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Value Chain Analysis and Application in Transfer Pricing

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ABSTRACT
With the globalization and expansion of business of multinational enterprises, transfer pricing has become a key issue in the field of international taxation. This paper discusses the theory and practice of value chain analysis in transfer pricing, and takes the transfer pricing case of Coca-Cola Company as a typical case to analyze the application and importance of value chain analysis in it. It is found that value chain analysis can help to accurately determine the reasonableness of profit distribution of multinational enterprises, and effectively prevent the problems of tax base erosion and profit shifting. However, it also faces many challenges in the process of its application, and requires the cooperation of all parties to improve the transfer pricing management system and safeguard the tax rights and interests of all countries.

KEYWORDS
Transfer pricing; Value chain analysis; Coca-Cola case; International taxation

1 Introduction

Under the wave of economic globalization, multinational enterprises (MNEs) achieve optimal allocation of resources and maximization of profits through complex global layouts and associated transactions. Transfer pricing, as a way of pricing internal transactions of multinational enterprises, occupies an important position in their business strategies. However, unreasonable transfer pricing may lead to improper transfer of profits among different countries (regions), triggering base erosion and profit shifting (BEPS) problems, and seriously harming the tax rights and interests of all countries.

Value chain analysis, as a systematic analysis method, is gradually applied in transfer pricing management. It starts from the whole process of enterprise value creation, comprehensively considers the functions, risks and assets of each link of multinational enterprises, and provides a more comprehensive and in-depth perspective for judging the reasonableness of transfer pricing. As a globally recognized multinational enterprise, the transfer pricing case of Coca-Cola Company is typical and representative. An in-depth study of the application of value chain analysis in the Coca-Cola case is of great theoretical and practical significance for understanding and improving transfer pricing management.

2 Theoretical foundations of transfer pricing and value chain analysis

2.1 Concepts and motivations of transfer pricing

Transfer pricing refers to the prices determined in the transaction activities such as the sale of goods, provision of labor services and transfer of intangible assets between associated enterprises. Multinational enterprises have various motives for transfer pricing. On the one hand, reasonable transfer pricing can optimize the allocation of resources within the group and achieve synergy and economies of scale; on the other hand, some multinational enterprises may take advantage of the differences in the tax regimes of different countries (regions) to transfer their profits to low-tax-burden regions through unreasonable transfer pricing in order to reduce the overall tax burden and obtain tax benefits. This kind of tax avoidance behavior not only destroys the principle of tax equity, but also negatively affects the tax revenue of each country. According to OECD's Transfer Pricing Guidelines, the five transfer pricing methods authorized by OECD include the comparable uncontrolled price method, the re-sale price method, the cost-plus method, the net profit on transaction method and the profit split method.

2.2 Origin and development of value chain analysis

Value chain analysis originated from the value chain theory proposed by Michael Porter in 1985. According to Porter, the production and operation activities of an enterprise can be regarded as a collection of design, production, marketing, delivery and various activities that play a supporting role to the product, which are interrelated and together constitute the value chain of the enterprise. Each enterprise occupies a certain position in its specific value chain and realizes the creation and transmission of value through collaboration with upstream and downstream enterprises.

With the development of economic globalization, the concept of value chain has gradually been expanded from within enterprises to a global scale. Bruce Coggett, a professor at the University of Pennsylvania in the United States, proposed that the value chain is an effective combination of technology, labour, raw material inputs, etc., emphasizing the relationship between vertical separation of the value chain and global spatial reconfiguration. Griffin, a professor at Duke University in the United States, further linked the concept of value chains directly to the global organization of industries, proposing the concepts of global commodity chains and global value chains. Global value chains can be summarized as a global, cross-firm network organization linking the processes of production, distribution, recycling and disposal in order to realize the value of goods or services, involving the entire process from the procurement and transportation of raw materials, the production and distribution of semi-finished and finished products to final consumption and recycling and disposal.

In the area of transfer pricing, the Organization for Economic Cooperation and Development (OECD) actively advocates value chain analysis as an important method for solving the problem of mismatch between profit distribution and value creation of multinational enterprises. Value chain analysis is based on the concept that “profit distribution should be consistent with value creation”, and analyzes the value creation of multinational corporations in the overall chain from “R&D - production - sales”, so as to Determine the reasonable profit to be obtained by each trading entity.

2.3 Framework and methodology for value chain analysis

The framework for value chain analysis typically includes the following key steps:

(1) Identify the key functions performed, significant risks assumed and important assets used by each member entity of the value chain. After completing a comprehensive analysis of the functions performed, risks assumed and assets used by each member entity of the Group's global value chain, and taking into account the Group's key value drivers, the key functions performed, significant risks assumed and significant assets used by each member entity are identified. The regular functions, regular risks and non-material assets performed by an enterprise are often only able to generate regular profits for the Group, while the key functions, major risks and material assets performed are directly linked to the Group's value drivers and are key to the creation of core value.

(2) Recognize the main value contributions of member entities in global value chains. By mapping the key functions performed, significant risks assumed and important assets utilized by each member entity of a GVC to each value creation element, the main value contribution of each member entity to each value creation element is determined, as well as whether its value contribution is sustainable. This step helps to accurately determine the position and role of each member entity in the value chain and provides a basis for the rational allocation of profits.

(3) Recognize the existence of other special factors. In recognizing the main value contribution of each member entity in the global value chain, in addition to considering the group's own value creation factors, the contribution of intangible assets, geographical special advantages and other factors to value creation should also be fully considered. Intangible assets, such as patents, trademarks and technical know-how, are often the core elements of value creation for enterprises and can bring them excess profits; special geographical advantages, such as unique geographical locations, abundant natural resources and favorable tax policies, may also have a significant impact on value creation.

In terms of specific analysis methods, value chain analysis is usually carried out in combination with a variety of methods, such as functional analysis, risk analysis and asset analysis. By analyzing in detail the various functions performed by the enterprise in the value chain, it is possible to determine its complexity and importance; by assessing the type and degree of risk borne by the enterprise, it is possible to determine the risk compensation it should receive; and by categorizing and evaluating the assets used by the enterprise, it is possible to understand their contribution to value creation. At the same time, data analysis tools can also be used to quantitatively analyze an enterprise's financial and business data, providing a more objective and accurate basis for value chain analysis.

3 A Case study of transfer pricing at Coca-Cola

3.1 Coca-Cola's tax planning structure

The Coca-Cola Company has developed a complex tax planning structure on a global basis. Under the Coca-Cola Franchise System, bottlers moved from point-of-supply management to independent third parties, and the number of points of supply was drastically reduced and concentrated in a few countries, such as Ireland. Ireland is an important profit center for Coca-Cola due to its low income tax rate (only 12.5%).

In line with this restructuring, The Coca-Cola Company set up 60 service companies outside the country. These service companies performed functions such as marketing and liaison with bottlers, and had a large number of cross-border related transactions with The Coca-Cola Company. By designing the functions, assets, and risks of the service companies, The Coca-Cola Company attempts to minimize their profits and thereby achieve a lower overall tax burden. Specifically, the service company performs advertising and marketing functions with a local third-party agency and is responsible for liaising with local bottlers, and the expenditures it incurs are paid for by the U.S. headquarters for its services. In this way, Coca-Cola shifts profits from high-tax-burden areas to low-tax-burden areas for the purpose of tax avoidance.

3.2 Case interpretation based on value chain analysis

From the perspective of value chain analysis, there is an obvious mismatch between profit distribution and value creation in Coca-Cola. In Coca-Cola's global value chain, core value creation activities such as R&D and branding are mainly done by TCCC in the U.S. TCCC owns key intangible assets such as Coca-Cola's trademarks, patents, and secret formulas, which are the core source of Coca-Cola's brand value, and play a decisive role in the company's market competitiveness and profitability.

In contrast, "point-of-supply" plants, which mainly perform manufacturing and distribution functions, play a role in the supply of the product, but in the context of the entire value chain, they perform relatively routine functions and take limited risks. However, in terms of actual profit sharing, 'supply-side' plants account for most of the profits from concentrate production and supply, with returns on supply-side assets as high as 215% and 182% in Ireland and Brazil, respectively. This pattern of profit allocation is grossly inconsistent with actual value creation in each segment, suggesting that Coca-Cola may have shifted profits away from value creation to "supply points" in low-tax areas through unreasonable transfer pricing.

In addition, when analyzing the value chain of the Coca-Cola Company, it is also necessary to consider the impact of geographical special advantages and intangible assets. Ireland's low tax policy provides Coca-Cola with room for tax planning, but this territorial special advantage does not justify its unreasonable profit allocation. Meanwhile, Coca-Cola claimed that the "Supply Point" factory possessed marketing intangible assets, but these so-called intangible assets lacked sufficient support in terms of legal form and economic substance, and TCCC had the right to unilaterally terminate the contract with the "Supply Point" factory at any time, and in practice it did. TCCC has the right to unilaterally terminate the contract with the factory at any time, and has indeed exercised its right to terminate the contract in practice, without the factory receiving any financial compensation; the factory at the point of supply shares the marketing expenses on its books, but the reason for sharing is unclear, and even if the marketing expenses are capitalized, the value is enhanced by the TCCC's products, not the factory's products. Therefore, from the perspective of value chain analysis, profits should be reallocated to TCCC, which really creates value, in order to match profit allocation with value creation.

4 Advantages and challenges of applying value chain analysis in transfer pricing

4.1 Application Advantages

(1) Comprehensive insight into the value creation process of enterprises: Value chain analysis can help tax authorities and enterprises to grasp the business process and value creation process of multinational enterprises as a whole, and avoid looking at related transactions in isolation. By clarifying the enterprises in the value chain and defining the functions and value creation of each enterprise, it can more accurately judge the reasonableness of profit distribution, prevent enterprises from utilizing transfer pricing for tax avoidance, and safeguard the tax rights and interests of each country.

(2) Optimizing the choice of transfer pricing methodology: Value chain analysis provides a more comprehensive perspective when determining transfer pricing methodology. It helps tax officials to fully understand the group's transfer pricing policy and profit pooling pattern, so as to determine who should be the tested party and to choose the most appropriate transfer pricing method. At the same time, it also allows the results of adjustments under the net trading profit method to be tested to avoid extreme scenarios.

(3) Clarify the direction of anti-avoidance investigation: value chain analysis provides a clear idea and direction of data collection for anti-avoidance investigation. Through the analysis of each link in the value chain, it can clarify the focus of investigation and the direction of adjustment, and improve the efficiency and accuracy of anti-avoidance work. For example, in the Coca-Cola case, the value chain analysis can identify the abnormal situation of high profits of the factory at the "supply point", and then investigate the source and reasonableness of the profits in-depth, so as to provide a strong basis for the adjustment of the tax authorities.

(4) Promote the optimization of internal management: For multinational enterprises, the rational use of value chain analysis can optimize the allocation of internal resources, ensure that the profit distribution of each business segment matches its value contribution, and enhance the overall competitiveness of the enterprise. By clarifying the positioning and roles of each department and subsidiary in the value chain, enterprises can better coordinate their internal relationships, improve operational efficiency and realize sustainable development.

4.2 Application Challenges

(1) Difficulties in data acquisition and quality: Value chain analysis is extremely demanding on data, and it is necessary to obtain detailed information on the global business of multinational enterprises, including the financial data, business processes, functional descriptions, and risk-taking situations of each affiliated enterprise. However, in practice, there are many difficulties in data acquisition. On the one hand, multinational enterprises may be reluctant to provide complete and accurate data for reasons such as protection of commercial secrets; on the other hand, there are differences in accounting systems and tax regulations in different countries (regions), making it difficult to ensure the comparability and consistency of the data, which poses a challenge to the accuracy and reliability of value chain analysis.

(2) Complexity and subjectivity of the analysis method: Value chain analysis involves professional knowledge in many fields, such as finance, taxation, economics, management, etc., and the analysis process is complicated. When calculating value chain profits and judging whether profit distribution matches value creation, there is a lack of uniform and clear standards and methods, and different analysts may come to different conclusions, with a certain degree of subjectivity. For example, in determining the functions, risks and asset contributions of each enterprise in the value chain, a great deal of subjective judgment and qualitative analysis is often required, which increases the uncertainty of the analysis results.

(3) Dynamic changes in the business of multinational enterprises: With economic globalization and the rapid development of science and technology, the business of multinational enterprises continues to innovate and change, and the value chain is dynamically adjusted accordingly. New business models, technological innovation and market competition have made the value creation process of multinational enterprises more complex and diversified. This requires value chain analysis to be able to adapt to these changes in a timely manner, but current analytical methods and tools lag behind in responding to dynamically changing business.

(4) Difficulty in international tax coordination: transfer pricing involves the tax interests of many countries (regions), and there are differences in the tax policies and regulatory requirements of different countries (regions), which brings difficulties to the international coordination of value chain analysis. In the global value chain of multinational enterprises, the links are distributed in different countries (regions), and the information exchange and collaboration mechanism between tax authorities is not yet sound, which is prone to the problem of double taxation or tax collection and management loopholes. For example, in the Coca-Cola case, the United States and Ireland disagreed on the determination and taxation of the profits of the factory at the “point of supply”, and how to coordinate such international tax disputes is an important challenge in the application of value chain analysis.

5 Conclusions and recommendations

Value chain analysis, as an advanced analysis method, has important application value in transfer pricing management. Through the in-depth analysis of the transfer pricing case of Coca-Cola Company, it can be seen that the value chain analysis can help us understand the value creation process and profit distribution mechanism of multinational enterprises in a more comprehensive and in-depth manner, identify unreasonable transfer pricing behaviors effectively, and provide powerful support for the supervision of the tax authorities and the decision-making of enterprises.

However, in practical application, value chain analysis still faces many challenges and requires the joint efforts of governments, enterprises and the international community. By improving policies and regulations, strengthening information management and technical support, upgrading the quality of professionals, strengthening international tax cooperation and paying attention to emerging business models, we can continuously deepen the application of value chain analysis in transfer pricing, realize the reasonable distribution of profits of multinational enterprises, safeguard the tax rights and interests of all countries, and promote the healthy and fair development of the global economy. In the future, with the deepening of economic globalization and the acceleration of technological innovation, value chain analysis will play an even more important role in the field of transfer pricing, and we should continue to pay attention to its development dynamics, and continue to explore and innovate, so as to adapt to the increasingly complex international tax environment.

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