Research on the Reform of E-Commerce-Based Enterprise Financial Practice Model

Desheng Zhao, Jiaqi Xiu

Langfang Polytechnic Institute; Langfang065000, China

Abstract

With the development of e-commerce types including mobile Internet banking and calculations, the financial practice model of traditional e-commerce enterprises and operational risks are facing great challenges. E-commerce enterprises should adjust the traditional tax structure and reduce costs to achieve breakthrough in the financial practice model so as to improve the market competitiveness of e-commerce enterprises. Therefore, to explore a financial practice model suitable for their development is currently concerned e-commerce enterprises the most. This paper basically researches the reform of e-commerce-based financial practice model from the concept and characteristics of e-commerce, and proposes two sustainable growth models: Higgins and Corey to provide reference to the maximized benefits of e-commerce enterprises and the sustainable growth of their economy.

Keywords: Financial Practice, E-Commerce, Reform.

1. INTRODUCTION

1.1 Background

In recent years, the rapid development of modern Internet technologies have changed the way how people live, and encourage people to have more advanced material and spiritual needs and attention to business efficiency. So this huge technological innovation has brought many challenges to the transformation and upgrading of enterprises while offering them development opportunities. Those enterprises that have not been integrated into the Internet era will be doomed to be abandoned by the times. Enterprise financial management, as the core of enterprise operations, can be used to improve the competitiveness of enterprises in the e-commerce era, provided that it is computerized, digitized and networked. Therefore, under such economic and social background, this paper starts with the concept of e-commerce, and gradually explore the reform of new enterprise financial practice model (Zou, 2014).

1.2 Purpose

Given that e-commerce is an industry that leads China's economic development, the research on the reform of its financial practice model can help improve management efficiency, and boost the development of China's industry economy and macro-control. And in the information age that features fierce competition, enterprises as the core of modern business development, may only enhance the efficiency and scientificness of enterprise financial management by fully analysing the characteristics of enterprise financial practice in the e-commerce environment, continuously improving the financial management model, and including practice management into financial management.

2. THEORETICAL BASIS

2.1 Concept of e-commerce

E-commerce refers to the accounting and marketing economic activities on the emerging network trading platforms, including pure online commodity trading behaviours and all acts to expand market share and control
costs with the use of computer and Internet technologies such as commodity trading behaviours that helps the exhibition of samples, check of single goods, online payment, etc.

2.2 E-Commerce characteristics

2.2.1 Digitalization

All e-commerce business activities are all recorded in the digital form, and then saved in the cloud in the symbolic computer language for review at any time. Even contract agreements, signatures, etc. involved in commodity transactions are digitalized, in a way to greatly save unnecessary transaction costs and help the efficient use of natural resources and the construction of the low-carbon economy (Wen, 2013).

2.2.2 Standardization

The e-commerce network address is an advertising platform as well as a sales platform. After customers know it, all transactions occur as programmed in advance without spot business guidance. As a result, it saves a lot of manpower capital and further improves the efficiency of commercial transactions.

2.2.3 Internationalization

With the integration of the global economy and network, e-commerce can help reach any location that exists online starting from information technology. All parties involved in transactions can also have in-depth business communications whenever and wherever possible by relying on the convenience of information technology, without any time or place restrictions. Therefore, e-commerce develops very fast worldwide to the trend of economic integration. The total global e-commerce trade has been rising steadily and had reached USD 210 trillion by the late 2015, as shown in Figure 1.

![Figure 1: Global Trends in total E-Commerce](image)

**Figure 1:** Global Trends in total E-Commerce

<table>
<thead>
<tr>
<th>Building name</th>
<th>Structure type</th>
<th>Number of layers</th>
<th>Design floor elevation</th>
<th>Base depth</th>
<th>Foundation design grade</th>
<th>Foundation type</th>
<th>Building safety class</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZHONGQING square</td>
<td>Shear wall</td>
<td>Third floor underground</td>
<td>42.3</td>
<td>-15.2</td>
<td>Class A</td>
<td>Pile foundation</td>
<td>Class 2</td>
</tr>
</tbody>
</table>

3. RESEARCH ON THE REFORM OF E-COMMERCE-BASED ENTERPRISE FINANCIAL PRACTICE MODEL

3.1 Dimensional analysis of the enterprise financial practice model

3.1.1 Yield Reality Analysis
The recent development of e-commerce enterprises have attracted more investors into this field and more scholars to conduct in-depth studies on the financial practice model of e-commerce enterprises. But currently there are still many problems in the development of China’s e-commerce enterprises, so we have to summarize excellent e-commerce financial practice models in order to improve the yields of e-commerce enterprises (Pan, 2017).

It’s not that e-commerce enterprises can attract customers to win benefits simply after building an official website. They have to provide professional sales platforms, investable projects and adequate funds for development. When an e-commerce project is developed, it has to be implemented by outstanding management personnel in the enterprise, so as to obtain yields for the enterprise. But currently most of the e-commerce enterprises are not willing to spend too much money to hire professional personnel for project management, and they only want to obtain high yields under the mutual coordination of customer development, management, operation and other aspects. Such enterprises will usually be eliminated by the fierce market competition. Excellent e-commerce enterprises will focus on the mutual cooperation between project management and are willing to increase investment in human capital. They are more likely to gain high yields. Therefore, a good e-commerce project has to be fully supported by intelligence costs and sufficient capital to gain high yields (Wang, 2017).

3.1.2 Cost Control Analysis

First, when compared with other enterprises, e-commerce enterprises have lower purchase costs. They usually purchase, complete transactions online and pay directly with the online payment system. The purchase method can help effectively purchase free from any place or time limitations. Compared with traditional transactions by fax or by telephone, online purchase can reduce product costs, lower inventory costs, and improve product sales (Hu, 2017).

Second, the financial practice model of e-commerce enterprises can effectively reduce production costs in a way to help them produce products to meet the needs of people at the minimum cost in the shortest time and improve their competitiveness in the market, so as to obtain great economic profits. In addition, e-commerce enterprises should control the following costs: 1. sales of lowest-cost products based on the market demands and their own actual conditions, provided that their normal sales are not affected; 2. inventory costs, provided that they have allowed for inventory turnover and stocks of products are ensured (Zhao, 2014).

3.2 Summary of enterprise financial practice models

This paper summarizes the financial practice model of e-commerce enterprises in terms of accounting and technology transfer: From the perspective of e-accounting, different e-commerce enterprises have different accounting methods (Wang, 2014). In network transactions, to correctly handle accounting and distinguish the accounting subject is of great significance to the development of e-commerce enterprises. Enterprises will need to summarize e-reports, ensure the quality of the feedback financial information on e-commerce enterprises, and also increase account titles of original credit services so as to ensure the understandability and reliability of the accounting information. From the perspective of technology transfer, given financial control as a core part of enterprises, then it is necessary to build a reliable network system and an efficient sharing platform as well as a sales-purchase integration system, so as to enhance enterprise management and dynamic control (Tang, 2014). Therefore, e-commerce enterprises should keep up with the times, be technologically prepared, and select reasonable, scientific e-financial practice models depending on the market demands and their actual conditions, so as to gain more profits during enterprise operations.

4. RESEARCH ON SUSTAINABLE GROWTH MODEL FROM THE PERSPECTIVE OF FINANCIAL PRACTICE

From the perspective of financial practice, the ultimate goal of enterprise financial management is to maximize the interests of shareholders. In order to obtain more profits, shareholders will continue to increase sales without limit. Thus it can be seen that growth is the ultimate goal for the enterprise management in its financial practice. And for the purpose of the sustainable growth of enterprise sales, they must ensure the sustainable growth of products, assure their demands for funds, and achieve balance growth of external and internal financing while maintaining their operations and financial policy stability (Men, 2015).
4.1 Higgins model

The first person to research the sustainable growth of enterprises is Higgins, who proposed the sustainable growth model based on some assumptions and has been recognized by many scholars at home and abroad. This model has been the most effective method so far to calculate the sustainable growth, which ensures the relative stability of enterprise management and financial policy and sustainable growth of enterprise financial resources. The Higgins model mainly includes the following:

First, an enterprise issues no new stocks, limits financing channels, and uses debt financing as the main way for enterprise financing.

Second, it maintains stable dividend payment and debt ratio.

Third, it maintains stable enterprise asset management and profitability, namely, unchanged total asset turnover and sales net interest rate.

The Higgins model can be expressed as follows:

\[
SGR = W * Y * H * i
\]

Where \( SGR \) represents sustainable growth, \( i \) represents the retained yield, \( H \) represents the total asset turnover, \( Y \) represents the sales net interest rate, and \( W \) represents the equity multiplier. The model shows that the dividend policy is represented by the retained yield, the capital structure is represented by the equity multiplier, the index that reflects enterprise operation ability is represented by total asset turnover, and the index that reflects enterprise profitability is represented by net sales profits. Therefore, Higgins considered that distribution policy, capital structure, operation level and profitability are the major factors that affect the sustainable growth (Xiang, 2001).

The main role of the Higgins model is to help enterprises work out solutions to problems during enterprise operation other than pursuit of sustainable growth. We usually only use the Higgins model when the sustainable growth of an enterprise exceeds the target growth for a period of time, and adjust the corresponding variables to provide long-term financial support (Chen, 2013), including lowered dividend payment or increased financial leverage, and additional shareholder investment. When the sustainable growth temporarily exceeds the target growth, the enterprise will usually adopt capital loan to solve it. When the sustainable growth is lower than the target growth, the enterprise will need to adopt methods including reduced financial leverage and increased dividend payment to deal with idle funds (Wang, 2011).

4.2 Corey model

Corey analysed from a strategic height the enterprise investment objectives, cash flow and enterprise growth in his Corporate Strategy, and proposed the Corey model based on the following assumptions:

First, the purchase cost of fixed assets can be replaced by the positive cash flow generated by the depreciation of the enterprise.

Second, sales, current liabilities, pre-tax profits and fixed assets change in the same direction.

Third, the dividend payment and the fixed asset liability ratio are maintained stable, namely, the capital structure is basically unchanged.

Based on the above assumptions, Corey determined that the growth \( G \) and the net cash flow \( F \) have a linear negative correlation as shown in the following formula:
\[ F = (E-1)(1-U)(1+G)(1-P)\left(1+\frac{D}{Q}\right) - A_oG \] (2)

Where \( P \) represents the dividend payment, \((E-1)(1-U)\) represents the after-tax profits, and \( A_o \) represents the total assets excluding current liabilities. The Corey model suggests that the sustainable growth of the enterprise is its cash flow growth and the net cash flow increased from sales growth is equal to its cash flow. Suppose the calculation model for the sustainable growth \( G \) is as follows:

\[ G = \frac{(E-1)(1-U)(1+G)(1-P)\left(1+\frac{D}{Q}\right)}{A_o - (E-1)(1-U)(1+G)(1-P)\left(1+\frac{D}{Q}\right)} \] (3)

4.3 Model Review

The above two models are as shown in Table 2:

<table>
<thead>
<tr>
<th>Model</th>
<th>Hypothetical condition</th>
<th>formula</th>
</tr>
</thead>
</table>
| Higgins Model  | 1: enterprises do not issue new stocks, and limit financing channels. Debt financing is the main way of financing.  
2: keep the dividend payout ratio and the stability of the debt ratio.  
3: to maintain the enterprise asset management and profitability level stability, that is to keep the total asset turnover rate of net sales unchanged. | \( SGR=W^*Y^*H^*i \) |
| Corey model    | 1: the purchase cost of the fixed assets can be replaced by the positive cash flow generated by the depreciation of the enterprise.  
2: sales, current liabilities, pre tax profits and fixed assets change in the same direction  
3: keep the dividend payout ratio and the fixed asset liability ratio stable, that is to ensure the capital structure of the enterprise is basically unchanged. | \( G = \frac{(E-1)(1-U)(1+G)(1-P)\left(1+\frac{D}{Q}\right)}{A_o - (E-1)(1-U)(1+G)(1-P)\left(1+\frac{D}{Q}\right)} \) |

The Higgins model starts from the perspective of financial accounting, calculates generally on the basis of an accounting identity, and includes total asset turnover, equity multiplier, dividend payment and net sales profits as the independent variables. In the academic circle, although traditional, the Higgins model is widely used in enterprise financial practice applications as a major financial analysis tool of many large enterprises. The Corey model, proposed from the perspective of cash flow, emphasizes the connection between shareholder wealth and enterprise growth, and establishes a relationship model where enterprise growth is negatively correlated. The Corey model is complicated, but generate accurate results. This model proves to some extent that the enterprise has the best growth when the net cash flow is zero, and that excess or insufficient enterprise investment will have a negative impact on the growth of the enterprise (Wang, 2011).

Upon comparison between the Higgins model and the Corey model, the author thinks that the Corey model is more significant to the enterprise financial practice work, but it is difficult to obtain its data and there may be certain deviations. The Higgins model is more feasible, easy to collect and can generate accurate sustainable growth. Therefore, the Higgins model is used as the argument in this paper.

5. EMPIRICAL ANALYSIS

5.1 Description of variables
Testing of a company’s sustainable growth can help determine whether the enterprise has achieved sustainable growth. This paper selects 44 listed e-commerce companies during the period from 2012 to 2015 with data sources from CaiJing and database. Second, the above Higgins model is used as the tool to calculate the sustainable growth of these listed companies based on the enterprise’s total asset turnover, equity multiplier, dividend payment, net sales in the Higgins model, as shown in Table 3.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Calculation formula</th>
</tr>
</thead>
<tbody>
<tr>
<td>Growth rate of total assets</td>
<td>Total assets / final assets of the current period</td>
</tr>
<tr>
<td>Equity multiplier</td>
<td>Final total assets / initial owner income</td>
</tr>
<tr>
<td>Dividend payment</td>
<td>Dividend / net income</td>
</tr>
<tr>
<td>Net sales rate</td>
<td>Sales - product cost</td>
</tr>
</tbody>
</table>

5.2 Model assumptions

In determining whether the sustainable growth of the enterprise is similar to its actual growth, we need to test two samples. If the actual sustainable growth value is basically the same as its calculated value, then such e-commerce enterprise has achieved sustainable growth; otherwise, such e-commerce enterprise has lost control in financial practice (Zhang, 2017).

The assumptions of the model are as follows:

First, establish test hypothesis $H_0$ and alternative hypothesis $H_1$. The test hypothesis refers to the sustainable growth of the e-commerce enterprise

There is no significant difference between the actual value and the calculated value; the alternative hypothesis is a significant difference.

Second, establish the sustainable growth as per the calculation formula in the Higgins model.

Third, calculate the actual value of the sustainable growth.

Fourth, select the count of the sample $T$. It is $t$ distribution, with a degree of freedom of $n-1$. The calculation formula is as follows:

$$ T = \frac{\bar{X} - U_0}{S/\sqrt{n}} $$

Fifth, refer to the table to determine the critical value of $t(n-1)_{1-p}$, its test level $P=0.05$, so that:

$$ t(n-1)_{1-p} < |T| $$

Sixth, Compare the critical value $t(n-1)_{1-p}$ with the calculated count $T$: if $t(n-1)_{1-p} < |T|$, then accept $H_1$, reject $H_0$; if $t(n-1)_{1-p} > |T|$, then reject $H_1$, accept $H_0$.

5.3 Conclusion analysis

Through the above model calculations, the author concludes that the sustainable growth of e-commerce enterprises exceeds the actual growth. Therefore, we need to have an in-depth study of the total asset turnover, equity multiplier, dividend payment and net sales in the Higgins model, as shown in Figure 4:
Table 4 Summary of Four Indicators of E-Commerce Enterprises

<table>
<thead>
<tr>
<th>Particular year</th>
<th>Turnover of total assets</th>
<th>Equity multiplier</th>
<th>Dividend payout ratio</th>
<th>Net sales rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>0.63</td>
<td>1.8</td>
<td>0.91</td>
<td>0.20</td>
</tr>
<tr>
<td>2013</td>
<td>0.60</td>
<td>2.1</td>
<td>0.93</td>
<td>0.19</td>
</tr>
<tr>
<td>2014</td>
<td>0.59</td>
<td>2.0</td>
<td>0.86</td>
<td>0.16</td>
</tr>
<tr>
<td>2015</td>
<td>0.53</td>
<td>1.8</td>
<td>0.81</td>
<td>0.12</td>
</tr>
</tbody>
</table>

It can be seen that the total asset turnover of e-commerce enterprises had fallen year by year from 2012 to 2015; the equity multiplier had risen from 2012 to 2013, fallen in other years, but overall stable; the dividend payment rose in 2013, but had overall fallen; the net sale profits had fallen year by year, showing that the sampled e-commerce enterprises have operating conditions (Yang, 2016). Thus we can draw the following conclusions: first, the growth of e-commerce enterprises is lower than its actual value and enterprises will usually maintain high growth increasing debts and issuing stocks; second, the sustainable growth of e-commerce enterprises has dropped due to the decline in dividend payment and total asset yield, indicating a low financial practice operating ability of the e-commerce enterprises, to the extent to relatively affect their operating conditions and their future development.

6. CONCLUSION

To sum up, this paper analyses enterprise financial practice with respect to its yield reality and cost control, basically discusses the financial practice model of e-commerce enterprises, describes in details the Higgins sustainable growth model and the Corey sustainable growth model, collects the financial data of e-commerce enterprises during the 4 years from 2012 to 2015 as the analysis sample, and lays a solid foundation for strengthening the reform of e-commerce enterprise financial practice model and promoting the sustainable development of e-commerce enterprises.

REFERENCE