

The Application of Income Method in the Valuation of Trademark Assets

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Abstract: on the Basis of Summarizing the Methods of Valuating Trademark Assets, This Paper Carries out a Case Study and Values the Trademark Assets Held by a Investment Company through the Income Method. the Valuation Conclusion is Drawn through Analyzing Four Important Factors: the Amount of Income, the Period of Income, the Discount Rate and the Share Rate of Trademark. the Paper Aims to Help Companies Determine the Elements of Trademark Asset Valuation, to Improve the Accuracy of Valuation, and to Promote the Asset Valuation Industry to Play Its Role in Ensuring the Smooth Operation of the Economy.

1. Introduction

As an intangible asset, trademark plays a direct role in the sales process and can create value for the enterprise. Trademarks have good economic features; financial institutions can take them as the collateral. However, in the accounting process, financial personnel have to be prudent; the cost of intangible assets cannot be measured. Enterprise managers do not fully understand the value of trademarks. When carrying out relevant economic activities, they often disagree with relevant parties over the value of trademarks. Therefore, it is necessary for the asset valuation institution to intervene and carry out professional value assessment; the opinions on the value they provide can be used to guide relevant economic behaviours.

2. Analysis of Trademark Right Valuation Methods

2.1 Cost Method

The cost method evaluates the value of a trademark through calculating the monetary cost of redesigning a trademark identical or similar to the evaluated one under the existing market environment and technical conditions. It carries out based on the enterprise's investment on the trademark, and collects the costs of trademark designing and consulting, legal protection fees such as the application for registration and litigation, as well as advertising and other marketing expenses.

2.2 Market Method

The market method estimates the value of trademark rights through selecting several trademarks that are comparable with the appraised object to build a comparative system, and adjusting the system through analyzing the differences of transaction conditions between the comparable examples and the appraised object. When adopting the market method, the value of the trademark right is obtained by referring to the price of comparable assets in recent acquisition and transaction. The valuation determines the value of a trademark according to the transaction price of similar trademarks in the market.

2.3 Income Method

The income method estimates the value of trademark assets through calculating the expected future income generated by the trademark rights and converting the figure into the present value. As a kind of intangible assets, the income of trademark ownership is realized through the sale of products; the value is realized through the cash flowing into the enterprise. Therefore, to predict the expected income of the trademark right, we should first predict the income of the products to which the trademark right attaches, and then decide the contribution rate of the trademark right to the

income, so as to estimate the value of the trademark right.

2.4 Comparison of Valuation Methods

The cost method, the market the method and income method all have their advantages and limitations in the valuation of trademark rights. According to the merits and demerits of different methods, each method has its applicability in different environments.

The cost method is carried out based on the owner's expenses on the trademark. In that process, the valuation may deviate due to the complexity and missing of cost information. However, it can reflect the true cost and can be applicable to the valuation of trademark right in the pilot period. After a period of formal use, the composition of the trademark value will become more complex, and the cost collected in the trademark will be difficult to separate. However, the trademark in the pilot period has not been used or has only been used for a short period of time. The historical data are complete. The cost method conforms to the characteristics of the trademark in this stage, and can obtain relatively accurate results.

The market method is a short period of time the most widely used method in asset valuation, but its limitations are also very obvious. Due to the close relationship between the value of trademark right and relevant information of the enterprise, little information about the trademark transaction is available in the market. The market method cannot be used without enough information. Therefore, currently, the market method is seldom applied in the valuation of trademark right. It is often used for the auxiliary verification of the valuation result.

Compared with the cost method and the market method, the income method is less limited in data collection. The amount of income can be obtained by different standards. There are many methods to determine the income period, such as laws, contracts and other methods. There are also various ways to determine the discount rate. The method has strong applicability; its conclusions can be widely accepted by report users. In today's world, generally used trademark valuation methods usually belong to the income method or derive from the income method. The application of income method in the valuation of trademark rights has the advantages of operability and comprehensibility.

3. Using the Income Method to Value the “A” Trademark of a Investment Company

3.1 Background of the Company

3.1.1 Company Profile

As an economic organization with the form of group company, A investment company pays attention to the value and utility of its assets. The enterprise chooses to carry out relevant financial operations through its high-quality assets to improve the financial efficiency and maximize its benefits. With the continuous development of A company and the continuous improvement of its popularity, its “ α ” trademark has been recognized as a famous brand. The enterprise decided to use the trademark for a mortgage loan to increase the investment in trademark users, and to make it a pillar industry in the development of the group.

3.1.2 Introduction to the Organization Evaluated

In this case, A investment company applies for a mortgage loan from financial institutions through the “ α ” trademark it held. In order to determine the market value of the trademark on the benchmark date of December 31, 2017, the valuation is entrusted. The object of this valuation is the ownership of “ α ” trademark, and the scope of valuation is the user of “ α ” trademark. The object is an upstream enterprise in the precious metal industry; it mainly engages in the sale of ores and primary products after primary smelting. It has a mine with the residual reserves of about 1.5 million tons and the grade of 34 g / t. According to the availability of relevant assessment information, the income method is adopted as the assessment method.

3.2 The Valuation Process

3.2.1 Determination of the Valuation Model

According to the income method, the valuation model adopted in this study is as follows.

$$\text{Value of trademark assets} = \beta \left[\sum_{i=1}^n \frac{R_i}{(1+r)^i} \right]$$

β : share rate if the trademark

R_i : expected excess return of trademark in the i th year

n : income period

r : discount rate

3.2.2 Determination of Income Amount

In this case, the expected future income of the enterprise is net profit. Through the analysis of historical financial data, the income, cost, expense of the products and taxes are predicted to obtain the amount of income in the future.

3.2.2.1 Operating Income Forecast

From 2015 to 2017, the business income of the enterprise totalled 419.22 million yuan, with a compound growth rate of 5.93%. Considering the development of this enterprise, characteristics of the industry as well as market demand in the future, the company should still have a certain space on the basis of the existing market share. According to the production scale, production capacity, the market situation, industry competition and other factors, it can be reasonably predicted that the annual ore mining amount that meets the reasonable mining capacity of the enterprise should be 250,000 tons; the annual ore processing capacity should be 250,000 tons; the produced and sold mineral products should be 20,000 tons. Based on above data, the total reserves of this area will be mined out and sold in 2023. On the benchmark date, the price of the product is 299 yuan / g; the average price is 218.5 yuan / g; the grade of ore excavated in the mining area is 34g / t. According to Wind data, the price of the product from 2014 to 2017 as well as industry development trend, the product's price growth rate should be 2% on a month basis. Based on historical data and relevant forecast information, the company revenue from 2018 to 2023 is predicted in Table 1.

3.2.2.2 Main Business Cost Forecast

From the perspective of industry characteristics, the largest costs are raw ore costs, labour costs as well as water and electricity costs. According to historical data as well as the relationship between cost and influencing factors, the quantitative analysis method is used to estimate the costs in the future. From 2015 to 2017, the enterprise cost ratio showed an upward trend. It is predicted that from 2018 to 2023, the main business cost will increase by 1% on the basis of 2017. Based on the forecast information, the main business costs from 2018 to 2023 are predicted in Table 1.

3.2.2.3 Calculation of Main Business Taxes and Surcharges

For the enterprise, resource taxes are the most important business taxes and surcharges, which are charged at 6 yuan per ton. It is predicted that the annual mining volume from 2018 to 2023 will be 250,000 tons. Therefore, the annual resource taxes payable from 2018 to 2023 should be 1.5 million yuan.

3.2.2.4 Three Costs Forecast

The product structure and the proportion of operating items of the company are relatively stable; the operating expenses and the income ratio fluctuated very slightly for each year. Therefore, it can be inferred that the product structure and the income ratio of the enterprise in 2017 can represent the business situation in the future; the ratio of operating expenses, management expenses to main income can represent the cost level in each year in the future. Considering the price rise and other

factors in the forecast period, the operating expenses are calculated as 0.05% of the sales revenue after deducting the non operating expenses. Based on historical operating conditions and the future development of the enterprise, the management expenses in the next three years are calculated as 6.90%, 6.95% and 7.00%, and then stable at 7.0% for the following years. The enterprise has good cash flow and normal loan transaction; there are no obvious bad debts. The financial expenses are predicted according to the interest payment required by short-term loans. On the benchmark date, the short-term loan of the appraised company is 213,320 thousand yuan, and the interest rate of the short-term loan is 6.53%. Based on above information, the three costs from 2018 to 2024 are predicated in Table 1.

3.2.2.5 Non-Operating Income and Expenditure

In this case, non-operating income and expenditure irrelevant to trademark design are calculated as zero.

3.2.2.6 Income Tax

The enterprise is a general tax payer with an income tax rate of 25%.

3.2.2.7 The Final Income

Net profit = (main business income - main business cost - main business taxes and surcharges - operating expenses - management expenses - finance expenses) × (1-income tax rate)

The prediction results are shown in Table 1.

Table 1 Forecast on the Amount of Income

unit: ten thousand yuan

	2018	2019	2020	2021	2022	2023
Main business income	16299	16625	16957	17269 17642	17995	
Main business cost	10241	10343	10447	10551	10657	10763
Main business taxes and surcharges	150	150	150	150	150	150
Main business profit	5908	6131	6360	6595	6835	7082
Total expenses	2526	2557	2588	2612	2637	2662
Operating expenses	8	8	8	9	9	9
Management expenses	1125	1155	1187	1211	1235	1260
Finance expenses	1393	1393	1393	1393	1393	1393
Total profit	3382	3574	3772	3982	4198	4420
Income tax	845	894	943	996	1050	1105
Net profit	2536	2681	2829	2987	3149	3315

3.2.3 Determination of Discount Rate

According to the principle that the income amount should be consistent with the standard of discount rate, the purpose of this case as well as the analysis of collected data, the method of social average rate of return can objectively reflect the income value of the company's overall assets, so the risk-free interest rate and risk adjustment value is used to determine the discount rate.

The risk accumulation formula is as follows.

The discount rate = risk-free return rate + risk premium rate

The risk-free return rate is determined as 3.14% based on the average rate of return in the society and the current interest rate of ten-year government debt issued by the state.

Risk premium rate = product risk premium rate + operation risk premium rate + market risk premium rate + financial risk premium rate

According to the experience of relevant valuation practices, the risk coefficients are between 0% to 3% in the range of low, medium and high. Relevant experts are invited to grade the risk level. The company has mature product technology; the quality of its products are recognized by the market. The product risk is low and the product risk premium rate is 0.99%. The products with “α” registered trademark have a good market. The company has strong ability of sustainable operation,

and certain comprehensive competitive strength. It also has high overall management quality and is less affected by the external business environment. There are no legal proceedings or other issues within the scope of knowledge. The operation risk is low, and the operation risk premium rate is 0.9%. The evaluated company belongs to a sunrise industry which develops very fast in China, making the competition increasingly fierce. With certain market risks, and the market premium return rate is 1.15%. The company has good assets and liabilities status as well as operation status; the turnover rates of receivables are relatively high over the years. There are no obvious bad debts. The enterprise needs certain loan financing, and there is certain financial risk. The financial risk return rate is 1.75%. It can be concluded that the risk premium rate is 4.79% and the discount rate is 7.93%.

3.2.4 Determination of Income Period

The valuation object is an upstream enterprise in the precious metal industry, whose economic life is limited by the minable life of the mine. According to the minable reserves of this area and the reasonable mining capacity of the enterprise, the remaining minable life of the mine is determined as 6 years. According to historical data, the sales volume of mineral products matches the production capacity of the enterprise; the product sales period is consistent with the remaining mining life. So the income period is six years.

3.3 Valuation and Estimation

3.3.1 Profit Share Rate

The income standard adopted in this case is net profit. According to the valuation practice and international conventions, the range of trademark share rate is between 25% and 33% based on the net profit. This case takes 25%. Considering the influences of the level of the industry, the recognition degree of the trademark in the society and the position of trademarks in the industry, the profit share rate of the trademark = $(28\% + 24\% + 30\%) \times 25\% = 20.5\%$

3.3.2 Calculation of the Valuation Result

According to the selected valuation model and predicted data,

$$\left[\frac{2536}{1+7.93\%} + \frac{2681}{(1+7.93\%)^2} + \frac{2829}{(1+7.93\%)^3} + \frac{2987}{(1+7.93\%)^4} + \frac{3149}{(1+7.93\%)^5} + \frac{3315}{(1+7.93\%)^6} \right] \times 20.5\% = 2737 (\text{ten thousand yuan})$$

Therefore, under the condition of the valuation assumptions and relevant valuation elements, the market value of the “α” trademark assets held by A investment company is 27.37 million yuan on the benchmark date of December 31, 2017.

4. Conclusion

This paper adopts the income method to evaluate the “α” trademark assets held by A investment company. The annual income of trademark products in the future is calculated based on the financial information of the valuated enterprise, the development trends of the industry and the company, as well as the relationship between cost and benefit. The risk accumulation method is used to obtain the discount rate. The risk premium rate is obtained through the scoring method on the basis of comprehensively considering the medium and long term risk-free return of the national debt, as well as the financial and market conditions of the enterprise. In terms of the income period, the remaining life of the mine is determined according to its exploitable life, which is taken as the term of income. The share rate of profit is obtained through the empirical data method. The contribution rate of the trademark is revised according to the macro, market and economic factors. In the process of valuation and estimation, the valuation basis is sufficient. The result on the value of trademark right is objective.

References

- [1] Du, W.J. and Yang, J.J. (2017). Study on the Application of Income Method in the Valuation of Trademark Assets. *Modern Business Trade Industry*, no. 27, pp. 138-140.
- [2] Yang, L.X. (2016). Construction of Cultural Tourism Brand Assets Value Valuation Model. *Market Forum*, no. 6, pp. 78-80.
- [3] Trademark (2018). Brand Valuation from the Perspective of Society. *China Trademark*, no. 5, pp. 59-61.
- [4] Zhang, X. (2018). Trademark Application Strategy and Enterprise Value Promotion. *Commercial Research*, no. 2, pp. 1-8.
- [5] Guo, Q.Q., Song M., Zhou, Y.C., et. al. (2015). Study on the Brand Value Valuation of Geographical Indications of Agricultural Products in Shanxi Province Based on the Interbrand model. *Research of Agricultural Modernization*, vol. 36, no. 3, pp. 450-455.
- [6] Xie, H.Y., Zhou, Y.Q. and Gong, L.Q. (2018). The Trademark Pledge Financing Difficulties of Small and Medium-sized Enterprises in China and Countermeasures. *China Journal of Commerce*, no. 8, pp. 172-174.