

# Research on the Valuation Method of Internet Enterprise

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**Abstract.** Nowadays China's Internet industry is in the stage of rapid development. Internet technology has been widely applied to every aspect of social economy, involve communication, people's livelihood, transportation, retail, finance, service. The rapid development of Internet enterprises will be accompanied by financing, merger and acquisition, listing and other problems, which will inevitably involve enterprise value assessment. Since Internet enterprises have the characteristics of asset-light, unstable profits and high risks, traditional valuation methods are not applicable. This paper will analyze the characteristics of Internet enterprises and compare three different evaluation models for Internet enterprises.

## 1. Introduction

Internet enterprises refer to those enterprises that provide services and obtain revenues by using network platform and network technology. Their business and profit model are different from traditional enterprises. When we use traditional approaches to value those firms, the results usually turn out to frustrate us. Therefore we need to research on suitable value assessment for Internet enterprises. Firstly this paper discussed the definition of Internet enterprises. Secondly, we analyzed characteristics of Internet enterprises. Lastly, we introduced three modern evaluation model and compared them to find a suitable value evaluation model.

## 2. Definition of Internet enterprise

Internet enterprises are based on computer technology, using the network to provide services.

Internet enterprises include three categories:

(1) The first category is mainly engaged in the manufacturing of Internet infrastructure. These enterprises provide network infrastructure and hardware services for other enterprises, such as Huawei, China Telecom, China Mobile and China Unicom.

(2) The second category is service layer Internet enterprise, which provide services and software based on Internet infrastructure equipment. IBM, Microsoft belong to this category.

(3) The third category is terminal layer Internet enterprise. Ordinary customers can get access to these company's services and products directly. This category has a wide range, such as Google, Amazon, Baidu, Sina, and so on.

## 3. Characteristics of Internet enterprises

Internet enterprises have the following four characteristics:

### 3.1 Special assets structure of Internet enterprises

The fixed assets such as factories, machinery, equipment only account a small proportion for total assets. The main assets of the enterprises are intangible assets. However value evaluation of some intangible assets such as patent technology, staff's innovation ability are difficult. These assets are not listed on the financial statements. The traditional measurement method - cost method is often unable to measure the value of these assets.

### **3.2 Unstable income**

The operation of Internet enterprises is faced with great risks, and the cycle of product development is generally long, which requires huge financial support [1]. In the early stage, enterprises need to invest a large amount of funds in product development, staff salary and product promotion, but the income is small. In addition, in Internet industry, products update fast and new technologies continue to emerge, which will impact the existing market share and revenue. Enterprises face high operational risks and unstable earnings.

### **3.3 Focus on customer needs**

Internet profit model is rely on their own services, products and associated consumption of traffic to earn revenue [2]. Internet companies such as search engine company, video website in early stage often provide free products and services to the customers. They get the favour of customers and market share through this method, and then converts these customer resources into their own intangible assets. They make full use of these intangible assets to earn advertising revenue. Therefore, enterprise attaches great importance to customer demand. In order to obtain the customer resources, companies need to invest a lot of money. They need to rely on large data mining technology to get customers preferences, and according to these preferences to launch new products. New products development has a higher request for technology and innovation.

### **3.4 Lack of comparable data**

Most Internet enterprises have been established for a short time and have diversified businesses. At the same time, there are few listed enterprises, so it is really difficult to obtain relevant data of comparable enterprises with similar businesses and scales. Besides, Internet enterprises are high-tech enterprises, therefore they attach great importance to patented technologies and innovations. It is difficult to find the market analogue of these technologies.

## **4. Valuation Method of Internet Enterprises**

Through above analysis of the characteristics of Internet enterprises, it can be seen that traditional value assessment model-cost method and market method cannot be directly used in the evaluation of Internet enterprises. At present, we mainly adopt following three models to evaluate the value of Internet enterprises.

### **4.1 DCF model**

The discount cash flow method (DCF) regards the total discount value of net cash flow generated by an enterprise in a certain period in the future as the value of the enterprise [3]. It is necessary to determine the discount coefficient and future cash flow of the enterprise before using DCF model for valuation. However, these two factors are based on the subjective judgment of the estimator. Professional judgement will affect the accuracy of the final valuation results. In addition, in the early stage, Internet companies need to invest large amount of the money, but the DCF model does not take into account the initial capital influence on corporate value. If the enterprise is during the initial phase and cash flow is negative, the DCF model may underestimate the enterprise value. So we can get the conclusion that DCF is not suitable for value assessment of Internet enterprise.

### **4.2 EVA model**

#### *4.2.1 Definition of EVA model*

Economic value added (EVA) model is put forward in 1982 by a consulting firm as a value analysis tool. The accounting profit can't represent the real value of enterprise, because accounting profit does not consider the cost of capital. Real economic value of enterprises should be after-tax profits after deducting the cost of capital [4]. The EVA model is expressed as follows:

$$EVA = NOPAT - TC * WACC. \quad (1)$$

In the equation: NOPAT represents the after-tax net operating profit of the enterprise; TC stands for total capital; WACC stands for weighted average cost of capital. The expression of the formula reflects that when the profit obtained by the enterprise is greater than the cost borne by the total input of the enterprise, the added value created by the enterprise is the real profit. EVA model evaluates the real ability of the enterprise to create value.

#### *4.2.2 Advantages of EVA model*

Compared with other evaluation method, EVA model has the following advantages:

(1) EVA model uses the weighted average cost (WACC) in the calculation. The weighted average cost of an enterprise takes into account its debt and equity cost. This is different from the pure profit index. EVA model will encourage operators and managers of enterprises pay more attention to the long-term development of enterprises from the perspective of shareholders.

(2) The EVA model is not directly based on the profit data from the financial statements. Profit data needs to be adjusted to some extent. The adjustment mainly includes the enterprise's research and development expenses, bad debt provision, non-operating income and expenditure, impairment provision and other items. Especially, EVA requires to capitalize research and development expenses. Research and development expenses do not need to be deducted from the calculation of net profit, which is more in line with the characteristics of Internet enterprises.

(3) EVA model can better evaluate the long-term value of enterprises, because it fully considers the role and value of intangible assets in the model. It matches characteristics of Internet enterprises.

#### *4.2.3 Limitations of EVA model*

There are also some limitations of EVA model. EVA makes a lot of adjustments to the data from the financial statements. The adjustment and calculation process are complex. The workload is large. Therefore companies need to invest lots of money and time in calculation. What's more, like DCF model, EVA model also contains some subjective judgment in the evaluation.

### **4.3 CVBC model**

Corporate value based on the customers (CVBC) model is established by adding customer life cycle value theory to the traditional enterprise valuation model. The value source of Internet enterprise is the customer's resources, which can bring benefits to the enterprise [5]. Therefore the model combines each customer's profitability with the total number of customers. It also considers customers' future expected earnings, the cost paid by enterprises to provide service and customer retention factors.

One of the characteristics of Internet enterprises is that they attach great importance to customer needs and obtain profits from customer resources. CVBC model is based on customer value to evaluate the enterprise value, so this model can accurately evaluate the customer value of Internet enterprises.

But when using CVBC model, enterprises need to pay attention to the following questions: (1) Unit of customers to create profits must be able to reliably measured. (2) Evaluated enterprise can provide relevant data of customers. Enterprises need to analysis registered customer number and customer consumption history. But many enterprises lack of relevant data, which will restrict the application of CVBC model in practice.

## **5. Summary**

Value evaluation is highly important for Internet enterprises. Accurate and effective valuation method can ensure the enterprise evaluate the value accurately and make right decision. This paper discussed three different valuation methods. Each method has both advantages and shortcomings. But according to Internet enterprises' characteristics, EVA model and CVBC model are more suitable. EVA model fully considers the particularity of Internet enterprises and takes its financing model into account, so the cost of capital of the enterprise can be reasonably calculated. At the same time, the adjustment of goodwill, financial expenses, r&d expenditure and other items can more effectively reflect the enterprise's develop capabilities [6]. CVBC model focus on customer value, and

it will have great development space. In the future, enterprises can make use of big data technology to dig more customer information and provide more accurate information for evaluating enterprise value.

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