1. Introduction

Quasi-public companies are not state-owned, but they have been delegated some state powers for the distribution of budgetary funds [1]. In the Republic of Kazakhstan (RK), a number of large corporations of the energy complex, industry and transport represent QPS [2]. All these companies are strategically important for the state. The quasi-public sector takes an essential place in the life of society [3]. Therefore, QPS enterprises, along with government bodies, are involved in solving economic, environmental and social problems. The socially responsible behavior of QPS companies is extremely important for society. Companies that do not systematically deal with corporate social responsibility (CSR) run the risk of lagging behind global trends [4–6].

CSR is aimed at linking the philosophy of the company and its development strategy with society's expectations. Through the fulfillment of these expectations, CSR provides the company with long-term profitability and business viability. The importance of CSR for the company is also manifested in the event of a deterioration in the economic and political situation. The goal of modern business implementation of CSR principles is pragmatic. It consists in obtaining competitive advantages that are difficult to replicate and ensuring sustainable development. The CSR objectives are aimed at the medium and long terms [7]: reducing the risks of damage to the interested parties; maintaining business reputation, dividends from the image improvement; facilitation of communication with stakeholders through the policy of information openness, which may be important for marketing in the future.

However, such a generalized approach in relation to the quasi-public sector seems to be insufficient, since it is not related to the priorities of the QPS activity. Meanwhile, such priorities can be determined by the modern state problems formed by the quasi-public sector. Thus, the actual problems are the external debt of the quasi-public sector and GDP growth.
The research was conducted on a sample of quasi-public companies in Kazakhstan. There were taken five large QPS companies with open financial statements disclosing EBITDA (Earnings before interest, taxes, depreciation and amortization). EBITDA was calculated according to the standard methodology recommended by the SEC (Securities and Exchange Commission) [7]:

\[
\text{EBITDA} = \text{Operating profit} + \text{Depreciation of FA and IA},
\]

where FA means fixed assets; IA means intangible assets.

5. Results of studying the concept of corporate social responsibility management

5.1. Development of a model for assessing the corporate social responsibility management quality

In order to substantiate the hypothesis, official data on inflation and GDP growth rates in Kazakhstan were collected (Table 1).

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<thead>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Inflation, %</td>
<td>13.53</td>
<td>8.29</td>
<td>7.22</td>
<td>5.43</td>
<td>4.90</td>
<td>7.50</td>
<td>7.90</td>
<td></td>
</tr>
<tr>
<td>GDP change rate, %</td>
<td>–18.9</td>
<td>–25.3</td>
<td>16.1</td>
<td>7.0</td>
<td>6.5</td>
<td>–11.2</td>
<td>–1.6 (for the 1st quarter)</td>
<td></td>
</tr>
</tbody>
</table>

In order to make it possible to compare efficiency for companies of different sizes and obligations, it is proposed to adjust EBITDA by Net Debt. These indicators are usually presented in the annual reports of companies:

\[
\text{Net Debt/EBITDA} = \frac{\text{Net Debt}}{\text{EBITDA}}.
\]

The model for assessing the management principles (MP) of CSR was proposed by analogy with the social investment index [18]:

\[
\text{MP} = \left[ \frac{1}{m} \sum_{i=1}^{m} X_i \right] \times 100\%,
\]

where \( m \) is the number of indicators; \( X_i \) is a Boolean variable that takes the value 1 if the \( i \)-th feature is present and equals 0 if the \( i \)-th feature is absent.

The model for assessing the CSR management quality in the quasi-public sector has been compiled (Table 2).

The proposed model will make it possible to interpret particular indicators of CSR management in the profile of CSR management quality. Therefore, this model can be considered a model for interpreting the CSR management factors in a quasi-public sector company. In accordance with this model, the MP indicator was calculated for the quasi-public sector company "NAC "Kazatomprom" JSC over the past five years.
<table>
<thead>
<tr>
<th>CSR management principles</th>
<th>Metrics</th>
<th>Estimation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Verbal characterization of a Boolean variable</td>
</tr>
<tr>
<td>1. Compliance with the mission, strategy and policy of the company</td>
<td>1. 1. Fundamental strategic documents reflect the CSR principles</td>
<td>At least one principle</td>
</tr>
<tr>
<td></td>
<td>1. 2. Practice of examination of the CSR projects for compliance with the mission, strategy and policy of the company</td>
<td>Not a single principle</td>
</tr>
<tr>
<td>2. Involvement of directors in the CSR management processes</td>
<td>2. 1. Availability of KPIs or other mechanisms of material involvement of managers in the implementation of the CSR management principles</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>2. 2. Availability of mechanisms for non-material involvement of managers in the implementation of the CSR management principles</td>
<td>No</td>
</tr>
<tr>
<td>3. Taking into account the interests of stakeholders</td>
<td>3. 1. Availability of an approved passport of stakeholders</td>
<td>Full list</td>
</tr>
<tr>
<td></td>
<td>3. 2. Availability of approved methodology and algorithm for studying the interests of stakeholders</td>
<td>Availability</td>
</tr>
<tr>
<td></td>
<td>3. 3. Practice of examination of the CSR projects for taking into account the interests of stakeholders</td>
<td>Total absence or not for all the projects</td>
</tr>
<tr>
<td>4. Taking into account the regional specifics, interests of key socio-economic problems of the region</td>
<td>4. 1. Practice of accounting and analysis of regional problems</td>
<td>At least one project per year</td>
</tr>
<tr>
<td></td>
<td>4. 2. Availability of projects aimed at solving regional problems</td>
<td>Not a single project of this kind</td>
</tr>
<tr>
<td>5. Taking into account the industry specifics</td>
<td>5. 1. Annual CSR projects</td>
<td>At least one project per year (over the last 5 years)</td>
</tr>
<tr>
<td></td>
<td>5. 2. Availability of CSR persons in the job responsibilities of the company</td>
<td>Lack of special CSR projects in at least one year in the last 5 years</td>
</tr>
<tr>
<td>6. Distribution of responsibilities</td>
<td>6. 1. Availability of responsible for the CSR persons</td>
<td>Employee or department on staffing table</td>
</tr>
<tr>
<td></td>
<td>6. 2. Inclusion of the CSR principles in the job responsibilities of managers</td>
<td>At least one principle</td>
</tr>
<tr>
<td></td>
<td>6. 3. Practice of examination of the CSR projects for compliance with the mission, strategy and policy of the company</td>
<td>Not a single principle</td>
</tr>
<tr>
<td>7. Justification of the CSR activities and projects</td>
<td>7. 1. The practice of assessing the financial efficiency of all the CSR projects</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>7. 2. The practice of assessing the social effectiveness of all the CSR projects</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>7. 3. Risk assessment practice for all the CSR projects</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>7. 4. Practice of examination of the CSR projects for compliance with the mission, strategy and policy of the company</td>
<td>No</td>
</tr>
<tr>
<td>8. Measurability of the results and effects of the CSR activities</td>
<td>8. 1. Approved methodology for assessing the CSR projects’ results</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>8. 2. Approved and implemented algorithm for assessing the CSR projects’ results</td>
<td>No</td>
</tr>
<tr>
<td>9. Control over the CSR activities</td>
<td>9. 1. Availability of approved forms and templates for monitoring the CSR projects</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>9. 2. Availability of responsible people for the CSR control</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>9. 3. Practice of control of all the CSR projects</td>
<td>Yes</td>
</tr>
<tr>
<td>10. Timeliness</td>
<td>10. 1. Availability of a decision support system in the company with experts involvement</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>10. 2. Availability of a decision support system in the company based on the use of databases and data processing</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>10. 3. Availability of a decision support system in the company based on the modeling of actual data</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>10. 4. Availability of a decision support system in the company with experts involvement</td>
<td>No</td>
</tr>
<tr>
<td>11. Comparisons with competitors</td>
<td>11. 1. Practice of analysis and benchmarking of the CSR on a regular basis</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>11. 2. Practice of examination of the CSR projects for compliance with the mission, strategy and policy of the company</td>
<td>No</td>
</tr>
<tr>
<td>12. Formalization of the CSR processes</td>
<td>12. 1. Formalization level</td>
<td>At least the third</td>
</tr>
<tr>
<td></td>
<td>12. 2. Formalization level</td>
<td>Less than a third</td>
</tr>
<tr>
<td></td>
<td>12. 3. Formalization level</td>
<td>Not less than the fourth</td>
</tr>
<tr>
<td></td>
<td>12. 4. Formalization level</td>
<td>Less than a third</td>
</tr>
</tbody>
</table>
5.2. Determination of the management principles indicator in a sample of quasi-public companies

“NAC “Kazatomprom” JSC is the world’s largest producer of natural uranium with priority access to one of the world’s largest resource bases. The concept and program of sustainable development of the company have been developed in accordance with the legislation of the Republic of Kazakhstan, the Charter of “NAC “Kazatomprom” JSC, the Development Strategy of “NAC “Kazatomprom” JSC for the period of 2018–2028 and other internal documents. The priority areas of the Company’s social activities are the following: implementation of social programs, support of science and education, health care and culture, promotion of a healthy lifestyle, improvement of the professional level and improvement of working conditions for employees, ensuring safety and health at work, preserving the environment. The results of MP assessment for “NAC “Kazatomprom” JSC are presented in Table 3.

Table 3
The author’s management principles assessment model for “NAC “Kazatomprom” JSC

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>1.2</td>
<td>0.2</td>
<td>0.7</td>
<td>0.8</td>
<td>0.9</td>
<td>1.0</td>
<td>1.1</td>
<td>1.2</td>
</tr>
<tr>
<td>2.1</td>
<td>2.2</td>
<td>0.2</td>
<td>0.3</td>
<td>0.4</td>
<td>0.5</td>
<td>0.6</td>
<td>0.7</td>
<td>0.8</td>
</tr>
<tr>
<td>3.1</td>
<td>3.2</td>
<td>0.2</td>
<td>0.3</td>
<td>0.4</td>
<td>0.5</td>
<td>0.6</td>
<td>0.7</td>
<td>0.8</td>
</tr>
<tr>
<td>4.1</td>
<td>4.2</td>
<td>0.2</td>
<td>0.3</td>
<td>0.4</td>
<td>0.5</td>
<td>0.6</td>
<td>0.7</td>
<td>0.8</td>
</tr>
<tr>
<td>5.1</td>
<td>5.2</td>
<td>0.2</td>
<td>0.3</td>
<td>0.4</td>
<td>0.5</td>
<td>0.6</td>
<td>0.7</td>
<td>0.8</td>
</tr>
<tr>
<td>6.1</td>
<td>6.2</td>
<td>0.2</td>
<td>0.3</td>
<td>0.4</td>
<td>0.5</td>
<td>0.6</td>
<td>0.7</td>
<td>0.8</td>
</tr>
<tr>
<td>7.1</td>
<td>7.2</td>
<td>0.2</td>
<td>0.3</td>
<td>0.4</td>
<td>0.5</td>
<td>0.6</td>
<td>0.7</td>
<td>0.8</td>
</tr>
<tr>
<td>8.1</td>
<td>8.2</td>
<td>0.2</td>
<td>0.3</td>
<td>0.4</td>
<td>0.5</td>
<td>0.6</td>
<td>0.7</td>
<td>0.8</td>
</tr>
<tr>
<td>9.1</td>
<td>9.2</td>
<td>0.2</td>
<td>0.3</td>
<td>0.4</td>
<td>0.5</td>
<td>0.6</td>
<td>0.7</td>
<td>0.8</td>
</tr>
<tr>
<td>10.1</td>
<td>10.2</td>
<td>0.2</td>
<td>0.3</td>
<td>0.4</td>
<td>0.5</td>
<td>0.6</td>
<td>0.7</td>
<td>0.8</td>
</tr>
<tr>
<td>11.1</td>
<td>12.1</td>
<td>0.2</td>
<td>0.3</td>
<td>0.4</td>
<td>0.5</td>
<td>0.6</td>
<td>0.7</td>
<td>0.8</td>
</tr>
<tr>
<td>12.2</td>
<td></td>
<td>0.2</td>
<td>0.3</td>
<td>0.4</td>
<td>0.5</td>
<td>0.6</td>
<td>0.7</td>
<td>0.8</td>
</tr>
<tr>
<td>Total</td>
<td>0.2</td>
<td>0.3</td>
<td>0.4</td>
<td>0.5</td>
<td>0.6</td>
<td>0.7</td>
<td>0.8</td>
<td>0.9</td>
</tr>
</tbody>
</table>

In accordance with the proposed model, the maximum possible $MP_{max}=26$ units. Table 3 shows the actual MP values for 2017–2021. This table was filled according to the results of the analysis of the company’s reporting and additional interviews with the management. The last row of Table 3 also contains data on the gap between MP values and the ideal value.

It was found that the gap is decreasing every year (Fig. 1), the company in 2015–2021 actively developed CSR management. However, for some indicators (2.1, 2.2, 3.1, 3.2 and 10.3), no progress was observed during the period under review.

![Fig. 1. Dynamics of the gap in the management principles index for the quasi-public company “NAC “Kazatomprom” JSC](image)

Further, the authors studied the current concept of CSR management in the quasi-public company “NAC “Kazatomprom” JSC. This concept is meant to ensure the sustainable development of the company through the implementation of the CSR projects (built into the concept of sustainable development). The concept is formed in a directive design style, in which the guiding principles are compliance with the legislation of the Republic of Kazakhstan, ISO 26000 “Guidance on social responsibility” [19], development strategy, and the Sustainable Development Concept (Fig. 2).

Such a concept is common in the QPS of Kazakhstan. The authors believe that in CSR management, it is necessary to separate process and project management, since the CSR projects themselves can have independent significance, having little impact on the sustainable development of the company. In order to implement this idea, the values of the CSR management quality index (MP index) were determined for all quasi-public companies in the sample (Table 4).

Table 4
Results of management principles assessment for a sample of quasi-public companies in Republic of Kazakhstan

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>“NAC “Kazatomprom” JSC</td>
<td></td>
<td>6</td>
<td>6</td>
<td>7</td>
<td>10</td>
<td>10</td>
<td>18</td>
<td>20</td>
</tr>
<tr>
<td>“NC “KazMunay-Gas” JSC</td>
<td></td>
<td>4</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>15</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td>“Samruk-Energo” JSC</td>
<td></td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>15</td>
<td>18</td>
</tr>
<tr>
<td>“NC “Kazakhstan Temir Zholy” JSC</td>
<td></td>
<td>3</td>
<td>3</td>
<td>7</td>
<td>7</td>
<td>8</td>
<td>15</td>
<td>18</td>
</tr>
<tr>
<td>“Kazakhtelecom” JSC</td>
<td></td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>8</td>
<td>15</td>
<td>18</td>
</tr>
</tbody>
</table>

Note: NC – national company
Based on the data of open reporting, the indices of the financial efficiency of the quasi-public company were calculated (Net Debt/EBITDA) (Table 5). It was found that for “NAC “Kazatomprom” JSC, the highest value was –1.31 in 2017, the lowest –0.05 in 2020. For “NC “Kazakhstan Temir Zholy” JSC, this indicator was –0.42 in 2015, 0.06 in 2017, –0.35 in 2018, and –0.22 in 2019. For “NC “KazMunayGas” JSC, the reduction of the indicator is observed every year (from –3.41 to –0.15). The same is for “Samruk–Energo” JSC (from –5.12 to –2.88) and “Kazakhtelecom” JSC (from –0.47 to –0.06).

Further, to substantiate the hypothesis, a correlation analysis was carried out between the MP and Net Debt/EBITDA indices by year. The analysis was carried out using the Data Analysis tool included in Microsoft Excel. The results of the calculated Pearson correlation coefficient are shown in Table 6.

All the calculated values of the Pearson correlation coefficients are greater than zero. It means that the impact of the CSR management quality on the financial efficiency of a quasi-public sector company is direct, the better the quality of CSR management (according to the MP metric), the better the financial performance of the company. Thus, the research hypothesis is confirmed. The visualized concept is shown in Fig. 3.

The concept is a detailed version of the traditional management cycle: decision-making, organization of implementation, monitoring of implementation and feedback to adjust the decision or the implementation process. In this concept, the MP assessment model is built in as a model for the interpretation of CSR management factors.

![Visualized concept of the corporate social responsibility management in a quasi-public company](Fig. 3)

**Purpose:** improving the efficiency of the financial activities of a quasi-state company

**Objective:**
- Increase stakeholder satisfaction
- Minimize the risks of damage to stakeholders
- Maintaining a business reputation, receiving dividends from improving the image

**External environment:** opportunities, threats, external risks

**Algorithm for the formation of sustainable development of a quasi-public company in the environment of the CSR management principles**

**Internal environment:** strengths and weaknesses, internal risks

**Justification of the results and effectiveness of the CSR management**

**Model for the interpretation of the CSR management factors with the construction of a profile of the quality of CSR management in the company**

**Comparison of factors**

**Planning:** Making preliminary management decisions

**Evaluation of the effectiveness of preliminary management decisions**

**Making final management decisions**

**Performance**

**Control:** comparing the results with the goal, objectives and plan

![Table 5](Results of Net Debt/EBITDA calculation for a sample of quasi-public companies in Republic of Kazakhstan)

<table>
<thead>
<tr>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;NAC &quot;Kazatomprom&quot; JSC</td>
<td>0.54</td>
<td>0.25</td>
<td>0.05</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;NC &quot;KazMunayGas&quot; JSC</td>
<td>0.54</td>
<td>0.25</td>
<td>0.05</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;Samruk–Energo&quot; JSC</td>
<td>0.54</td>
<td>0.25</td>
<td>0.05</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;NC &quot;Kazakhstan Temir Zholy&quot; JSC</td>
<td>0.54</td>
<td>0.25</td>
<td>0.05</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;Kazakhtelecom&quot; JSC</td>
<td>0.54</td>
<td>0.25</td>
<td>0.05</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

![Table 6](Pearson correlation coefficient for MP and Net Debt/EBITDA indices by year)

<table>
<thead>
<tr>
<th>Year</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>0.262665</td>
<td>0.402449</td>
<td>0.607163</td>
<td>0.749207</td>
<td>0.896715</td>
<td>0.351426</td>
</tr>
<tr>
<td>2016</td>
<td>0.402449</td>
<td>0.607163</td>
<td>0.749207</td>
<td>0.896715</td>
<td>0.351426</td>
<td></td>
</tr>
<tr>
<td>2017</td>
<td>0.607163</td>
<td>0.749207</td>
<td>0.896715</td>
<td>0.351426</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td>0.749207</td>
<td>0.896715</td>
<td>0.351426</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2019</td>
<td>0.896715</td>
<td>0.351426</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2020</td>
<td>0.351426</td>
<td></td>
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</tbody>
</table>
6. Discussion of the results of studying the concept of corporate social responsibility management

The results of the literature review [18–20] show that the CSR management goal in a quasi-state company can be to maximize EBITDDA. The works [21–23] show the practical feasibility of interpreting the individual CSR parameters into metrics characterizing the CSR management principles implementation. This will allow applying the CSR analysis results in an organization.

With the help of the proposed model for assessing the quality of CSR management based on the principles of CSR management (Table 2), separate qualitative and quantitative data on the state of CSR were interpreted into a unified profile of the quality of CSR management. This will increase the information content and the applied value of the results of CSR analysis.

The proposed concept (Fig. 3) includes the above-considered algorithm for the formation of sustainable development of a quasi-public company in the environment of the CSR management principles (Table 4). As was proved above, the algorithm, isolated from the CSR management concept in the conditions of QPS companies, is not able to adequately assess the implementation of the CSR management principles. However, as part of the concept, this drawback is eliminated. Taking into account the environmental factors provided by the concept will allow adapting the methods and tools of CSR management to the current macroeconomic situation.

The biggest limitation in the use of this concept is that it is a version of the traditional management cycle. Advancing this study could lead to the development of the non-traditional management cycle. The adaptive capacity of the CSR management system will be provided in the context of changing macroeconomic factors.

7. Conclusions

1. It has been proven that the impact of the CSR management quality on the financial efficiency of a quasi-public sector company is more significant in conditions of low inflation and high GDP growth. A model for assessing the CSR management quality, based on the principles of CSR management was proposed. The essence of this model is the interpretation of individual indicators of CSR management in the quality profile of CSR management. The advantages of the proposed model in comparison with the existing one are the following: a systematic approach to CSR management is provided (not just as a set of projects and programs); the approach to assessing the CSR management quality is changing.

2. The concept of CSR management in the conditions of companies in the quasi-public sector was developed and visualized. The essence of this concept is that the MP approach to assessing the CSR management quality is changing. The use of the concept will make it possible to implement a systemic adaptive approach to CSR management and to ensure the conditions for achieving goals in a quasi-public sector company in the context of changing macroeconomic factors.

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