

Application of Standard Cost Method in International Business Control

Xi Chen *, Yiqing Zhao, Jiahui Tong, Shumei Xu

State Grid Energy Research Institute Co., Ltd. Beijing, China *chenxi0160@163.com

Abstract. The globalization trend is increasingly intensified with the deepening of the "One Belt and One Road" strategy, thereby new challenges are proposed for the control of multinational companies, wherein cost management is the most critical control point. The standard cost method is introduced in the cost management of overseas branches, thereby combining cost planning, control, calculation and analysis together, and improving the systematisms and scientific of cost management.

Keywords: standard cost method; overseas investment; control.

1. Introduction

25,500 China domestic investors had set up [1] 39.2 thousand OFDI enterprises in foreign countries (overseas)by the end of 2017, which are distributed in 189 countries (regions) around the world. Total assets of overseas enterprises reached 6 trillion us dollars at the end of the year. The cumulative net foreign direct investment reached \$1809.04 billion, wherein \$873.09 billion was equity investment, accounting for 48.3%. Income reinvestment was \$ 685.86 billion us dollars, accounting for 37.9%; debt instrument investment is \$250.09 billion, accounting for 13.8% [2]. Table 1 shows that traffic ranks the 3rd among countries (regions) in the world, and the stock jumps from the 6th place in 2016 to the 2nd place, and its proportion was increased by 0.7 percentage. Outward non-financial direct investment was \$ 1606.25 billion stock at the end of 2017. State-owned enterprises accounted for 49.1 percent, and non-state-owned enterprises accounted for 50.9 percent.

The current development trend of international business is constantly growing. The overseas investment business has the comprehensive characteristics of long investment time, multiple investment channels, slow return and effect, multiple influencing factors and complex decision-making of the management, etc. with national "One Belt and One Road" strategy, the intensification of globalization and the arrival of the new industrial revolution, thereby bringing pressure of the collectivization control to multinational companies. The development of accounting field has moved from business accounting to management accounting, thereby providing decision support, enhancing value creation ability, and providing management accounting with important practical goals and development direction.

The competitiveness of enterprises is mainly reflected in product innovation and cost leadership in current increasingly globalized world. Product innovation requires continuous innovation of enterprises, while cost leadership requires continuous improvement of cost management by enterprises. Cost management and budget control are mentioned in Basic Guidelines for Management Accounting in 2016 and Guidelines for Application of Management Accounting in 2018. Detailed application guidance for various cost management tools is given especially in Application Guidelines.

Table 1. Statistical result of China outward foreign direct investment in 2013-2017

Year	Flow			Stock	
	Amount	Global ranking	Year-over-year	Amount	Global ranking
2013	1078.4	3	17.6	5319.4	13
2014	1231.2	3	14.2	8826.4	8
2015	1456.7	2	18.3	10978.6	8
2016	1961.5	2	34.7	13573.9	6
2017	1582.9	3	-19.3	18090.4	2



2. Research Status

Standard cost method refers a cost management method that enterprises calculate and analyze cost variance, and reveal the cause of cost difference with the standard cost as the basis through comparing the standard cost and actual cost, thereby implementing cost control and evaluating management performance. [3]

Existing researches on standard cost mainly focus on the application of standard cost. Yu Shaoming (2008) studied standard cost control problems in procurement, materials, operations, quality control and other aspects according to the characteristics of the garment industry, and discussed the implementation of standard cost management by utilizing the management concept of leverage benchmark. Liu Qiang (2008) illustrated the application of standard cost management practices in central enterprises by taking Daqing Petroleum Administration Bureau as an example, and explained the purpose and significance of cost management, establishment and implementation, and issues of concern. Zheng Houqing and Zhang Aihong (2010) put forward that standard cost management is an important measure for financial intensive management and management standardization of power grid aiming at power grid enterprises. Actual operation of power grid is combined, the idea of standard cost management is proposed. The calculation and verification methods of power grid operation and maintenance cost standards and other operating cost standards are proposed. Luo Biao and Wang Qiong (2010) proposed a standard cost management system for the logistics industry, thereby controlling the whole process of logistics costs, including logistics cost accounting, decomposition and budget, and assessment is conducted according to the control performance of logistics costs, thereby achieving pre-event, in-process and post-event control and realizing the whole process logistics control. Tian Yuqin (2014) took Daqing Oilfield as an example to study standard cost management, who analyzed the research significance and relevant theories, and made a detailed analysis on standard cost formulation of service system in Daqing oilfield mining area. Che Lianfu, He Guangcheng and Zhang Shigong, etc. (2015) studied according to Chongqing Construction Industrial (Group) Co., Ltd as a case, it is a key enterprise of China Ordnance Group, enterprise time is combined for proposing sequence standard cost management tool in standard cost management. The cost consumed in all processing procedures in the manufacturing process is calculated. You Ran (2016) studied the combination of standard cost method and activity-based costing, their respective advantages are combined, cost control and management mode is constructed aiming at food and beverage enterprises, thereby providing accurate information of operation and management, and continuously reducing costs.

In addition, combination of standard cost method with ERP system and activity-based costing is also studied. Bai Li (2004) studied the cost management method in ERP, proposed the cost accounting and cost control method based on standard cost, and integrated the warehousing and inventory accounting business so as to realize the product cost calculation and analysis. Output and input of warehouse as well as inventory checking business are integrated, thereby realizing product cost calculation and analysis. The advance planning, in-process control and post-production process of the enterprises are controlled. Zhang Yurong (2009) studied the application of ERP in controlling product cost, thereby realizing standard cost calculation and difference analysis in the integration context. Standard cost of products is controlled with management accounting tools and system integration means. The difference report of SAP system standard is transformed into management accounting report. Xu Guozhuang (2015) analyzed the combination of cost control management tools and management information system promoted by ERP. It is proposed that ERP system may lead to huge consumption of manpower and material resources, and ERP cost control mode adapting to the development of enterprises is proposed. Wang Shuai (2016), Guo Minjie (2014), Liu Hongbo (2013), Zhai Xiaolian (2011), etc. studied the standard cost system based on operation by combining the cases of different industries.

Standard cost method corrects adverse differences according to the principle of exception management as an important tool of cost management, thereby improving work efficiency and continuously enhancing product cost. In addition, it can be used as a measure to improve the rationality and accuracy of budget management. It is conducive to improving the supervision and



governance chain of overseas business of the group company and enhancing the control strength and accuracy. However, risks of international business are proposed from the perspectives of power project, international engineering cost and international business classification, and corresponding countermeasures are put forward in existing research literature on cost management of international business. The role of standard cost in international business has not been studied, and there are no ideas and methods based on the construction of international business standard cost system.

3. Role of Standard Cost Method to International Business Control

International business is quite different from domestic business in terms of operating environment, investment priorities and operating risks. International business faces a more complex business environment with greater uncertainty in terms of business environment. International business investment is often accompanied by other goals such as aid and infrastructure construction, etc. apart from the profit-making goal in terms of investment priorities. Moreover, most funds come from foreign countries, thereby increasing liquidity pressure, and raising attention to foreign exchange risks. The economic, political and social factors of the host country cause the risk of potential loss in terms of operational risk. More importantly, the geographical distance between overseas branches and the parent company will reduce the transparency of international business information and weaken the control effect of the parent company. Therefore, the role of standard cost in international business control is shown as follows:

(1) The standard cost method is conducive to cost control.

Standard cost is based on the standard quantity and price of unit product. It is generally the cost based on the normal standard, which is regulated according to normal production efficiency, normal utilization rate of operating capacity and the normal price. Standard limits for quantity and price is set by standard cost, and it is required that expenditure is controlled during business process according to cost standard, which is conducive to the parent company's control over the cost level of overseas branches and can improve the parent company's budget management level. In addition, the setting of sales price often should be based on product cost. The application of standard cost method can make cost calculation more reasonable, thereby reducing the workload of cost accounting, and greatly improving the accuracy of sales price setting.

The standard cost method can simplify the accounting processing.

Accounting and cost calculation work of enterprises are characterized by multifarious and heavy workload in reality. Standard cost system is utilized. All inventories of enterprises can be recorded in accordance with standard cost, and the balance of cost difference account can be adjusted at the end of the period, thereby overcoming the lag of cost sharing and carry-over in time, greatly simplifying the cost accounting and daily accounting procedures, and improving the timeliness of cost information obtained by the parent company.

Standard cost can improve the accuracy of decision-making.

Standard cost method can provide more accurate and timely cost information, which can be used in the production and operation decisions of enterprises. Standard cost can provide necessary data and information for enterprise management decision makers, avoid the shortcomings of other traditional cost management methods, and provide scientific basis for enterprises to correctly calculate the variable cost of product units, thereby facilitating enterprise decision makers to make correct decisions. For example, it can be used as the basis for establishing a comprehensive budget, determining the price of products, reflecting the real value of daily inventory, etc. Therefore, standard cost becomes a reliable basis for enterprise managers to make correct business decisions.

Standard cost contributes to the implementation of responsible accounting.

Standard cost is the expected cost under the efficient production activities, which can be reached with great efforts. The difference between actual cost and standard cost can be taken as the basis for person in charge of examination and assessment. Meanwhile, it facilitates managers to track and carry out the difference responsibility, and it is beneficial for the implementation of responsibility



accounting in foreign subsidiaries, thereby improving the governance effect of parent company for overseas branches.

4. Application of Standard Cost Method in International Business

The main objective for enterprises to apply standard cost method is to reveal and analyze the difference between standard cost and actual cost through comparison of standard cost and actual cost, and correct adverse difference according to the principle of exception management, thereby improving work efficiency and product cost. The introduction of standard cost method can improve the scientificity of cost management, thereby strengthening the parent company's control over the financial information of overseas branches, and restraining the opportunistic behavior of overseas branches. The application of standard cost method in international business basically follows the implementation steps of standard cost method, but the specific implementation details also involve the communication between overseas institutions and the domestic parent company.

(1) Establishment of cost management center

The cost management center is the organizational guarantee of standard cost management. The "standard cost management committee" of the parent company, as the decision-making body of cost management, leads the management of standard cost. Cost standards are formulated, the advancement of standard cost system is checked, and discovered problems are solved by coordination. The overseas branch should define the cost management center according to the production process, process technology, cost expenditure attributes and other factors, thereby defining the responsibility scope of each cost management center, and conducting performance assessment in case of exceptional management.

(2) Determination of standard cost projects and formulation of standard cost

The development and implementation of standard cost belong to complex task that generally requires the cooperation of multiple departments, including technology, research and development, production, quality, procurement, human resources and finance. The development of standard cost is led by the financial department, and formulated jointly with relevant functional departments. The production and technical departments of the enterprise shall set dosage standards of various required materials, and the purchasing department shall set price standards. The standard cost shall be approved by the cost management decision-making body and "standard cost management committee" of the parent company after the financial department reviews and balances the standards, and the standard cost shall be finally determined. The formulator should take full account of the standard improvement brought by the existing production capacity of the enterprise, the change of future production conditions, the improvement of operating technology and possible cost improvement caused by the full play of employees' subjective initiative during standard cost formulation.

Standard cost should be based on normal standards, and most people can achieve through efforts. The standard cost should not be too high, thereby enthusiasm of employees can not sapped. The cost should not be too low, thereby losing the significance of cost management. Meanwhile, enterprises should regularly review and maintain standard cost to maintain the advanced and stable standard cost.

(3) Collection of actual cost information for variance analysis

The difference between actual cost and standard cost is called cost variances. Cost differences reflect the deviation degree of actual cost from the standard cost (cost variance = actual cost- standard cost), surplus (cost variance is negative) usually indicates that operation result is better than expected value, deficit (cost variance is positive) usually indicates that operating results are not as good as expected value. The surplus and deficit with large amount or wider influence scope should be analyzed. Generally speaking, the surplus is considered to be the result of economy, but there are hidden dangers sometimes. For example, the difference in the price of raw materials refers to surplus, there is a large deficit in dosage difference. The dosage deficit may be caused by the production department's consumption exceeding the standard, or it may be caused by the purchasing department's purchase of inferior raw materials, thereby resulting in the production department's excessive waste of raw materials. Therefore, we should be careful about surpluses and deficits.



(4) Exception control

Standard cost and variance analysis are beneficial for determining organizational performance, and these tools can help managers to distinguish "stories behind stories," namely business conditions hidden behind cost and profit data provided in the report. Standard cost, budget, and variance are also used to evaluate individual and departmental performance and standards or individual performance connected with budget. They are often used to determine raises, year-end bonuses, and promotions. When standard cost variance affects an employee's compensation structure, they produce profound impact on behavior. The calculation analysis work of standard cost difference shall be conducted by the financial department and relevant functional departments. The causes of the cost of deviation are analyzed on the basis of regularly collecting cost management related data of all responsible units, thereby analyzing the causes of cost deviation, discovering the responsible department and corresponding links for the difference between actual cost and standard cost, proposing improvement measures and suggestions, and enhancing the recognition of producer and manager on cost management importance.

5. Conclusion

Standard cost method can timely feed back the differences in the nature of various cost projects, which is conducive to assessing the performance of relevant departments and personnel. The formulation of standard cost and the information of its differences and motivations can make the preparation of enterprise budget more scientific and feasible. It is contribute to the operation decision-making of enterprises. However, the "guidance on the application of management accounting" (2018) issued by Ministry of Finance points out that the standard cost method is generally applicable to enterprises with relatively stable products and production conditions, or high degree of standardization of production processes and processes. Therefore, international business of some industries are not suitable for the implementation of standard cost. The principle of cost effectiveness should be comprehensively considered, and it is also necessary to pay attention to the frequent update of cost standard according to frequent market price fluctuations, and the dynamic update of cost standard can be implemented for ensuring the effect of cost control.

Acknowledgments

This work was financially supported by Science and Technology Projects of State Grid Co., Ltd. "Research on Comprehensive Budget Management System of International Business under the Guidance of Internationalization Strategy."

References

- [1]. "State Ownership Effect on Firms" FDI Ownership Decisions under Institutional Pressure: A Study of Chinese Outward Investing Firms. [J]. Cui, L, Jiang, F. Journal of International Business Studies. 2012.
- [2]. Adoption of an organizational practice by subsidiaries of multinational corporations: institutional and relational effects[J]. T Kostova, K Roth. The Academy of Management Journal. 2002.
- [3]. CEO tenure and ownership mode choice of Chinese firms: The moderating roles of managerial discretion[J]. Qunyong Xie. International Business Review. 2014.
- [4]. Comparing board-level governance at MNEs and local firms: lessons from Turkey[J]. Guven Alpay, Muzaffer Bodur, Hakan Ener, Cem Talug. Journal of International Management. 2004 (1).



[5]. Comparing board-level governance at MNEs and local firms: Lessons from Turkey[J]. Alpay, Guven, Bodur, Muzaffer, Ener, Hakan, and Talug, Cem. Journal of International Management. 2005.