

# A Study on the Application of the Income Approach in Trademark Asset Valuation

## -- A Case Study of MIXUE Ice Cream & Tea

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**Abstract.** The purpose of trademark asset evaluation is to provide trademark owners or potential owners with an effective method based on the real market to determine the value of trademark assets. Currently, evaluation agencies calculate the expected profits of trademark assets in different periods based on the share of trademark licensing fees in company revenue. However, this forecasting method is evidently not rigorous enough. This article focuses on the expected income under the income approach and introduces uncertainty in future income forecasts. Firstly, the factors influencing the value of trademarks and service benefits are analyzed, and a multi-level indicator framework for measuring trademark and service benefits is developed. Secondly, the primary indicators in the indicator system are defined as the standard level, and assets such as patents, trademarks, and distribution networks are defined as the solution level. A weighted indicator analysis system is established to separate trademark asset income from product and service income.

**Keywords:** trademark assets; incomeApproach; intangible assets; trademark.

## 1. Introduction

As an integral part of a company's intangible assets, a trademark represents the company's image and its immense value plays a crucial role in its development. In practice, there are two main aspects to consider. Firstly, providing a valuation of the trademark asset can offer valuable parameters for the company's operations and development. Secondly, evaluating the value of the trademark asset can enhance the company's awareness and appreciation of its intangible assets. However, companies tend to focus more on tangible assets while neglecting the potential value of intangible assets, such as trademarks. Through evaluating the company's trademark assets, the company can gain a proper understanding of the value they bring, thus increasing their efforts in creating and managing these assets.

This article combines the concept of trademark assets with relevant valuation theories, utilizing comparative analysis and a case study of MIXUE Ice Cream & Tea. Based on research and analysis, the income approach is deemed more aligned with the valuation of trademarks, and it is suggested to determine the asset yield rate based on the current method of the ratio of trademark usage fees to income.

## 2. Asset Evaluation Process

### 2.1 Forecasting of Income

Based on the analysis of Mixue Co., Ltd's product market and the company's operational status, the growth rate of sales for each product is gradually decreasing in the following years, and there has been a downward trend in Mixue Co., Ltd's revenue from 2021 to 2022. Following this line of thinking, the company's projected operating revenue for the next 5 years is as follows (Table 1):

**Table 1.** Forecast operating Income table

Unit: ten thousand yuan

project	In 2023,	In 2024,	In 2025,	In 2026,	In 2027,
	amount of money	amount of money	amount of money	amount of money	amount of money
the original material of food	23,137,572.16	11,568,786.08	5,784,393.04	2,892,196.52	1,446,098.26
packing material	5,692,176.64	2,846,088.32	1,423,044.16	711,522.08	355,761.04
Equipment and facilities	2,223,506.24	1,111,753.12	555,876.56	277,938.28	138,969.14
Operating supplies and others	1,159,248.64	579,624.32	289,812.16	144,906.08	72,453.04
Franchisee management	626,377.60	313,188.80	156,594.40	78,297.20	39,148.60
Direct store products	264,951.04	132,475.52	66,237.76	33,118.88	16,559.44

The registration and licensing fees for the MIXUE Ice Cream & Tea trademark can be calculated using the comparative market approach, which can be referenced from the latest developments in trademark licensing fees and licenses for certain similar companies in the food industry. By consulting relevant information, we can obtain the trademark licensing fee situation for some listed food companies, as shown in Table 2:

**Table 2.** Trademark license fee

stock code	stock abbreviation	brand name	License Rate (Revenue Base)
000729	Yanjing Beer	Yanjing	1%
000869	Changyu A	Solution to bena	2%
002306	Xiang e feeling	Xiang e feeling	2%
000858	Wuliangye	Wuliangye	1.27%

After analyzing the key factors that affect the value of trademarks in this survey, adjustment factors for Mixue Co., Ltd's trademark can be determined through an evaluation method (as shown in Table 3).

**Table 3.** Adjustment coefficient

parameter	LCC	Yanjing Beer	Changyu A	Xiang e feeling	Wuliangye
popularity	1	4	4	2	4
profit margin	1	3	4	3	4
Growth	1	1/4	1/4	1/3	1/5
adjustment coefficient		1/3	1/4	1/2	5/16

## 2.2 Determination of the discount rate

According to the relevant knowledge of the asset performance evaluation method, the discount rate corresponds to the required return, that is, the risk-free return and the risk-free return, namely, the discount rate = risk-free return + risk-free return. Among them, online consulting identified a risk-free return, with an average return on five-year bonds of 4.17%. According to the adequacy principle of discount rate and profit rate, combined with the actual situation of the company, the return risk can be divided into three categories: market risk, financial risk and management risk. The sum-up of the three is risky. The three steps of the risk calculation are as follows:

### 2.2.1 Calculate the risk coefficient based on the market risk value table

Divide the market risk into 40% and 60% market capacity risk and market competition risk. When scoring the risk of the large market, the following conditions: if the total market is large and stable; if the total market capacity is average, 20 points are applied; if the total market capacity is average; if the total market capacity is small and growing rapidly, if the total market capacity is small and the development is smooth, the score of 100 points will be obtained.

Market competition risk can be divided into 70% and 30% of the market competition risk and market potential competition risk. According to the competitive risk in the market, the following

clauses: the market is a new market without other manufacturers, so the value is 0; the total market manufacturer number is large, the evaluated trademark has good advantages and the value is 20; 40 for the total market trademark; the value of the total market trademark is 60; the total market manufacturer number is large, and the rated trademark is inferior, then the value is 100. Because of the good advantages of the evaluated trademark, the risk adds 20 points.

### **2.2.2 The risk coefficient is determined based on the market potential competition risk value table.**

The market's potential competitive risk is determined by three factors. Firstly, economies of scale. Based on the assessment of whether the company has full economies of scale, significant economies of scale, some economies of scale, or no economies of scale, the risk score for Mixue Co., Ltd is ultimately 80 points. Secondly, the amount of investment and conversion costs raised in this round. Based on the assessment of whether the investment amount and conversion costs for the Mixue Co., Ltd trademark are very high, relatively high, or very low in relation to the project, a score of 60 points is assigned, indicating a moderate situation for the investment amount and conversion costs. Thirdly, online sales. Based on the assessment of the completeness of the sales network for Mixue Co., Ltd, the score for its sales network is 80 points. The proportions of the sales network are 40%, 20%, and 40% respectively, for economies of scale, investment amount, and conversion costs. Based on the scoring calculation, the market risk coefficient is determined to be 4.36.

### **2.2.3 The risk coefficient is determined according to the capital risk value table**

Financing fixed assets risk is divided into financing fixed assets risk and working capital risk, which each account for 50%. Assign the risk value according to the following situation specific analysis. According to the project investment amount is very low, low, medium, high and very high investment amount, take 40 points, judging that the required investment amount is medium. MIXUE Ice Cream & Tea liquidity demand is less, the risk of 40 points. According to the several different situations where the amount of working capital demand is small, medium and higher, the fund risk coefficient of MIXUE Ice Cream & Tea is 4.

### **2.2.4 The risk coefficient shall be determined according to the risk value table of operation and management**

For sales and service risks, values shall be assigned according to the following conditions: for existing sales outlets and personnel, 0 points shall be taken; if the sales and service outlets expand the existing outlets, the score shall be 20 points; if the new network reaches a certain number, the new manpower input shall be added; if the new network shall be doubled; if the new sales network shall be developed, 80 points shall be obtained; if the outlets and salespersons are all new, 100 points shall be taken. In addition to the use of the existing outlets, the trademark of MIXUE Ice Cream & Tea needs to set up new sales and service outlets in most provinces and cities across the country, and this risk is recorded at 60 points. According to the following conditions: If the quality assurance system is well established, And has effectively controlled the entire implementation process, Then take its score value is 0; If the quality assurance system is relatively well-established, The process controls the vast majority, Take 20 points; Quality assurance system is not sound, With more process control, Take 40 points; If a quality assurance system is established, But there are some flaws, Many processes are poorly controlled, Take 60 points; If a quality assurance system is established, But the defect is larger, The process is mostly poorly controlled, Take 80 points; If a quality assurance system remains to be established, Implement quality control only in individual links, The score value is 100 points. To sum up, market risk equals 4%, capital risk to 4.36%, and management risk to 5.4%.

Risk rate of return = market risk + capital risk + management risk = 4% + 4.36% + 5.4% = 13.76%

Disold rate = risk-free return rate + risk return rate = 4.17% + 13.76% = 17.93% (18%)

## 2.3 Evaluation results

According to the license rate of 0.63% of the trademark assets, the annual income of the trademark assets can be calculated, and the present value obtained by discount is the appraisal value of the trademark assets. The evaluation results are shown in the following table:

**Table 4. Results**

project	In 2023,	In 2024,	In 2025,	In 2026,	In 2027,
operating receipt	1863177.44	3912672.63	6651543.48	13303086.95	29266791.29
License rate	0.0056	0.0056	0.0056	0.0056	0.0056
Annual use tax	10433.79	21910.97	37248.64	74497.29	163894.03
income tax rate	0.25	0.25	0.25	0.25	0.25
Trademark revenue	7825.35	16433.23	27936.48	55872.97	122920.52
Discount period	1	2	3	4	5
discount rate	0.18	0.18	0.18	0.18	0.18
discount factor	0.8475	0.7182	0.6080	0.5158	0.4371
present value	6631.98	11802.34	16985.38	28819.28	53728.56
Total present value	117967.54				

Under the premise of continuous operation on the base date of evaluation, the trademark asset value of MIXUE Ice Cream & Tea owned by Mixue Co., Ltd is RMB 1,179,9675,400 yuan.

## 3. Conclusion

Trademarks play a crucial role as the external image of a company and have become increasingly important in economic activities related to trademark assets among companies. However, the main challenge of the approach lies in predicting the profitability of trademark assets. This article introduces improvements in the following areas: analyzing the key factors that influence the profitability of goods and services when forecasting future profits, and establishing a weighted system for assessing the profitability of goods and services.

Overall, the valuation of trademark assets is significant for trademark owners, business partners, and parties involved in trademark transactions. Trademark owners should focus on evaluating their trademark assets and use the evaluation results to develop more reasonable strategies for trademark management and operations, thereby enhancing the value and competitiveness of their trademarks. Business partners and trademark traders should also take the valuation of trademark assets seriously and make appropriate decisions based on the valuation results to achieve better business benefits.

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