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## **Analysis of Capital Use in Listed Coal Companies belong Vietnam National Coal - Mineral Industries Holding Corporation Limited (TKV)**

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### **Abstract**

The coal industry is an important key economic sector of our country, ensuring fuel for important industrial production such as electricity, steel, cement, fertilizer...; attracts a large number of workers and brings significant profits to the country. However, currently the coal industry is in a very difficult situation, production and business results have recently decreased significantly. In that context,

organizing the economical and efficient use of capital is an objective necessity. The article uses secondary data from financial statements of listed coal companies to study the system of indicators to evaluate capital use. From the research results, the author proposes solutions to improve capital use efficiency at listed coal companies.

**Keywords:** Capital Use Situation, Improving Capital Use Efficiency, Listed Coal Companies, Vietnam National Coal - Mineral Industries Holding Corporation Limited (TKV)

### **1. Introduction**

Business capital is the monetary expression of assets. Whether or not capital is large or small, whether it increases or decreases, and whether it is allocated to each stage and stage appropriately or not will greatly affect the business results and financial situation of the enterprise, especially for listed coal companies.

In recent years, the coal industry has always been considered a key economic sector of the country and has made great contributions to the country's economic and social development. Coal companies are responsible for providing coal resources and ensuring national energy security. Besides, coal companies also make great contributions to the State budget and have created jobs for hundreds of thousands of workers. However, the huge need for capital requires listed coal companies to have solutions to effectively use capital. An enterprise's capital efficiency is reflected in its ability to create production value, revenue and capital profitability. For sustainable development, businesses constantly improve the efficiency of capital use. To do that, businesses need to evaluate the level and capacity of management and use of capital in the business, and see the causes and factors affecting the efficiency of capital use. On that basis, make appropriate decisions.

### **2. Theoretical basis**

Businesses may reduce the cost of capital mobilization and the volume of capital mobilized by using capital wisely and efficiently. Businesses may invest in both breadth and depth for their firm with the same amount of mobilized capital provided it is handled wisely. The following characteristics of a reasonable and efficient use of mobilized money are evident: The industries or assets in which the capital is invested; is capital's capacity to make profits rapid or sluggish in terms of its circulation or turnover?

The following factors are taken into account when analyzing the capital usage situation: Size and capital allocation structure variations; capital operational capacity; and capital profitability as measured by a set of measurement indicators.

#### *Criteria for analyzing fluctuations in scale and capital allocation structure*

Regarding fluctuations in scale and capital allocation structure, in the author's opinion, the following analytical indicators should be used: Indicators on the assets side of the balance sheet and proportion of each asset in total assets product.

In there:

$$\text{Proportion of each asset} = \frac{\text{Value of each asset}}{\text{Total asste}} \times 100$$

The database to calculate this indicator is the Balance Sheet. This indicator indicates the level of investment and use of each type of asset in the total assets of a listed coal company. However, when analyzing to accurately assess the cause, it is necessary to combine the comparison of density fluctuations with the comparison of absolute and relative fluctuations of each type of asset to have a more accurate conclusion about the appropriate level of distribution of assets, total assets. When analyzing capital usage in detail, the following main indicators are often considered: Cash and cash equivalents, Receivables, Inventory, Fixed assets.

For listed companies in the coal industry, these are also indicators that listed companies are interested in due to the industry's specific need to reserve cash at a certain time to serve mining and receivable debts highly, inventories are often large and fixed assets account for a high proportion.

*Criteria for analyzing capital operating capacity*

The operating capacity of capital shows whether the company's allocation, management, and use of capital is reasonable or not, suitable for the specific business lines or not, and whether the company is managing and using capital. Is it good or not? Therefore, according to the author, to analyze capital operating capacity, it is necessary to use the following financial indicators:

Criteria	Formula for calculation	Meaning
Number of business capital turnover cycles	Total revenue / Average of total assets	The higher this indicator shows that assets are moving quickly, leading to increased revenue and other income and vice versa
Number of turnovers of short-term capital	Total revenue / Average of short-term assets	The larger the index, the faster the short-term capital turnover rate is, the higher the efficiency of short-term capital use and vice versa.
Inventory turnover number	Cost of goods sold/ Average inventory value	The larger the index, the higher the efficiency of converting inventory into sales of the listed coal company and vice versa
Efficiency of using fixed assets	Net revenue / Average fixed assets	The larger this indicator shows that the use of fixed assets is bringing good results and vice versa

*Criteria for analyzing the profitability of capital*

Capital profitability is considered from many different angles depending on the purpose of analysis and data source. Capital profitability indicates the level of profit generated from the capital spent by a listed coal company. It is the combined result of the company's capacity, qualifications, operating results, and capital use. In the author's opinion, to analyze capital profitability for listed coal companies, it is necessary to use the following financial indicators:

questionnaires.

Data processing method: The author uses reliability analysis method (Reliability Analysis) through SPSS 26 software.

**4. Current status of the group of indicators analyzing capital use at listed coal companies belong the Vietnam national coal - mineral industries holding corporation limited**

*Introduction to Vietnam national coal – mineral industries holding corporation limited*

Vietnam national coal – mineral industries holding corporation limited (TKV) is a national industrial group of Vietnam, with the main field of coal and mineral exploitation. The Group was established in 2005, on the basis of Vietnam Coal Corporation and Vietnam Mineral Corporation. Throughout the development process, TKV has maintained its fundamental role, contributing to ensuring national energy security.

According to the production and business results report for the first 6 months of 2023, the Group's total revenue is estimated at 87,000 billion VND, reaching 51.6% of the year plan, equal to 107% compared to the same period in 2022. Of which, coal revenue reaching 56,500 billion VND, reaching 53.5% of the year plan, equal to 111.2% over the same period. Mineral production and consumption reached 11,400 billion VND, estimated at 48% of the year's plan and 93% over the same period; Electricity production and sales reached 5,860 billion VND, reaching 51% of the year's plan and equal to 99% over the same period. Mechanical production reached 1,560 billion VND, reaching 51% of the year's plan and equal to 95% over the same period. Production and supply of industrial explosive materials: 3,850 billion VND, reaching 50% of the year plan and equal to 123% over the same period...

In 2024, TKV strives to consume 50 million tons of coal. From the beginning of 2024 until now, closely following market demand, coal production units in the Group have focused their human resources to speed up production to meet coal consumption needs.

Criteria	Formula for calculation	Meaning
ROA	Profit after tax/ average assets	This indicator reflects the efficiency of asset use in listed companies, demonstrating the level of asset management and use.
ROE	Profit after tax / Average equity	The higher this indicator shows the greater efficiency in using equity capital of the Company and vice versa
BEP	EBIT/ Average business capital	The higher this indicator shows that the efficiency of capital use of listed coal companies is good, contributing to improving the ability of listed coal companies to attract investment capital.

**3. Research methods**

*Data collection methods:*

- Secondary data: Documents published on business results of listed coal companies belonging to the Vietnam Coal and Mineral Industry Group.
- Primary data: Data collected from surveys of administrators and investors according to random sample selection.

The research team sent surveys via email, Google form, and phone. From the research overview, the authors built a research model with 12 observed variables. According to Hair *et al* (2006), the minimum sample size is 5 times the number of observed variables, so the research team distributed 70 questionnaires, resulting in 65 valid

*Criteria for analyzing the profitability of capital*

Based on the documents that the author has collected; it is found that most companies use indicators that reflect the value of each asset on the balance sheet and the proportion of current assets and current assets on total assets to determine the value of each asset on the balance sheet. Analyze your company's capital usage situation. For companies in the fields of coal mining, processing, and trading, inventories often account for a large proportion due to the Group's output contracting and large investments in fixed assets to serve production and business activities. Therefore, it is necessary to detail the ratios of assets/current assets and fixed assets/current assets to help administrators evaluate and then have a reasonable investment policy. For companies in the field of commerce and services, current assets account for a large proportion, mainly receivables and inventory. This also accurately represents the nature of the companies' business activities. Through the value of these indicators, listed coal companies have evaluated their company's asset investment structure, thereby providing reasonable financial solutions.

**Table 1:** Criteria for analyzing fluctuations in scale and capital allocation structure (Descriptive Statistics)

	N	Mean	Std. Deviation
CC. Cash and cash equivalents	65	3.3285	.63581
IN. Inventories	65	3.6413	.58426
AR. Accounts receivable	65	3.1851	.57921
FA. Fixed assets	65	3.0146	.58019
Valid N (listwise)	65		

Source: Author's survey results

*Criteria for analyzing capital operating capacity*

According to documents of listed coal companies belong TKV, all companies conduct operational capacity analysis. The database for companies to analyze is based on the economic statements, business results reports and financial statements notes. The analysis period is usually 1 year. Listed coal companies belong TKV have used the following indicators: Inventory turnover and net revenue/total assets ratio to analyze operating capacity. Companies calculate the indicators for analysis and then compare the indicators that need to be analyzed this year with the previous year to evaluate the operating capacity of their company.

**Table 2:** Criteria for analyzing capital operating capacity (Descriptive Statistics)

	N	Mean	Std. Deviation
NL1. Inventory turnover number	65	3.5917	.6582
NL2. Number of business capital turnover cycles	65	3.0192	.6835
NL3. Number of turnover of short-term capital	65	3.1613	.5478
Valid N (listwise)	65		

Source: Author's survey results

To analyze the company's operating capacity, it shows that the analysis of the company's operating capacity has provided information about the ratio of net revenue/total assets and inventory turnover.

*Criteria for analyzing capital efficiency*

Researching documents of listed coal companies under the TKV found that companies such as TVD, TDN, MDC,

HLC, NBC, have used the following indicators: Profit after tax coefficient/Net revenue; Profit after tax ratio / Equity (ROE); Profit after tax ratio/Total assets (ROA); Profit ratio from business activities / Revenue. TC6 only calculates and analyzes two indicators: ROA and ROE.

**Table 3:** Criteria for analyzing capital efficiency (Descriptive Statistics)

	N	Mean	Std. Deviation
HQ. ROA	65	4.0217	.6962
HQ. ROE	65	3.6281	.6785
HQ. BEP	65	2.9413	.5478
Valid N (listwise)	65		

Source: Author's survey results

Thus, from the current situation of the system of indicators analyzing the profitability of capital at listed coal companies belong TKV, it shows that the analysis of profitability at companies has provided basic profit information. However, the naming of the indicators, the units of measurement of the indicators as well as the number of indicators for analysis between companies are still inconsistent and not specific to JSCs in the coal sector.

**4. Conclusion**

According to the above analysis of indicators for analyzing capital use, the author finds that the indicators that listed coal companies have used regularly are: Indicators reflecting assets on the balance sheet accounting, Ratio of current assets/assets, ratio of current assets/assets, number of short-term capital turnover, number of inventory turnover, revenue/total assets, ROA, ROE for analysis. However, the determination of ROA, Net Revenue/Total Assets, ROE is still erroneous, the value of Total Assets, Equity in the formula is still taken at the end of the period, this does not reflect the true nature. Of the indicator leads to inaccurate analysis results. Furthermore, the Net Revenue/Total Assets target should be changed to the number of business capital turnover cycles, because revenue in the period is obtained from sales activities, financial activities and other activities as assessed by experts.

In the process of production and business activities of listed coal companies belong TKV, the use of fixed assets, especially tangible fixed assets, is indispensable, especially for companies operating in the field of exploitation and processing. Coal processing and trading. Therefore, monitoring the scale and structure of fixed assets as well as the efficiency of using fixed assets is very necessary. Helps administrators set directions for optimal use of fixed assets, reasonable service, and meeting the goal of "Minimum costs for maximum benefits".

Currently, according to the Group's mechanism, the Group still contracts to listed coal companies under the Group, which reduces the companies' competitiveness in the market. As a result, the output of coal and mineral exploitation is stagnant, leading to commercial service companies whose services and products serving these companies are also affected, causing the inventory ratio to increase, as expected. Receivables increased. This leads to many consequences such as increased costs, capital stagnation, high prices, etc. Therefore, the author believes that it is necessary to add indicators such as: Ratio of inventory/ assets, ratio of inventory/ assets, short-term capital turnover period, inventory turnover period, basic

profitability coefficient of business capital, efficiency in using fixed assets.

The author's improvement orientation is summarized as follows:

**Table 4:** Completion of criteria for analyzing capital use at listed coal companies belong TKV

Criteria	Formula for calculation	Meaning
Ratio of Inventories/ current assets	Inventories/ current assets	This indicator shows how much capital is invested in inventory of the company
Ratio of Fixed assets / Long-terms assets	Fixed assets / Long-terms assets	This indicator displays the percentage of the company's total long-term asset investment that goes into fixed assets.
Efficient use of fixed assets	Revenue / average Fixed assets	Evaluate the effectiveness of investment in fixed assets
short-term capital turnover period	Time in period / Number of short-term capital turnover cycles	Shows the duration of a short-term capital round's rotation.
Inventory turnover period	Number of days in the period / Number of inventory turnover	Shows the time required to complete one inventory turnover.
BEP	EBIT / Average capital source	Shows the amount of profit made for every dollar of capital used in business and industry, independent of whence that capital came from.

**Source:** Author's recommendation for completion

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