METHODS OF IMPLEMENTING THE "USE EFFICIENCY INDEX" IN ASSESSING LONG-TERM ASSETS IN ENTERPRISES

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Abstract. This study developed a methodology for introducing the "Facility Efficiency Index" (FEI) in the valuation of long-term assets. Existing valuation methods do not fully reflect the economic efficiency of assets therefore, the use of the FEI index allows for a more accurate assessment of the economic benefit received directly relative to the residual value of assets on the balance sheet. The study calculated the FSI indicator in several enterprises and showed its importance in increasing production efficiency and increasing the reliability of reports. Based on the FSI index, recommendations were made to improve accounting policies, depreciation policies, and audit procedures.

Keywords: Accounting policies, long-term assets, utilization efficiency index (FSI), economic profit, residual value, valuation, FSI index, efficiency

Introduction

In today's globalized and competitive environment, the rational and efficient use of assets is of particular importance for the financial stability and efficient operation of enterprises. In particular, long-term assets - fixed assets, equipment, buildings and other tangible assets - are considered important resources that determine the productive capacity of the enterprise.

It is important to correctly assess the actual condition, level of utilization and economic efficiency of these important assets for the reliability of financial statements and the validity of management decisions. The valuation methods currently used, in particular, approaches based on historical cost, replacement cost and market value, do not fully reflect the real efficiency of asset use. This study proposes the introduction of the "Utilization Efficiency Index" (FSI) as a solution to this problem. This index allows you to accurately assess the economic benefit received from the residual value of the asset, thereby increasing the accuracy of reporting information and the efficiency of analysis. The purpose of the study is to determine real economic efficiency through the use of FSI in the valuation of long-term assets, to develop proposals for the formation of new methodological approaches for practice, and to improve accounting policies.

Analytical section

Today, the methods of valuing long-term assets in the accounting system are mainly based on historical, replacement and market values, which do not fully reflect the efficiency

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of the assets. The current approaches do not take into account the actual level of utilization of assets, the economic benefits derived from them, and their efficiency in a specific period. This limits the ability of reporting users - investors, auditors, managers - to obtain sufficient information.

Therefore, within the framework of my research, it was proposed to introduce the "Utilization Efficiency Index" (FSI) in the valuation of long-term assets. This indexation allows us to accurately assess the economic benefit received in relation to the residual value of assets. The proposed FSI indicator is calculated using the following formula:

$$FSI == \frac{\text{Direct economic benefits derived from an asset}}{\text{Asset's residual (balance) value}}$$

In here:

Economic profit is the direct income received as a result of the use of an asset (for example, revenue from the output of a machine or revenue from services). In order to calculate economic profit correctly, the costs associated with the asset are clearly distinguished from the income.

Residual value is the book value of the asset after depreciation (book value). It is determined in accordance with the valuation rules of the enterprise.

If the residual value of the equipment is 200 million soums and the direct revenue from the product it produces is 250 million soums:

$$FSI = \frac{250}{200} = 1.25$$

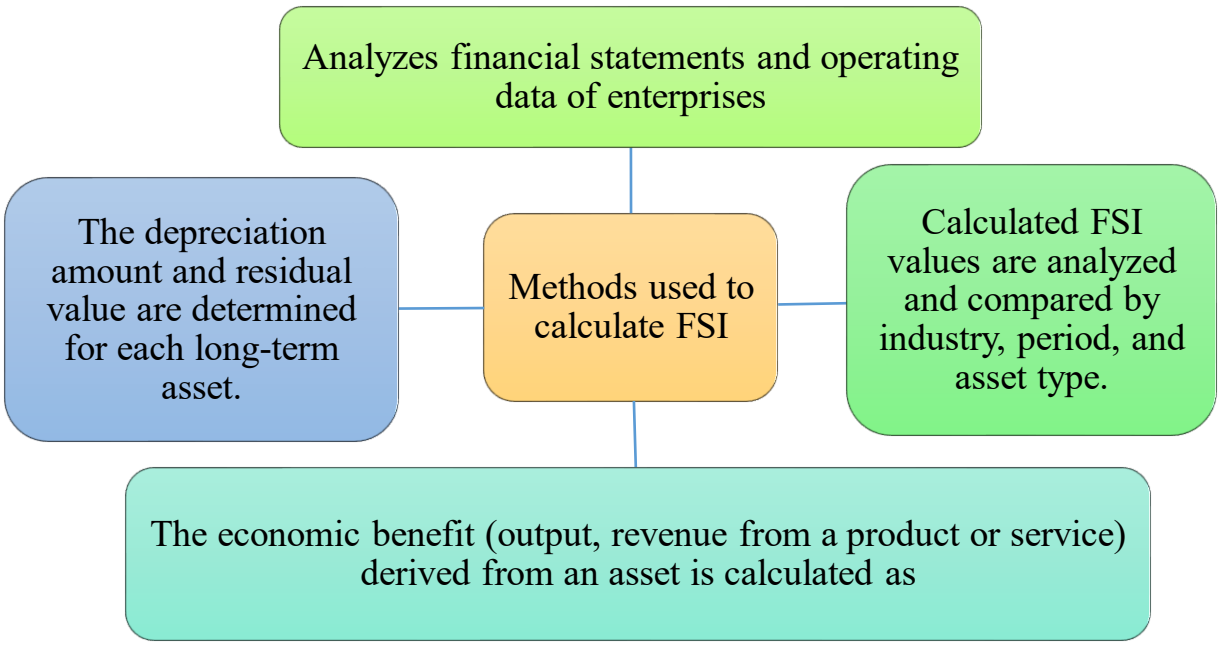

Figure 1. Methods used in calculating FSI

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This means that the equipment brings more benefit than its cost and has high efficiency.

In addition to existing valuation methods, a single economic indicator has been developed that reflects the real state of use of assets - the "Utilization Efficiency Index" (FSI). This index allows for a precise assessment of the economic benefit received in relation to the residual value of assets on the balance sheet.

The results of the study indicate that the introduction of FSI helps to reduce errors in the accounting policies of enterprises, improve depreciation policies and increase the efficiency of asset use. It also helps to improve economic efficiency, increase the reliability of reports and improve the audit process.

If FSI>1 - this indicates that the asset is being used with high efficiency.

If FSI = 1 - the asset is covering the cost of its expenditure.

If FSI < 1 - the asset is being used inefficiently or unprofitably.

As part of the study, the FSI index was calculated for long-term assets in several manufacturing enterprises. Based on this analysis, the following conclusions were drawn:

It was found that almost 30-40% of the assets in the account are being used with low efficiency (FSI < 1);

It was confirmed that some assets, although participating in production, do not bring much income;

The auditor and managers were given the opportunity to make a decision on whether to retain or replace the asset.

The introduction of the FSI indicator will bring the accounting policy into line with the real situation, and it will be possible to make evidence-based decisions on revising the depreciation policy, revaluing or writing off assets.

As a result of integrating the FSI indicator into accounting policies, the following results can be achieved:

increasing the efficiency of asset use;

reducing overspending due to incorrect valuation;

increasing the objectivity and reliability of reports;

reducing the likelihood of errors and fraud in the audit process.

The proposed FSI indicator is considered a practical and theoretical innovation in the fields of accounting (new methodology for assessing long-term assets), economic analysis (analysis of profit and efficiency) and audit (control over the efficient use of assets).

As part of the research, the "Utilization Efficiency Index" (FSI) was calculated for long-term assets at a number of manufacturing enterprises in Uzbekistan. Three enterprises were selected for the study, and in each of them, data on core assets for 2023 were collected (Table 1).

According to the calculated FSI indicator:

At the enterprise "HALOL ECO FOOD" LLC, machinery and equipment are used with high efficiency (FSI = 1.25), that is, these assets bring economic benefits exceeding their cost;

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Table 1

"Utilization Efficiency Index" (FSI) report on long-term assets in enterprises (2023)

Company name	Asset name	Period (year)	Residual value (million soums)	Economic profit (million soums)	FSI (Economic Profit / Residual Value)
"HALOL ECO FOOD" LLC	Machinery and equipment	2023	200	250	1.25
"MECHIC TECHNO" LLC	Transportation	2023	150	120	0.8
"NODIRA CHEVAR GAZLAMALARI" Enterprise	Device	2023	100	80	0.8

The assets of "MECHIC TECHNO" LLC and "NODIRA CHEVAR GAZLAMALARI" are low-yielding (FSI = 0.8), which indicates the presence of problems in their operation and the fact that the full potential of the assets is not being used. Based on the results of the research, proposals can be developed at the enterprises to modernize assets, increase efficiency, and get rid of unnecessary assets.

Based on the data presented in the table, the following characteristics of the FSI indicator were identified:

Assets with FSI>1 demonstrate high efficiency, which means that they bring high economic benefits to the enterprise. For example, machinery and equipment at "HALOL ECO FOOD" LLC bring more income than their cost.

Assets with FSI<1 indicate that they are being used unprofitably or inefficiently. In this case, it is appropriate to make decisions on the need to modernize assets, improve their technical condition, or abandon obsolete assets.

The fact that the FSI indicator is low in some enterprises indicates that there is an opportunity to increase the efficiency of asset use.

Based on the results of the analysis, managers and auditors can be given clear recommendations on revaluing assets, reviewing depreciation policies, and writing off unproductive assets.

Conclusion

The study analyzed the importance and effectiveness of introducing the "Utilization Efficiency Index" (FSI) in the valuation of long-term assets. It was confirmed that the calculated FSI indicators are an important tool in determining the real level of utilization of assets at enterprises.

Existing valuation methods are mainly based on the historical or market value of assets, but they do not fully reflect the economic efficiency of assets.

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The FSI index allows you to accurately assess the economic benefit received from assets relative to their balance sheet value, thereby generating valuable information for reporting users.

The FSI indicator makes it easier to identify unproductive assets and make decisions on their modernization or write-off.

The introduction of the FSI in enterprises increases the reliability and objectivity of the balance sheet, and it is possible to reduce errors in the audit process.

In addition to existing valuation methods, a single economic indicator (index) has been developed that reflects the actual use of assets. It allows assessing the economic efficiency obtained in relation to the balance sheet value of the asset.

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