The Financial Risk Research of E-Commerce Enterprise Base on Harvard Analytical Framework --Taking Alibaba as an Example

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Abstract: In order to explore the e-commerce enterprises currently exist in the main financial risks,this article to Alibaba as an example, using Harvard analysis framework, from the strategic, accounting, financial and prospects of the level of analysis. The research shows, alibaba's main financial risk exists with internal strategic decision-making risk, main business single risk, credit recovery risk, then give risk prevention advice, and it is expected to provide reference for the financial risk identification and management of e-commerce enterprises.

1. Introduction

E-commerce enterprises in which the environment is increasingly complex and changeable, financial risk is currently the majority of electricity business enterprises are facing one of the major risks, but also the future development of e-commerce enterprises the most important obstacles. Therefore, it is necessary to carry out systematic research on the financial risk of e-commerce enterprises.Jeffrey Erayporth(2009) from the perspective of monetary fund and argues that financial capital and investment decisions are related to the financial risks of e-commerce enterprises[1]. Gai & Kapadia (2010) analyzes the relationship between dynamic financial markets, financial risk expansion and Internet of development, and illustrates the impetus of this relationship to the e-business operations and the unavoidable risks [2]. Feng Gaofei (2016) analyzes the financial risks in the context of Suningyun and Alibaba strategic alliances, and puts forward the specific opinions on the strategic alliance of domestic electric business enterprises [3]. Xu Yufang (2017)selected 20 listed financial business data of listed e-commerce as a sample, through the F score analysis model of e-commerce business M & A risk[4].

Based on the Harvard analysis framework[5], this paper from its environment and financial data, identifies and analyzes the financial risk of the company and puts forward some suggestions to provide reference for the financial risk management of e-commerce enterprises.

2. Alibaba case analysis

2.1 Strategic analysis

Strategic analysis is to assess the macro environment of the enterprise and to develop an internal strategic plan to better improve the profitability of the enterprise.

2.1.1 Macro - environmental changes

First of all, in the economic environment, in recent years, China's economic slowdown, consumer disposable income has been limited, consumer goods market growth slowed. Second, in the social environment, China's current urbanization rate has more than 50%, income distribution reform, the middle class-based consumer groups in the rapid formation and expansion. Finally, in the technical environment, the Internet technology and the vigorous development of logistics, making a huge change in consumer behavior, the application of new technologies may affect the development of Alibaba.

2.1.2 Internal strategic decision

At this stage Alibaba's overall strategy is to establish a world, open, cooperation the marketization, systematic and informative electricity business ecosystem. Alibaba business capacity and

profitability continues to increase, the amount of financing will also continue to increase. Therefore, when the management of investment and financing unreasonable, decision-making mistakes, Alibaba there is the risk of internal strategic decision-making mistakes.

2.2 Accounting analysis

2.2.1 Main business structure

By Table 1, Alibaba's main source of revenue is its core business, 2012-2016 annual report shows that core business accounted for more than 90%, cloud computing and Internet infrastructure, other business and less than 10% of all income, This shows that Alibaba is the main business of a single risk. With the continuous innovation of science and technology, if the core business is replaced, then Alibaba will be a crisis of survival,is one of the risks facing Alibaba.

Table 1 Alibaba main business structure table

	2016annual report	2015annual report	2014annual report	2013annual report	2012annual report
Operating income	15,827,300	10,114,300	7,620,400	5,250,400	3,451,700
Core business	13,388,000	9,195,000	6,942,300	4,998,300	3,332,700
Cloud computing and Internet infrastructure	666,300	301,900	127,100	77,300	65,000
Digital media and entertainment	1,473,300	-	-	-	-
Other business	299,700	617,400	551,000	174,800	54,000
Operating cost	5,948,300	3,435,500	2,383,400	1,336,900	971,900
gross profit	9,879,000	6,678,800	5,237,000	3,913,500	2,479,800
Gross margin (%)	62.42	66.03	68.72	74.54	71.84

Data source: Wind database

2.2.2 Accounts receivable

From Table 2, the accounts receivable in 2012-2016 continued to rise. Other receivables in 2016 reached 2,035,000 million, an increase of 1,082.8 million over 2014, showing that Alibaba credit business development speed, is expected to future accounts receivable amount will continue to grow. Due to 2016 Alipay real name users reached 400 million, assuming 0.01% of the users each occurred 1,000 bad debts, bad debts will be as high as 45 million, the higher the risk of credit recovery.

Table 2 Alibaba Accounts Receivable Table

	2016 annual report	2015 annual report	2014 annual report	2013 annual report	2012 Annual report
Total receivables	2,437,800	1,302,500	1,058,900	317,500	52,100
Accounts receivable and notes	438,800	120,900	106,700	26,900	13,500
Other receivables	2,035,000	1,181,600	952,200	290,600	38,600

Data source: Wind database

2.3 Financial analysis

2.3.1 Risk of debt service

From Table 3, Alibaba's asset-liability ratio decreased from 74.54% in 2012 to 31.4% in 2015 and 36.05% in 2016, indicating that Alibaba's total liabilities continued to decrease and the solvency was improved,which reflects the lower risk of Alibaba debt.

Table 3　Alibaba solvency chart

	2016 annual report	2015 annual report	2014 annual report	2013 annual report	2012 annual report
total indebtedness	18,269,100	11,456,100	9,736,300	7,073,100	4,754,900
total assets	50,681,200	36,445,000	25,543,400	11,154,900	6,378,600
asset-liability ratio （％）	36.05	31.43	38.12	63.41	74.54
current assets	18,251,600	13,407,000	14,210,900	6,783,300	4,316,200
Current liabilities	9,377,100	5,203,900	3,967,200	3,738,400	2,399,500
current ratio	1.95	2.58	3.58	1.81	1.80

Data source: Wind database

2.3.2 Operating risk

From Table 4, Jingdong, Amazon total assets turnover rate is high, basically more than 1. 8, compared to representative competitive enterprises, Alibaba's total asset turnover rate of the lowest, basically below 0.5, indicating his total assets turnover Slow, productivity is not strong.Alibaba can be seen on the plant, equipment and other low utilization of fixed assets, which will reduce the profitability of enterprises, there is operational risk.

Table 4　Comparison of the total assets turnover rate

	2016 annual report	2015 annual report	2014 annual report	2013annual report
Alibaba	0.36	0.33	0.42	0.60
Pcln	0.57	0.57	0.67	0.80
Amazon	1.83	1.78	1.88	2.05
JD	2.12	2.39	2.49	3.16

Data source: Wind database

2.4 Prospect analysis

The foreground analysis can comprehensively use the tools of statistics and econometrics to scientifically predict the future of the enterprise and play an important role in guiding the development of the enterprise.

According to the study of Xu Yufang [4], while the F-score model predicts the result is more timely and its reliability is higher. Therefore, this study will use F fractional model to analyze the financial risk of e-commerce enterprises.

F fractional model is as follows:

F=-0.1774+1.1091X1+0.1074X2+1.9271X3+0.0302X4+0.4961X5

Judgment criteria: F <0.0274, bankruptcy area; F> 0.0274, safe area

According to the model, from 2013 to 2016 Alibaba's financial data for its financial early warning forecast.

Table 5 F Fractional model for Alibaba's financial risk outlook forecast

	2016 year	2015 year	2014 year	2013 year
X1*1.1091	0.1942	0.2496	0.4448	0.3027
X2*0.1074	0.0023	0.0023	0.0010	0.0001
X3*1.9271	0.5345	1.2996	0.5563	0.7597
X4*0.0302	0.0536	0.0659	0.0490	0.0174
X5*0.4961	0.0537	0.1949	0.0837	0.1288
-0.1774	-	-	-	-
F	0.6609	1.6349	0.9574	1.0313
F Change situation	-59.58%	70.76%	-7.17%	-
conclusion	Safety	Safety	Safety	Safety

Data source: Wind database

From the table 5, Alibaba's financial risk forecast is in the safe area, the development prospect is good.

3 .Conclusions and Suggestions

This paper finds that the higher financial risk at the present stage includes the risk of internal strategic decision-making mistakes , The main business risk, the risk of credit recovery. E-commerce enterprises in the follow-up to avoid financial risks in the process,Focus on the following aspects of work.

3.1 Establish a sound internal strategic decision-making and supervision mechanism

E-commerce enterprises should be combined with the macro environment, make full use of internal audit techniques and procedures to monitor and report on the company's risk management, more effective in helping enterprises to implement internal management strategy,improve the risk management process, to achieve the purpose of internal audit for enterprises.

3.2 Rich main business projects

E - commerce enterprises in the development of competitive industries, it is recommended that e-commerce enterprises should join digital media enterprises and entertainment enterprises, developing of the advantages of industry, so as to achieve the purpose of reducing the main business of a single risk.

3.3 Establish a credit rating system

The existence of credit recovery risks is due to non-credit customers, share credit blacklists with e-commerce companies and financial institutions, establish a systematic credit blacklist information network, refused to low credibility of customers in the electricity business enterprises and financial institutions to consume, so that the e-commerce industry health operation.

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