



Evaluation of High-Tech Enterprises

EVALUATION DES ENTREPRISES DE LA HAUTE TECHNOLOGIE

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Received 2 October 2011; accepted 26 November 2011

Abstract

High-tech enterprise value is a measure of the overall quality of a company the most comprehensive and accurate quality indicator for assessment of its value is particularly important, the author high-tech business valuation for the problems and measures to address the challenges presented.

Key words: High-tech enterprises; Valuation; Discounted cash flow analysis

Résumé

La valeur d'entreprise de haute technologie est une mesure de la qualité globale d'une entreprise de l'indicateur de qualité le plus complet et précis pour l'évaluation de sa valeur est particulièrement importante, l'évaluation de l'entreprise auteur de high-tech pour les problèmes et les mesures visant à relever les défis présentés.

Mots clés: Entreprises de haute technologie; Valorisation; Flux de trésorerie actualisés

LIANG Biming (2011). Evaluation of High-Tech Enterprises. *Canadian Social Science*, 7(6), 245-248. Available from: URL: <http://www.cscanada.net/index.php/css/article/view/j.css.1923669720110706.063> DOI: <http://dx.doi.org/10.3968/j.css.1923669720110706.063>.

A business enterprise value is a measure of success and overall quality of the most comprehensive and accurate quality indicator. Around the goal to improve corporate value, corporate asset restructuring, mergers and acquisitions, many companies in a very short time gained can not be achieved by means of the normal operation of the rapid development. Such as the United

States, Microsoft, for a short period of 10 years from a market value of only 33 billion dollars in the development of small and medium sized companies jumped into the market value of more than 4000 billion U.S. dollars up to the world-renowned company.

1. THE HIGH-TECH BASIC CONCEPTS OF BUSINESS VALUATION

The identification of high-tech enterprises in China was determined by high-tech range. In fact we are all issued by the State Science Commission finds that the conditions and methods for high-tech enterprises to identify high-tech enterprises.

As a knowledge-intensive high-tech enterprises, high intellectual groups in a class of emerging enterprises, with a high investment, high growth, high-yield, high risk characteristics, their value must also show the value of different businesses and the general characteristics of induction as follows:

1.1 Has a Strong Uncertainty

The value of high-tech enterprises and the general value of the business compared with the strong uncertainty. This is a high-tech and high-tech enterprises by the nature and characteristics of the decision. First, the high-tech cross-discipline is the result of the development and integration, the development of leading technologies in large measure by the development. Second, the high-tech replacement faster and faster, leading technology companies have had in a short period of time may become a common technology and even backward technology, thus affecting the value of the enterprise itself. Furthermore, the development process of high-tech enterprises, the factors affecting the value of the complex and diverse. All of which makes the value of high-tech enterprise with strong uncertainty.

1.2 With the High Value of Human Resources Related

Competition among enterprises is the next talent competition, which is on the performance of the high-tech enterprises in particular. In a sense, high-tech enterprises is a high-level personnel organized according to certain rules as a form of social organization. Entrepreneurial leadership, the knowledge structure of R & D and innovation capacity, high-level management personnel of the management capabilities of high-tech enterprise survival and development, determine the rise and fall of the enterprise. There have a high degree of correlation between the value of human resources and high-tech enterprise value.

1.3 Have the High Correlation Between the Value of Intangible Assets

Hi-Tech high—tech enterprises is the commercialization of enterprises, mainly in high-tech achievements and patented. Proprietary technology and other intangible form. Therefore, the high-tech companies have patents, the amount of proprietary technology, as well as these patents, proprietary technology into commercial products, the effectiveness of a direct impact on corporate earnings, and ultimately determines the size of enterprise value. In addition, the organization system, the strength of innovation, enterprise level quality of human resources and social resources and other intangible assets on the merits of the importance of high-tech enterprise of much greater than the general business, the relationship between the survival of high-tech enterprises and development, the value of the size of the impact on the value of the size of high-tech enterprises. Therefore, the value of high-tech enterprises and the value of intangible assets are highly correlated.

2. THE CURRENT STATUS OF HIGH-TECH ENTERPRISE EVALUATION

2.1 The Problem of Losses

Under normal circumstances in the early days of high-tech enterprises are not profitable, or very little profit, which for the appraiser, it means that profits can not be calculated under the current earnings growth; but also the basic formula to calculate growth rates can not be used: $\text{expected growth rate} = \text{return on capital reinvestment rate} \times \text{the formula with two variables return on capital reinvestment rate}$ is usually calculated based on current earnings, and for losses the company can not get these two variables.

2.2 The Lack of Basis for Comparison

Most of the newly established high-tech enterprises lack a certain amount of business information, particularly financial information. This is the assessment, prediction

and inference based on the lack of convincing. Because appraisers often use past data to estimate the current input variables, such as the estimated risk coefficient, the annual working capital, sales revenue forecasts, cost estimates of rates. Even if some appraisers do not use historical data, they estimate the future rate of growth in, they always put the expectations of calculated growth rates and compared to past data, analysis is reasonable.

2.3 Industry Differences Exist

For the case of high-tech enterprises in China, the current lack of comparable companies. This is because on the one hand the high-tech's different and often difficult to find industry, technology, scale, environment and market are quite similar to comparable companies. On the other hand, China's high-tech industry has not really taken shape, so to conduct a comprehensive comparison, conditions are not ripe. The appraisers are in addition to using historical data from the comparable companies often take advantage of the information. Without this information will increase the more difficult to assess.

2.4 There is the Issue of Revenue Recognition

As high-tech enterprise product sales and services could lead to the special nature of the book does not match the actual income or income and increased risk. The most typical is the software companies and Internet companies, their revenue recognition issues in the accounting profession has aroused great controversy, and thus to assess the division of historical or current enterprise income more difficult to confirm.

3. HIGH-TECH BUSINESS VALUATION PROBLEMS

3.1 Lack of the Theory of High-Tech Enterprise Valuation

Evaluation of the enterprise value of theoretical research has been for several decades, the formation of a more extensive assessment of mature theory and methodology. However, the knowledge economy in large numbers as a class of high-tech enterprise specializing in assessment of the object is not enough emphasis, theory is weak. High-tech enterprises as a new class of enterprise groups, in addition to the common general business, but also to general business there is a considerable difference. For example, high-tech enterprises and the general development of enterprises of different trajectories, high-tech enterprises generally have a seed stage, and at various stages of maturity prior to high-tech corporate profits with little or no profit base, even in quite a long time at a huge loss state, and its stock is not able to support the lofty profit, all of which are related to general business is different from the traditional enterprise value theory can not explain very well, using the traditional method of

business valuation is not easy to evaluate it.

3.2 Assess the Lack of Experience, Assessment Methods Need to Be Studied

As late start of asset evaluation, conduct of business valuation is only in recent years started on the domestic rating agencies lack the experience of business valuation, business valuation for the case of high-tech less, basically a full new areas, there is no high-tech enterprise valuation practices and practice guidelines. In the assessment methods, there is no effective way to form a system, there are some cases that assessment methods are mostly used discounted cash flow method or the additive individual asset valuation method, the degree of their reliability and adaptation to be studied .

3.3 Assess the Structure of a Single Team, Practice Standards to Be Improved

To assess the value of high-tech enterprises, involving human resources, technical expertise, business management and other fields, which requires assessment of the team structure must be reasonable. Assessment of the financial officers of the ranks of the high side, the situation of too few engineers and technicians have not been fundamentally changed, this situation can not meet the high-tech enterprise evaluation team to assess requirements. In addition, the level of the existing practice of evaluators, despite the greatly improved than before, but for such high-tech enterprise evaluation difficult, the current standard of practice of evaluators still need further improvement. Assessment teams of high-tech enterprise valuation is an outstanding problem.

4. EVALUATION OF HIGH-TECH ENTERPRISES TO SOLVE THE PROBLEM OF MEASURES AND PROPOSALS

4.1 No Sales Revenue, Net Negative Cash Flow Business, with the Option Pricing Method

Technology assets with option features, product development, development is phased. Phased to give up the right choices, we can fully estimate the enterprise value of the technological advantages have. This technique does not produce any advantage in the current cash flow is expected in the near term can not produce cash flow, but it is valuable. Total assets of the option value of these technologies is the value of the company. Than the traditional discounted cash flow analysis, option pricing reflects the technological and competitive uncertainty, more in line with reality.

4.2 Certain Revenue and Net Cash Flow is not Necessarily Positive Business, with Net Profit of Law

In the general accounting, the own R & D expenses of

intangible assets as a management fee charged to general, not the work until the formation of intangible capital treatment. Sustainable innovative ability of high-tech enterprises is to ensure the continuation of corporate profitability. R&D expenses should be considered by future earnings made the investments, as long-term investment, directly capitalized and amortized over the appropriate period to calculate the net profit, it is a good trend in corporate profit growth estimate. The main disadvantage of net profit law is due to the depreciation policies of different business enterprises will lead to lack of comparability of net profit achieved in the high-tech enterprises in the small proportion of assets attributable to tangible assets, and amortization of intangible assets, depreciation is more unified way, to overcome net method of this defect.

4.3 Net Cash Flow Positive Business, with Discounted Cash Flow Method

Discounted cash flow continue to meet the additional investment in asset management and recovery of the dynamic process of investment, more realistic simulation of business operations in the future and ways to realize the process proceeds. This method has its limitations, for a net negative cash flow business valuation errors. The continuous development of high-tech enterprise, innovation, the company has not yet used the patent or the right of a considerable value of the product selection. Using only cash flow method would underestimate the true value of the enterprise. Option pricing model through the valuation of these assets, and then added to the discounted cash flow valuation model to calculate the value of being.

4.4 Human Resources and the Role of Continuous Innovation

Human resources in the contribution of high-tech enterprise, it is not included in the scope of assets assessment is clearly unreasonable. Human resources is difficult to quantify, but is an existential problem, and human resources in the enterprise's contribution to earnings even more difficult to measure directly reflected. Could be considered through the development of an industry demand for manpower standards, reference standards of corporate human resources to score, get a relative value of the corporate human resources rating industry, human resources needs of the standard score, reflecting the corporate human resources in the same industry comparative advantage, as the risk discount rate adjustment parameters. Adjusted discount rate of speed due to technical updates, product life cycles, intangible assets, loss of fast, continuous innovation and to reflect the long-term corporate profitability, should be used as an adjustment to the amount of expected return parameters in order to better reflect the expected business development. But it also exists the problem quantitatively, human

resources can be used similar methods to determine parameters, the relative value of continuous innovation capacity of enterprises to innovate industry-standard rating score, adjusted for the proceeds of which the amount of revenue the amount. In the discounted cash flow method used in the present value of net cash flow, net income in the amount of net income method used.

4.5 Price-Earnings Ratio Multiple of Our Current Method is not Suitable

Price-earnings ratio relative valuation multiples method is used the most in a specific way, the application environment is a more developed stock markets improve, there must be “comparable” of listed companies and average level of market pricing of these assets correct. China's securities market development is not yet perfect,

the market price reflects the relatively weak value of the company, there is no method for using price-earnings ratio multiple of the external environmental conditions. At present, even if the stock market in the United States is so advanced, the price-earnings ratio of tech stocks overvalued or undervalued in the end is still debating the issue, more of the estimated price-earnings ratio reflects the evaluator's personal preferences

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