific issues

In addition, conducting a critical assessment of their activities and the return on budgetary investments is necessary. For example, it is advisable to consider the consolidation of development institutions in the development and export promotion field. The same work can be done with organizations in the field of technological development. For example, following the Government Decree dated 30 July 2016 No. 450, Export Insurance Company KazakhExport JSC, National Company KAZAKH INVEST JSC, Kazakhstan Industry and Export Center QazIndustry JSC are designated as institutions in the field of development and promotion of exports. QazTrade Trade Policy Development Center JSC. Also, the issues of supporting exporters are dealt with by the Development Bank of Kazakhstan JSC, Damu JSC, the Foreign Trade Chamber of NCE Atameken, and animats.

Technological development issues are assigned to the Center for Engineering and Technology Transfer JSC, QazTechVentures JSC, and Astana Innovations JSC. Considering the low efficiency of social entrepreneurial corporations and diversion to non-core activities, it is necessary to take measures to reduce the portfolio of social entrepreneurial corporations, their subsidiaries, and affiliates by transferring them to a competitive environment, as well as to get rid of non-core assets, including them in the list of privatized objects. For example, an analysis of the activities of this institution conducted by the Ministry of National Economy shows that among 17 social and entrepreneurial corporations, there is no unified approach to the implementation of state programs and territorial development programs. Often their activities do not correspond to the main goal, namely, to support business initiatives, stimulate economic activity in the growth points of the regions, and are unprofitable. The return on assets of social entrepreneurial corporations in most regions has

negative values. More than a third of the subsidiaries of social and entrepreneurial corporations are inactive. There is a lack of activity in these enterprises in the search for investment opportunities.

5.5 Ensure the transparency of activities and openness of quasi-state companies of the Republic of Kazakhstan

We propose the following measures to ensure the disclosure of information about quasi-state companies:

- use of modern information technologies to improve the efficiency of collection, processing, analysis, and public disclosure of information by issuers and other financial market participants, as well as to provide access to databases for all interested parties;
- it is necessary to introduce the standard of openness of quasi-state companies.

For the most effective satisfaction of users' information requests regarding the activities of quasi-state companies, it is necessary to create a data access infrastructure that provides for the organization of feedback. Creating effective feedback will allow the organization's management to quickly respond to changing information user requests, which will increase the organization's value in the eyes of its stakeholders and create a competitive advantage.

5.6 Increase the information content of monitoring and evaluation of quasi-state companies

It is important to revise the approach to accounting for state property. At the same time, the Register of State Enterprises and Institutions, Legal Entities with State Participation in the Authorized Capital should be updated. In addition, it is necessary to ensure at the legislative level that the requirements for monitoring and evaluating the effectiveness of state property management and financial and economic activities are extended to all quasi-state companies. It is also important to strengthen the Rules for monitoring the effectiveness of state property management (1,546) by regulating the mechanism of execution based on the results of monitoring recommendations. Include the Accounts Committee in the system for monitoring the effectiveness of state property management. During the revision of the Rules for assessing the effectiveness of state property management (193), the emphasis will be shifted to the socio-economic efficiency of quasi-state companies.

5.7 Ensure the quality of corporate governance following global ethical standards

To improve corporate governance, ensure the inclusion of more qualified independent directors on the boards of directors and the exclusion of formal members of the board of directors. Strengthen the board of directors and its members' responsibility for implementing strategic objectives. To increase human resources, provide for the phased introduction of minimum qualification requirements for senior positions and the Board of Directors of quasi-state companies (for example, professional certification in corporate governance, FRM, CFA, ACCA). Maintaining a register of highly qualified independent directors and strengthening their role in making management decisions is necessary.

Review the relationship of the quasi-public sector with government bodies, considering OECD standards. As one of the measures in this direction, we propose the exclusion of civil servants from among the members of the Board of Directors. Implementing a set of proposals will create conditions for forming a highly efficient, compact, and transparent quasi-public sector.

6 Conclusion and policy propositions

We investigated the tools, methods, and algorithms for the administrative management of state assets, and qualitative analysis of the advantages and disadvantages of the Republic of Kazakhstan quasi-state companies. The new role and functions of the state in a globalizing world require a rethinking of the goals, institutions, and mechanisms of socio-economic state policy based on the introduction of balanced strategic planning, in which the main indicator is the achievement of sustainable development. The basic factor is the sphere of administrative and strategic management of quasi-state companies.

The quasi-public sector of the Republic of Kazakhstan has several shortcomings: the lack of a clear institutional framework for activities, the low financial efficiency of entities, and a high level of the state in the economy. In this regard, the main measures are proposed to reformat the management system of the quasi-public sector to focus it on the sustainable development of the economy as a whole:

- the transformation of the institutional structure and target orientation of quasi-state companies;
- development and approval of requirements taking into account the type of activity of quasi-state companies with a classification by profitability, objectives, strategic indicators, and funding procedures;
- control and financial discipline of quasi-state companies with a decrease in state participation;
- transparency to internal and external stakeholders;
- modernization of indicators for monitoring and evaluating quasi-state companies;

- an updated model of corporate governance in those organizations where it is applied.

As a result of the analysis of the tools introduced into the practice of leading transnational corporations, the main directions were identified in which it is advisable to take measures aimed at streamlining and optimizing the quasi-public sector in the Republic of Kazakhstan:

- clearly distinguish between three levels of quasi-state companies, depending on the degree of intervention in the operating activities of subsidiaries and affiliates, as well as on the significance of assets for the development of the country's economy;
- quasi-state companies should ensure the symbiosis of protecting the national interests of the public sector of the Republic of Kazakhstan and the corporate efficiency of the commercial sector;
- the creation of quasi-state companies is justified if their activities are not aimed at duplicating the functions of a state body but at increasing the synergistic effect of public-private partnerships;
- quasi-state companies should not narrow the competitive environment but provide a multiplier effect for the development of small and medium-sized businesses and related sectors of the economy.

This article examined the effectiveness of managing state assets of the quasi-public sector of the economy in the Republic of Kazakhstan. We proceed from the international theory and practice of applying the corporate foresight methodology using the strategic planning mechanism. However, the study is focused on the current situation in the Republic of Kazakhstan. Today, the economy of the Republic of Kazakhstan is faced with the task of getting out of the low dynamics of the development of the private sector and overcoming dependence on the primary industries. In connection with this circumstance, the development of the quasi-public sector is considered by the government of the republic as the most important factor in the development of the economy. However, the challenges in the economy and the social problems of the population of the regions of the Republic of Kazakhstan show that the current model of the quasi-public sector has several systemic shortcomings. Therefore, we have made recommendations for the development of the quasi-public sector refer to the Republic of Kazakhstan. The new institutional structure of quasi-state companies' activities should reflect a clear delineation of functions, processes, tasks, and criteria for evaluating their effectiveness. Improving the efficiency of quasi-state companies is directly related to their discipline in the financial system. Therefore, it is necessary to develop financial criteria and classification of indicators for the implementation of strategic and tactical tasks. It is impossible to reduce the share of state participation in the economy without

mechanisms to ensure transparency of activities and openness of quasi-state companies of the Republic of Kazakhstan. Therefore, the main principles should be information openness and ethical standards of public administration and the activities of the quasi-public sector.

Data availability statement

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding authors.

Author contributions

Conceptualization, RZ, MI, and AS; Methodology, RZ; Validation, AY, KG, MI, and GT; Formal analysis, IC; Investigation, RZ; Resources, RZ; Data curation, RZ and AS; Writing—original draft preparation, RZ; Writing—review and editing, RZ and AS; Visualization, AY; Supervision, RZ and AS; Project administration, RZ. All authors have read and agreed to the published version of the manuscript.

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