Supply Chain: The Key to Solve the Problems of Assets Evaluation in SOEs

Shuai Qu, Shulong Cai, Nannan Xu

School of Accounting, Harbin Finance University, Harbin, China

Keywords: Supply chain, State-owned enterprises (SOEs), Asset evaluation

Abstract: In this paper, based on literature review, by summarizing the current situation of supply chain development and the characteristics of assets evaluation in state-owned enterprises (SOEs), it is found that the existing problems of assets evaluation in SOEs can be analyzed from the perspective of supply chain, and the countermeasures are put forward, because the integrated linkage evaluation of supply chain can divide the scope of evaluation objects more completely; the supply chain can provide more accurate data and supplementary explanations for the evaluation of value reference; and the inspection mechanism of asset evaluation can be constructed by utilizing the value liquidity, transferability and balance of supply chain.

1. Introduction

With the continuous progress of the deep reform of SOEs, asset evaluation has always been an important work, because the correct evaluation of state-owned assets is conducive to preventing the loss of state-owned assets and accelerating the pace of the deep reform of SOEs, but the procedures, methods and basis of asset evaluation still need to be improved and supplemented. Business production operation activities are often inseparable from supply chains, which are now moving towards digitalization and intelligence, so that the value generated in all segments can be precisely predicted and extrapolated. Then, whether and how to solve the existing problems in the asset evaluation in SOEs from the perspective of supply chain, and improve the quality and level of the asset evaluation in SOEs are the main questions to be solved in this paper.

2. Current situation of supply chain development

2.1 Integrated supply chain development

Supply chain is the extension of production and operation activities of an enterprise, which integrates the whole process of procurement, transportation, production, sales and distribution, and plays an indispensable role in the survival and development of an enterprise. The management of supply chain helps enterprises to open up cash flow, logistics and information flow, and forms suppliers, manufacturers, distributors, customers and service providers as an organic whole, which requires enterprises at each node to realize strategic cooperation, benefit coexistence and information sharing [1]. The supply chain links the core business to the stakeholders. A more comprehensive, complete and scientific conclusion can be obtained if the Internet of Things, financing, logistics and other fields are studied in the supply chain. Yanhui Li et al. argued that when revenue-cost-sharing (RCS) contracts are used as incentive mechanisms, supply chains can be fully coordinated when the thresholds for revenue and cost allocation rate are reasonably set, which provides an important management perspective for incentive and coordination strategies of retail Internet of Things [2]. Chong Zhang et al. determined the optimal channel strategy for supply chain under prepayment financing by comparing the best green decision and profit of green investment under single and dual channel strategies [3]. By using the characteristics of the supply chain to evaluate the assets of the enterprise in the supply chain, and dynamically studying the economic inflow brought by the assets to the enterprise, the value created by the assets to the enterprise can be better estimated.

  DOI: 10.25236/ecemis.2021.010

2.2 Digital and intelligent supply chain development

The rapid development of information technology and the extensive practice of artificial intelligence and big data technology have pushed the digitalization and intelligence into every link of the supply chain including research and development, design, production planning, procurement and sales [4]. Many enterprises immediately grasp this development trend. For example, Jingdong has joined hands with the book industry, logistics industry, medicine industry and service industry to build digital intelligent supply chain. Together with Tsinghua University, it has released three major trends of supply chain: digital intelligent, whole chain and socialization [5]. Through digital and intelligent intervention, cash flow and economic benefits generated by each node of the supply chain can be accurately calculated and predicted, which also provides a more accurate value basis for asset evaluation.

2.3 Cooperative development of supply chain, value chain and industrial chain

Value chain, supply chain and industrial chain are network links among various relationships and subjects, which are different from micro to macro. Value chain mainly refers to the capital circulation among various activities within enterprises; supply chain mainly refers to the exchange and transmission of resources between enterprises, and industrial chain is the relationship between industries, the three of which gradually permeate and integrate with each other [6]. The collaborative development of the three factors can often play a great role, such as improving agricultural quality efficiency and competitiveness by extending the grain industry chain, upgrading the value chain and building the supply chain [7]. Asset evaluation can be more comprehensive, systematic and accurate if this synergy is used to assess transactions in the supply chain, to observe cash flows in the value chain, and to evaluate asset movements in the industrial chain.

3. Feasibility of optimizing asset evaluation in SOEs from the perspective of supply chain

3.1 Meeting the characteristics of asset evaluation

In the supply chain, not only the realization of the value of an enterprise subject, but also the common interests of multiple enterprises should be considered comprehensively, which coincides with the characteristics of marketability and fairness of asset evaluation. By studying the asset evaluation of SOEs from the perspective of supply chain, it can study the fairness of the asset value of SOEs under the market competition mechanism, which is more conducive to realizing the marketability and fairness of asset evaluation.

3.2 Helping to better realize the function of asset evaluation

The assets of SOEs often need to realize their value in the supply chain, even in the measurement of the value of fixed assets, the economic benefits they bring to the enterprises are expected to flow into consideration. The asset evaluation based on this is more conducive to the correct assessment of the value and internal effectiveness of assets. In addition, under the market economy, countries have given managerial responsibilities in asset evaluation, and when conducting an asset evaluation, a comprehensive consideration of where an enterprise is located in the supply chain, the economic impact it carries, the social and economic value achieved, is more conducive to fulfilling this role.

3.3 Enterprise value often realized in the supply chain

As a link or several links in the supply chain, SOEs form capital movement and generate cash flow in the operation activities such as procurement, production, storage and sales, and operate and develop in the chains of cash flow, information flow and logistics to generate enterprise value. Asset valuation can directly obtain the basis of valuation value through the supply chain, including historical value, replacement cost, cash flow at each stage, and the position and role of the enterprise in the supply chain to evaluate the value of the enterprise.

4. Current situation of assets evaluation in SOEs

4.1 Asset evaluation procedures to be optimized

Generally, the assets in SOEs are evaluated based on the list of assets provided by the entrusting party, and reviewed according to the data and information of the entrusting party. Although they have been screened and supplemented, there may still be some problems such as wrong evaluation objects or unclear definition of evaluation scope caused by lack of comprehensive understanding of the enterprise, which lead to asset misstatement or inconsistent evaluation objects and evaluation purposes. If the enterprise is placed in the supply chain and the position and role of the enterprise are considered comprehensively, it is more beneficial to have a comprehensive and accurate understanding of the enterprise and to better evaluate the value of the enterprise.

4.2 Asset valuation methods to be refined

It is the key to choose the right method for the assets evaluation in SOEs. It is necessary to explain the reasons of the evaluation methods in detail. When choosing the two methods, the differences between the conclusions should be analyzed accurately, otherwise the evaluation results may be inaccurate or even seriously deviated. Yuan Zeming et al. (2021) analyzed the asset evaluation reports of 40 SOEs in the reform of mixed ownership, and found that there were some problems in the asset evaluation in the reform, such as single evaluation method, limitation in the selection mode of evaluation conclusion, insufficient disclosure of intangible assets, and false evaluation, etc. [8]. The supply chain can properly reflect the market conditions faced by enterprises and the required data acquired, which are also important factors in choosing evaluation methods.

4.3 Basis for asset evaluation to be refined

The Notice on Matters Relating to the Examination and Verification of the State-owned Assets Evaluation Report of Enterprises issued by the Property Rights Administration of the SASAC stipulates that the description part of the income method shall include a forecast sheet and description of income, cost, depreciation and amortization, working capital, capital expenditure, liabilities, etc. However, the necessary information is often absent in the evaluation conclusions of SOEs asset evaluation, which results in unclear basis of asset evaluation and incomplete conclusions. And for the absence of such critical information, there are missing data in addition to human factors, imprecise statistics due to insufficient estimates, and predictions, which can be compensated by the fact that asset values can be accurately reflected and predicted in a digital and intelligent supply chain.

5. Current situation of assets evaluation in SOEs

5.1 Asset evaluation procedures to be optimized

Generally, the assets in SOEs are evaluated based on the list of assets provided by the entrusting party, and reviewed according to the data and information of the entrusting party. Although they have been screened and supplemented, there may still be some problems such as wrong evaluation objects or unclear definition of evaluation scope caused by lack of comprehensive understanding of the enterprise, which lead to asset misstatement or inconsistent evaluation objects and evaluation purposes. If the enterprise is placed in the supply chain and the position and role of the enterprise are considered comprehensively, it is more beneficial to have a comprehensive and accurate understanding of the enterprise and to better evaluate the value of the enterprise.

5.2 Asset valuation methods to be refined

It is the key to choose the right method for the assets evaluation in SOEs. It is necessary to explain the reasons of the evaluation methods in detail. When choosing the two methods, the differences between the conclusions should be analyzed accurately, otherwise the evaluation results may be inaccurate or even seriously deviated. Yuan Zeming et al. (2021) analyzed the asset evaluation reports of 40 SOEs in the

reform of mixed ownership, and found that there were some problems in the asset evaluation in the reform, such as single evaluation method, limitation in the selection mode of evaluation conclusion, insufficient disclosure of intangible assets, and false evaluation, etc. [8]. The supply chain can properly reflect the market conditions faced by enterprises and the required data acquired, which are also important factors in choosing evaluation methods.

5.3 Basis for asset evaluation to be refined

The Notice on Matters Relating to the Examination and Verification of the State-owned Assets Evaluation Report of Enterprises issued by the Property Rights Administration of the SASAC stipulates that the description part of the income method shall include a forecast sheet and description of income, cost, depreciation and amortization, working capital, capital expenditure, liabilities, etc. However, the necessary information is often absent in the evaluation conclusions of SOEs asset evaluation, which results in unclear basis of asset evaluation and incomplete conclusions. And for the absence of such critical information, there are missing data in addition to human factors, imprecise statistics due to insufficient estimates, and predictions, which can be compensated by the fact that asset values can be accurately reflected and predicted in a digital and intelligent supply chain.

6. Suggestions on asset evaluation in SOEs in supply chain

6.1 Overall linkage evaluation of supply chain

Asset evaluation of SOEs should not only consider an enterprise itself, but also put the enterprise in the supply chain as a whole, so as to assess the enterprise value comprehensively from the position of the enterprise, the role it plays, the value chain it forms, etc, which will help prevent the omission of assets being evaluated, and also provide evidence to complement and support each other through asset interaction in the supply chain between different enterprises. If the machine equipment of manufacturing enterprise is evaluated, the enterprise can be considered as the production platform to comprehensively evaluate the expected cash flow generated by the machine, such as the anticipated sales volume, market prospect and the anticipated economic benefit inflow to the enterprise. Putting SOEs in the supply chain, and considering the overall value of the supply chain and the value that enterprises play as one of the links as a whole, is beneficial to find the focus of asset evaluation, and define the scope of evaluation. In addition, enterprises in different links of the supply chain should have different evaluation focuses. (See Fig. 1)

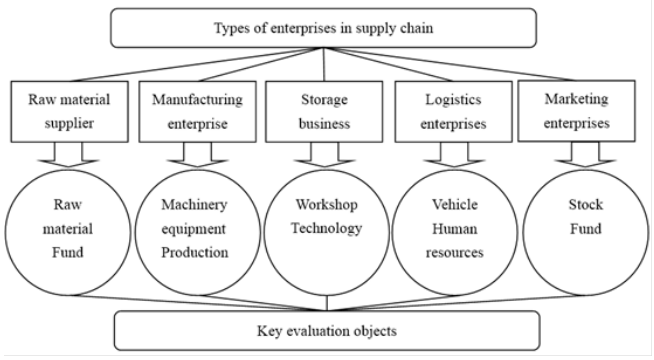

Figure 1 Schematic diagram of key evaluation objects corresponding to enterprises in supply chain

6.2 Supply chain providing reference for valuation

The supply chain integrates cash flow, information flow and logistics, develops together with the value chain and industrial chain, and tends to be intelligent and digital, so that each node of the supply chain and the asset value included in it can be accurately measured and predicted. As the asset evaluation of SOEs requires high accuracy of evaluation, and needs detailed supplement and explanation of supportive data and information, supply chain can provide high-quality reference and inspection basis for evaluation.

In the current assets appraisal, the appraisal object can be placed in the supply chain to obtain the appraisal value, such as cash on hand, various bank deposits and other monetary funds, short-term investment, receivables and prepayments, inventory and other current assets, etc., and its liquidity and volatility can be judged according to its circulation in the supply chain. The evaluation of fixed assets and intangible assets can obtain cash flow in the supply chain, such as machinery and equipment, resources, patents, etc., and can also play the role of the supply chain in the chain to reasonably select, calculate and analyze the discount rate and cash flow taking into account the expected income from assets. The overall asset value of an enterprise is not only reflected in the sum of individual assets, but also in the comprehensive strength of the enterprise in terms of product quality, profitability, operation capacity, which can be observed as a whole through the supply chain.

6.3 Construction of inspection mechanism for asset evaluation

Since the supply chain can test the results of asset evaluation very well, the inspection mechanism of asset evaluation is established by using the value liquidity, transmission and balance of the supply chain. Value is circulated and transferred between upstream enterprises and downstream enterprises, so as to achieve the balanced development of the entire supply chain. The sales price of upstream enterprises should be the purchase price of downstream enterprises, and there should be a balanced growth between the production capacity of upstream enterprises and the purchasing power of downstream enterprises. Such factors can be used as a scale to test the results of asset evaluation. At the same time, the upstream and downstream enterprises can be put together as a complete chain for the overall evaluation, to provide more basis and reference for enterprise evaluation. The value of an individual enterprise is less than the total value of the supply chain. When the same asset is tested, it can be compared and identified between the superior and inferior enterprises in the supply chain. (See Fig. 2)

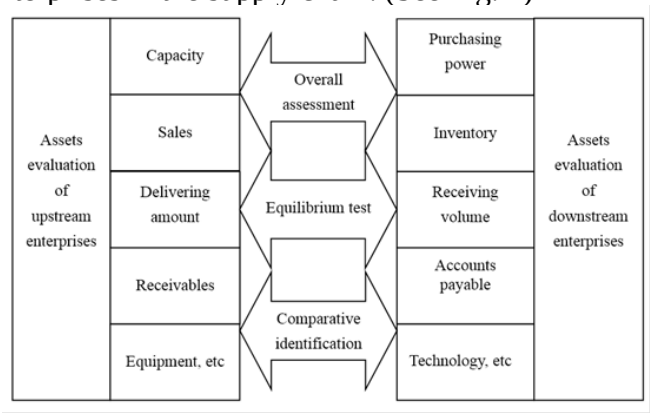

Figure 2 testing mechanism of assets evaluation of upstream and downstream enterprises

7. Conclusions

In the deepening reform of state-owned enterprises, it is necessary to evaluate the assets accurately to prevent the loss of state-owned assets. Reasonable definition of property rights is conducive to maintaining and increasing the value of state-owned assets. The problems existing in the state-owned assets evaluation, such as insufficient optimization of working procedures, inadequate evaluation methods and imperfect evaluation basis, can be solved by introducing the supply chain to some extent. The integrated linkage evaluation of the supply chain can more completely divide the scope of evaluation objects. The supply chain can provide more accurate data and supplementary explanation for value evaluation reference. In addition, the inspection mechanism of asset evaluation can be constructed by using the value liquidity, transferability and balance of the supply chain.

Acknowledgment

This paper was financially supported by Scientific Research Projects of Basic Scientific Research

Business Fees (Asset Evaluation in the Reform of Mixed Ownership in Heilongjiang Province No.: 2018-KYYWF-E018) and Scientific Research Projects of Basic Scientific Research Business Fees (Project name: Equity Financing Problems in Growing Firms from a Supply Chain Perspective, Project No.: 2019-KYYWF-004) in Undergraduate Universities of Heilongjiang Province in 2018.

References

[1] Yang Qiao, Zhang Dapeng. Integrated Analysis of Information Flow in Supply Chain Management. Modern Business, 2020 (36): 6-8.

[2] Yanhui Li, Shuai Deng, Ying Zhang, et al. Coordinating the retail supply chain with itemâ level RFID and excess inventory under a revenueâ costâ sharing contract. 2021, 28(3): 1505-1525.

[3] Chong Zhang, Yaxian Wang, Peng Ma. Optimal channel strategies in a supply chain under green manufacturer financial distress with advance payment discount. 2021, 28(3): 1347-1370.

[4] Qiu Fusheng. Application of Intelligent Supply Chain in Intelligent Manufacturing (Part I). Logistics & Material Handling, 2019, 24 (09): 110-116.

[5] Mao Xu. Jingdong Logistics cooperates with the book industry to build a digital and intelligent supply chain. China Publishing & Media Journal, 2020, (011).

[6] Du Guogong. Reflections on State-owned Enterprises Improving the Modernization Level of Value Chain, Supply Chain and Industrial Chain. Economic Information Daily, 2020, (007).

[7] Liu Yun. "Three-chain isomorphism" promotes transformation and upgrading of grain industry. Henan Daily, 2020, (006).

[8] Yuan Zeming, Hao Anqi and Wang Peilin. On Asset Assessment of State-owned Enterprises under Mixed Ownership Reform. Finance and Accounting Monthly, 2021: 1-7. http://kns.cnki.net/kcms/detail/42.1290.F.20201214.1009.004.html.