Trademark Valuation for Revitalization

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ABSTRACT

The purpose of this study is to propose a practical and practical standard for evaluating real corporate trademark value by presenting the valuation method by the income approach as mentioned above with case analysis. This trademark valuation is intended to evaluate the fair value of the trademark as of December 31, 2016, assuming that the company that developed the "NEO" relocated the relevant trademark right in and out of the country. When the trademark right is evaluated as a income approach, the expected future profit is discounted to the present value. This method is the most suitable method and the theoretical method of the trademark right valuation because of the characteristics of the enterprise trademark for selling the product. It is the limitation of this study that the implications are gained through a single company, and future case study and application of various enterprise groups by size and industry should be continued.

Keywords: Intellectual Property, Valuation, Brand Management, Income Approach, Corporate Trademark.

1. INTRODUCTION

Intellectual property rights for job creation and sales growth play a particularly important role in the knowledge information economy. Many companies are concentrating on brand management in this paradigm, and efforts are being made to improve corporate performance by building strong brand equity. As a result of the environmental changes in the intelligence information economy, the proportion of corporate trademark rights has increased significantly, and it is increasingly necessary to evaluate the trademark rights value objectively and rationally. Therefore, rational valuation of trademark value for revitalizing brand in the purpose of previous transaction and commercialization, financial support, investment decision making, M & A, litigation, brand strategy etc. However, in spite of this importance, the lack of awareness of brand assets and the capacity to evaluate them are insufficient (Kim, Heung Su, 2014). The related regulations prescribe the evaluation of intellectual property rights, but the evaluation criteria are not specified in detail, and it is very likely that the subject person of the evaluator will intervene. In order to solve these problems, the valuation of corporate trademark rights should be deviated from the subjective valuation method, and it is urgent to establish the evaluation criteria to select various evaluation techniques.

The purpose of this study is to propose a practical and practical standard for evaluating real corporate trademark value by presenting the evaluation method by the income approach as mentioned above with case analysis. Earlier approaches to profitability approach. The limitations of the paper are as follows (Lee Duk Gi, 2004; An Jung Keun, 2006; Park Hyun Woo, 2009). First, it lacks a description of the valuation approach to the income approach. Most of the papers do not explain the income approach methodology in detail, so it is difficult to use them practically. The model analysis of the income approach is explained, but the actual case analysis based on the model is insufficient. Therefore, in order to secure the credibility and objectivity of valuation, it is necessary to provide concrete methodology of income approach to intellectual property. The purpose of this study is to examine the theoretical and practical aspects of the valuation methods and procedures of the income approach that are useful for valuing intellectual property. We will examine in detail the principles and methods of valuation of intellectual property, practical cases, and present future research tasks.

2. APPLICATION AREAS OF INTELLECTUAL PROPERTY VALUATION

Intellectual property rights can be an appropriate subject for investment and mortgage lending. Intellectual property rights are a legal right to transfer and to secure the stability of the loan. When financing intellectual property rights as collateral and securitizing them as collateral assets, it is necessary to evaluate the value of intellectual property rights and the flow of cash generation (Fernandez, 2001). Second, companies sometimes reorganize through mergers and acquisitions. In this case, if there is insufficient understanding of ‘value’, it does not bring about the desirable results as expected from the price negotiation or the result of the merger or acquisition process. The evaluation process shows the elements that can be used and developed, and makes a rational choice in terms of the nature of the transaction and the transaction price. If neither the transferor nor the recipient is aware of this, it may not be easy to maintain the value of intellectual property right after a transaction or transaction. Likewise, in the case of bankruptcy and the like, effective and rapid processing is possible when an appropriate evaluation is accompanied. Third, intellectual property rights evaluation is closely related to other fields such as tax disputes and contract disputes due to ownership transfer. When these disputes arise or go to court due to litigation, the role of specialists becomes important in ways that can be reasonably accepted. In addition, when goods infringing intellectual property rights are sold, it may be possible to request the evaluation expert who is a third party to calculate the loss amount. Each country participates in evaluation of IPR related appraisal experts in order to calculate the loss due to infringement or to calculate the profit margin of the infringer (Fernandez, 2001). Fourth, intellectual property rights as property can be traded in whole or in part in the case of trading, licensing, joint venture, business expansion, etc. When an intellectual property rights is transferring to other companies, it should be evaluated for the purpose of calculating appropriate transfer costs. All transfers of intellectual property rights are transferred and some are transferred. In this regard, the acquirer will want to know the historical cost of developing the intellectual property rights to determine the size of the investment, and will also want to know the opportunity costs of not investing in the intellectual property rights. Anyone wishing to obtain a license will review how the value of intellectual property rights will be reaped and will determine the appropriate royalties for the use of intellectual property rights thereunder. In the case of joint ventures or joint ventures, in particular in the field of R & D that produces new technologies that combine various rights, including intellectual property rights, evaluation of intellectual property rights is essential. Fifth, an entity should process accounting according to accounting standards. For this reason, intangible assets such as intellectual property rights should be presented in the financial statements. Intangible value can be inaccurate and fluctuate over time. This lowers the credibility of the report and therefore the management of the company needs to understand how intangible assets contribute to the shareholders. Sixth, Korea's Inheritance Tax and Gift Tax Act defines the evaluation of intellectual property rights as one of the intellectual property rights. In other words, intellectual property rights, etc. are defined by the total amount of the amount calculated by the relevant laws and regulations based on the amount of income of each year to be received by the right in the future. The fact that the amount of income in each year is not fixed is stipulated that the average amount of income for each year based on the amount of income of each year for three years before the evaluation standard (Song, Jae Ki, 2007). Seventh, it is to grasp the value of intellectual property rights as management information. As intelligence information society is developed, the importance of intangible assets increases. Especially, most companies are making efforts to increase corporate value by paying attention to the value of intellectual property rights. Therefore, the evaluation of intellectual property rights is greatly increased in order to refer to the management, and it is an important means and strategy of management itself and serves as a main element of marketing (Park, Mun GI et. al., 2015).

3. VALUATION OF CORPORATE TRADEMARK

The income approach is a method of approaching the asset's ability to generate revenue. This method assumes that the value of an asset can be assessed by calculating the present value of the net income earned during the lifetime of the asset. The discount rate will be used to calculate the present value of future profits. The three components of the income approach are: first, the amount of income generated by the asset; second, assumptions about the duration of the income stream; and, third, assumptions about the risk involved in realizing future profits.

The income approach is a method of calculating the fair value of an object by discounting the expected future cash flows for each period to the present value. In other words, it estimates the additional cash flow generated by owning or operating the evaluation target and evaluates the value of the evaluation target. It is the most forward-looking and theoretically the most fundamental value calculation method (Reilly & Schweihs, 2005). When a company's trademark right is evaluated as a income approach, the expected future income is discounted to its present value. This method is the most appropriate and theoretical method for trademark right evaluation in view of the nature of corporate trademark for the sale of goods. However, the income approach has many difficulties in accurately estimating the income to be incurred in the target trademark, estimating the appropriate discount rate and estimating the economic life span. Especially, if the future value of trademark rights is unclear, it is difficult to apply the income approach. The application of this method should be noted that the market for trademark rights should be stable. That way, you can get a clear picture of net incomes and discount rates. If the market situation fluctuates extensively, it is difficult to grasp the net income or the discount rate because the economic condition is floating (Brealey, Myers, Allen, 2011).

4. RESULTS AND DISCUSSION

The purpose of the valuation is to evaluate the value of the trademark rights of the functional furniture "NEO" by examining the marketability and business feasibility of the contents included in the trademark. "NEO" is an intellectual property right of a furniture company established on May 8, 2016 in Gwangju Metropolitan City. As of November, 2016, prototype product development and factory facilities have been completed. This trademark assessment is intended to evaluate the fair value of the trademark as of December 31, 2016, assuming that the company that developed the "NEO" relocated the relevant trademark right in and out of the country.

Order of Trademark Valuation

Estimates of sales, projected earnings, and net cash flows are made through estimated financial statements of sales, investment, and expenses. The discount rate is estimated by taking into account the risk premium on the risk-free asset return. The valuation of trademark rights in the commercialization stage applies the usual empirical discount rate by the correlation method and the variable discount rate by the CAPM model The economic life span of a trademark right is calculated through the relative competitiveness of the asset. In the evaluation of intangible assets such as trademarks, the economic life is estimated to be 5 years in general. In this case analysis, there is no residual value. The sum of the discounted cash flows is obtained from the life of the trademark right and the discount rate. The final step is to estimate the portion of the company's discounted cash flows contributed by the trademark. Contribution is generally determined between 0 and 0.50 considering the characteristics of the trademark. We consider both the general contribution by correlation law and the adjustment contribution considering technology, business, and marketability (Song, 2007).

Assumptions of Trademark Valuation

The prerequisites for valuating this trademark are as follows.

- The company will complete production at the end of 2016 and start production. Sales will start in 2017.
- Sales are assumed to increase by 10% every year based on the first year sales plan, which is estimated by the company, taking into consideration the overall market size, market share, and marketability of the products (Park, Jung Sik et. al., 2014).
- The estimated profit and loss statement shall be based on the estimated amount presented by the company.
- The initial direct development cost (₩70,000,000) is financed by other capital.
- The non-operating expenses (financial expenses) are calculated using the industry average and the burden ratio (10%) on the capital of other persons.
- The headquarters and factory buildings are assumed to be leased, and machinery and equipment (ten years, residual value: 0) are amortized using straight-line method.
- There is no additional facility investment since 2016.
- There is no increase or decrease in working capital due to changes in inventories, accounts receivable, and trade payables.

- The economic life of the trademark is assumed to be five years, and the residual value is assumed to be zero (Bodie, Merton, Cleeton, 2011).

Trademark Valuation

Assuming that the company will start sales from 2017, we estimate sales based on the assumption that sales will increase by 10% every year based on the first year sales plan presented by the company. Sales volume and sales are calculated based on three models developed by the company based on market conditions and characteristics. The company sets the price of product A at ₩210,000 and the price of product B and product C at ₩180,000.

The cost of sales is basically estimated using the cost ratio by referring to the latest year's settlement of accounts data. In the case of a company consisting of divisions, the sales costs are calculated for each business division in order to calculate the sales expenses. The costs that can be tracked to each business division are directly addressed, and a reasonable Dispense using the distribution standard. Given the cost structure of the initial cost structure, we will apply 45% of the total sales. Sales costs consist of depreciation and selling and administrative expenses. The depreciation expense is amortized using the straight-line method (residual value of 0, 10 years of useful lives) for capital expenditure of ₩37,500 thousand for 2016, capital expenditure of ₩52,200 thousand for 2017 and capital expenditure of ₩117,400 thousand for 2018. Assuming no facility investment since 2019, Sales management costs consist of personnel expenses, general management expenses, and selling expenses. Personnel expenses are the salaries of development and management personnel, payment commission, and service costs.

In this case, the selling and administrative expenses consist of salary (₩360,000,000) for seven sales and public relations personnel and five development personnel with fixed costs, and advertising expenses (5% of sales) of variable costs. The effect of depreciation costs is taken into account in calculating the cost of sales. The depreciation cost is included in the sales cost, but it is added later because it is a cost item with no cash outflow. The corporate tax rate is 25%. Estimated earnings based on the above criteria are shown in Table 1.

Table 1
Expected earnings estimates
(Units: thousand won)

Division		*2017*	*2018*	*2019*	*2020*	*2021*
Total sales		1,476,000	1,623,600	1,785,960	1,964,400	2,161,020
Cost of sales		664,200	730,620	803,682	883,980	972,459
Gross profit		811,800	892,980	982,278	1,080,420	1,188,561
Selling costs	Depreciation	3,750	8,970	20,710	20,710	20,710
	Labor costs	360,000	360,000	360,000	360,000	360,000
	Advertising costs	73,800	192,600	250,380	325,494	423,142
	Subtotal	437,550	561,570	631,090	706,204	803,852
Capital costs		7,000	7,000	7,000	7,000	7,000
Net Income		367,250	324,410	344,188	367,216	377,709
Income tax		91,813	81,103	86,047	91,804	94,427
Net profit after tax		275,438	243,308	258,141	275,412	283,282

Based on the above assumptions and estimated earnings estimates, we estimate cash flows as shown in Table 2.

Table 2
Estimates of cash flows
(Units : thousand won)

Division	*2017*	*2018*	*2019*	*2020*	*2021*
Net profit after tax	275,438	243,308	258,141	275,412	283,282
Depreciation (+)	3,750	8,970	20,710	20,710	20,710
Total cash inflow	279,188	252,278	278,851	296,122	303,992
Cash outflow (Capital investment)	52,200	117,400	–	–	–
Net cash flow	226,988	134,878	278,851	296,122	303,992

The discount rate is the conversion rate that translates future cash flows into the present value, and at the same time is the interest rate that calculates the cost of capital, which is the cost of use for the transferred capital. In this case analysis, fixed and variable discount rates are applied at the same time. The fixed discount rate is 25% based on the correlation method. The variable discount rate is 35%, 30%, 25%, 20% and 15%. This is because risks are high at the beginning of the project and reflect a gradual decline in risk if the project is successful (Oh, Hyun Taek, 2015). For reference, the average household debt ratio (60%), other capital cost (0.08: return on corporate bonds), risk-free asset return (0.06: government bond yield), market portfolio return (0.28: Applying CAPM on the basis of risk (beta = 2) data yields a weighted average cost of capital, which is close to 25%, the third year variable discount rate (Lee, Myoun Jae et. al., 2015).

The economic contribution of the trademark rights is measured by the score according to the evaluation item as shown in Table 3 to apply the adjusted contribution reflecting the general contribution by the correlation method and the contribution adjustment coefficient.

The economic contribution of trademark rights is estimated to be 27%, taking into account the contribution adjustment factor of 1.075 obtained through the technical, business, and marketability evaluations to the 25% rule based on the correlation law. The value of trademark rights under the income approach, which is the value obtained by discounting the economic life of a trademark for five years, is the highest value of 270,605,000 won from the lowest price of 248,166,000 won as shown in <Table 4>.

Table 3
Trademark Contribution Adjustment Factor

Division	*Weight*	*Score*					*Total Coefficient*	
		0.50	*0.75*	*1.0*	*1.25*	*1.50*		
Technical (30)	10			○			10	32.5
	5		○				3.75	
	5				○		6.25	
	5				○		6.25	
	5				○		6.25	
Feasibility (35)	5				○		6.25	38.75
	10				○		12.5	
	5			○			5	
	5			○			5	
	10			○			10	

Division	*Weight*	*Score*					*Total Coefficient*	
		0.50	*0.75*	*1.0*	*1.25*	*1.50*		
Marketability (35)	10		○				7.5	36.25
	10				○		12.5	
	5			○			5	
	5			○			5	
	5				○		6.25	
Adjustment factor		(32.5 + 38.75 + 36.25)/100 = 1.075						

Table 4
Trademark value reflects the discount rate and the contribution

Division	*2017*	*2018*	*2019*	*2020*	*2021*	*Total*
Net cash flow	226,988	134,878	278,851	296,122	303,992	1,240,831
Fixed discount rate	0.25	0.25	0.25	0.25	0.25	
Fluctuations discount	0.35	0.35	0.25	0.20	0.15	
General contributions	0.25	0.25	0.25	0.25	0.25	
Adjustment contributions	0.27	0.27	0.27	0.27	0.27	
Fixed discount rate General contributions	45,398	26,976	55,770	59,224	60,798	248,166
Fixed discount rate Adjustment contributions	49,029	29,134	60,232	63,962	65,662	268,019
Fluctuations discount General contributions	42,035	24,977	55,770	61,692	66,085	250,560
Fluctuations discount Adjustment contributions	45,398	26,976	60,232	66,627	71,372	270,605

Table 5 shows the results of evaluating the "NEO" trademark right by the income approach. The value of the trademark right is 248,166,000 won, and the value of the trademark right is 268,019,000 won. The value of trademark rights applied with variable discount rate and general contribution was estimated to be 250,560,000 won, and the trademark value with variable discount rate and adjusted contribution amount was 270,605,000 won. As mentioned above, the valuation of the trademark rights is based on the assumption of the previous transaction. Therefore, it is desirable to evaluate the trademark in a fair way acceptable to the trading party. The value of the valuation has varied from 248 million won applied to the fixed rate and general contribution of the income approach to 270 million won applied variable rate and adjusted contribution. Fixed discount rate and general contribution rate can reflect buyer's position as much as possible, while variable discount rate and adjustment contribution can reflect the seller's position as much as possible.

Table 5
Trademark Valuation

Valuation Methods	*Trademark value*
Income approach	248,166,000 won (Fixed discount rate, the general contribution applies) ~ 270,605,000 won (Change the discount rate, the adjusting contribution applies)

Intellectual property valuation, such as trademark rights, generally considers the income approach a top priority. However, there is no past performance like case companies, and a conservative view is needed for the valuation of companies that enter the market for the first time. When the trademark right is evaluated as a revenue approach, the expected future profit is discounted to the present value (Contractor, 2001). This method is the most suitable method and the theoretical method of the trademark right evaluation because of the characteristics of the enterprise trademark for selling the product.

5. CONCLUSION

In the intelligent information economic environment, companies are concentrating on brand management, and efforts to raise corporate management performance such as maximizing profits ultimately are increasing. Rational evaluation of trademark value for revitalizing brand in the purpose of previous transaction and commercialization, financial support, investment decision making, M&A, litigation, brand strategy etc.

Brand equity once established can be recognized as a trademark and can be used as a means of financing a business along with exercise of monopoly rights. However, the lack of a model for evaluating the value of trademark rights made it impossible to use trademark rights as intellectual property rights. Therefore, this study is meaningful to suggest the valuation method by the income approach using the data that can be utilized for the rationalization and activation of the corporate trademark evaluation. This study can be applied to the trademark rights management strategy for the brand revitalization of companies such as financial transaction means in the intelligent information economy. However, it is the limitation of this study that the implications are gained through a single company, and future case study and application of various enterprise groups by size and industry should be continued.

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