The Research on the Correlation between the Asset Structure and Enterprise Value Creation—Based on Empirical Data from Manufacturing Industry in China

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Abstract
Asset structure determines the operating ability and the development potential of a company in many ways, which in turn directly affect the enterprise value creation. This paper aims to study the relationships between the asset structure and enterprise value creation. The empirical results suggest that the asset structure really does have an impact on enterprise value creation.
Key words: *asset structure; enterprise value creation; manufacturing industry; optimize structure; operating efficiency*

1 Introduction

Take a panoramic view of the current financial research field, most mature theories originate from the analysis and study of capital structure. Since the MM theory has been proposed, trade-off theory, agency costs theory, signalling theory, mastery theory and pecking order theory formed the mainstream theory of capital structure in succession. By contrast, there is little research on the asset structure, which has not yet formed a set of mature theory system, this research pattern may not be balance. As we all know, both capital and asset are included in the balance sheet, represent where the capital comes from and goes to respectively, and both of them play the important role of the operating and development of enterprise. Effective management of the capital structure helps enterprises efficient financing, and bring power for enterprise development[1]. But if you ignore asset structure management, will cause an effect on the vitality of the enterprise. Therefore, it is necessary to develop related theory research. And from the value creation perspective, assets structure management is closely connected with the enterprise value creation. The capital forms by raising money and becomes the resource of production and operating activities, in order to realize the strategic target of creating value for stakeholders[2]. After the capital enter into enterprise, has formed a variety of assets, transfered and transformed constantly in the process of operating, and finally, injected a steady stream of power into enterprise value creation. So it is very meaningful to study the relationship between asset structure and enterprise value creation.

However the existing papers mainly focus on how capital structure has impact on firm value, and the relationship between asset structure and the operating performance. Paper written on an empirical analysis of asset structure, enterprise value creation suffer severe shortages. So this paper is concerned with assets structure, and enterprise value creation, through analyzing manufacturing industry in China, to help enterprises improve the efficiency of asset management, the effect of value creation, aim at better and faster development of enterprises. Manufacturing industry is one of the pillar industries in China, however there does exist some problems and difficulties such as low utilizing efficiency, poor refund and lagged management etc. Based on this, we take the manufacturing listed corporations as research sample, and the research will help manufacturing companies optimize the property structure, improve operational efficiency and the level of corporate governance.

2 The theory analysis and hypotheses

Value management is the core of modern enterprise management, and enterprise value maximization is the ultimate goal of financial management[3]. How to make the enterprise realize value creation by using existing resources, is the question about which managers need to consider. From the perspective of management, value creation depends on macro and micro economic environment, financial and non-financial factors of the enterprise operation and management, which is a result driven by multiple factors. From an economic growth perspective, value creation is that the returns on capital investment exceed the cost of capital. Based on causality, value creation is the process that reap a high returns by efficient investment. This proves a key point for value creation is efficient investment. It requires enterprise effectively inject, allocate, operate and manage resources in the daily operating and investing activities. In order to manage enterprise resources better, firstly, we should find out the ins and outs of resources and the cycle of production and operation process, this paper will reveal the resources movement from the finance angle. From the structure of the balance sheet point of view, the capital obtained by enterprise is on the right side of the sheet, as the initial capital, they transform into assets after that. As the operating resources, assets are put into every link of production, management, and investment in enterprise, and then generate returns. After distributing a part of returns to the stakeholders, the residual become the initial resources and start a new cycle of resources again for operating activities in the company[4]. It is not hard to see , if the management of assets is effective and efficient, and the asset structure is reasonable, the enterprise will be in a value-added cycle, which is a strong guarantee for enterprise value creation. And high-quality assets structure is very important for company to become benign resources circulation, which can make quality management chain, to ensure the effectiveness of operating, investing and financing activities in companies[5]. From a financial point of view, it is also not difficult to make the hypothesis that assets structure is correlated with the enterprise value creation.

3 Research method

3.1 Sample and data collection

We select Manufacturing Listed companies (2012-2014) as the research sample and screen the sample with following principles: the samples of A Share in Shanghai Stock Exchange were selected and the samples of ST or data with missing key values were removed from the study. After the above methods of screening and sorting, we got a total of 267 observations. Raw data were extracted from CSMAR Database, and some of the needed data were obtained by formula. Show in table 1.

Table 1 – Variable description table

Category	Variables	symbol	definition
Dependent Variable	Tobin Q	Y	
Independent Variable	Inventory Ratio	X_1	Inventories/ total asset
	Accounts Receivable Ratio	X_2	accounts receivable /total asset
	Intangible Assets Ratio	X_3	Intangible asset /total asset
	liquidity Ratio	X_4	Current asset /total asset
	Cash Asset Ratio	X_5	Monetary asset /total asset
	Fixed Assets Ratio	X_6	fixed asset /total asset
Control Variable	Increase Rate of Main Business Revenue	IRMBR	Operating income growth this year/the operating income last year
	Size（Ln Total Assets）	Size	Ln Total Assets
	Capital Structure	CS	Total Asset/ Total Liability

3.2Research design

Multiple linear regression method can be applied to study the relationship between one variable and a set of variables. And this study is concerned with assets structure indicators and enterprise operating performance indicators. So, we select six indicators of asset structure which mainly reflect relative proportion of different asset categories to total assets. While use Tobin Q to represent the enterprise value creation, which can make up the shortcoming of the return on equity that it only can reflect the historical value of enterprise[6]. At the same time, Tobin Q can reflect the growth potential of enterprise, which is a comprehensive indicator of value creation. The six indicators singled out are the ratio of inventories to total asset X1, the ratio of accounts receivable to total asset X2, the ratio of Intangible asset to total asset X3, the ratio of current asset to total asset X4, the ratio of fixed asset to total asset X5, the ratio of fixed asset to total asset X6 respectively. And in order to eliminate the effects of other variables on the results, and according to the empirical research results of other scholars， We introduce increase rate of main business revenue, the size and capital structure as control

variables. The settings of each variables are as following table.

Table 2– Model summary

Model	R	R Square	Adjusted R Square	Std.Error of the Estimate
1	.534[a]	.285	.285	2.649195678

Table 3– Anova[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1994.735	9	221.637	31.580	.000[a]
	Residual	5004.004	713	7.018		
	Total	6998.739	722			

Table 4- Coefficientsa

Model 1	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	18.473	2.018		9.156	.000
X_1	-9.969	1.394	-.389	-7.153	.000
X_2	-8.108	1.429	-.284	-5.674	.000
X_3	17.994	2.874	.213	6.261	.000
X_4	8.572	1.363	.522	6.290	.000
X_5	-4.588	1.523	-.163	-3.013	.003
X_6	-1.004	.933	-.052	-1.077	.282
Increase Rate of Main Business Revenue	.092	.030	.098	3.042	.002
Size（Ln Total Assets）	-.818	.080	-.344	-10.230	.000
Capital Structure	-.058	.063	-.034	-.931	.352

3.3Establishing the model

The following multiple regression model is built on the basis of Correlation Analysis to explore the relationship between assets structure and enterprise value creation.

$$Y = \beta_0 + \sum_{i=1,2,3,4,5,6} \beta_i X_i + \beta_7 IRMBR + \beta_8 \text{Size} + \beta_9 CS + \varepsilon_0 \quad (1)$$

Among them, β_0 is the parameter, and ε_0 is the random error, and the other symbols represent the variables described in table 1 respectively.

4 Empirical analysis result

The regression analysis is run by applying SPSS.19.0 software, and the model examines the relationship between asset structure and enterprise value creation. The empirical results are shown in table 2,3 and 4. The regression result shows that the intangible assets ratio and Tobin Q has a significant positive correlation, and there is also a significant positive correlation between liquidity ratio and Tobin Q, which means that the enterprise value creation consequence will be strengthen when the intangible assets ratio and liquidity ratio increase. Conversely, the inventory ratio, accounts receivable ratio and cash asset ratio have negative correlation with Tobin Q, which means the enterprise value creation consequence will be weaken when the above 3 ratios increase. Moreover, the fixed asset ratio has no significant correlation with Tobin Q, which means the change of fixed asset ratio has little impact on the enterprise value creation. In all, the empirical analysis result shows that various proportions of assets structure have impacts on the enterprise value creation in manufacturing industry.

5 Conclusions

In this paper, we choose the listed companies of manufacturing industry from 2012 to 2014 as the research sample to study the relationship between asset structure and enterprise value creation. Based on the empirical analysis, the hypothesis that the assets structure will influence the enterprise value creation has been verified. On a smaller scale, we found that liquidity and innovation ability are very important for manufacturing companies, which means the traditional manufacturing is facing reform and transformation. For manufacturing companies, the time that put product in the first place has gone, independent innovation is also a steady steam of power for enterprise value creation. Also, for Chinese manufacturing companies, short-term solvency and the ability to manage working capital are key points of value creation, that is to say, manufacturing companies need pay attention to liquidity management, which will affect production and operating.

At the same time, too much inventory and account receivable will influence value creation reversely in manufacturing companies. We analysis and believe that inventory takes up a certain amount of money and resources, inefficient inventory management will affect each link of procurement, production and sales, and then damage the enterprise value. So, efficient inventory management can balance company’s funds, and help company enhance the ability to adapt the market. It is also the same to account receivable, which will impact on the liquidity of the company, also the value creation ability. As for cash asset ratio, although it demand constantly updated equipment, technology and process when the enterprise expand, and in market economies, any resources gained need to be paid in cash, in manufacturing industry, there is not strong demand for cash assets. It may be related to production cycle exist in manufacturing companies, which result in periodic input and output in product process. So, cash assets ratio should be reduced reasonably.

In this study, we found that there is almost no relationship between fixed assets ratio and

value creation. We speculate that it may because at present, the fixed assets structure in manufacturing industry is relatively stable. For the whole industry, fixed assets invest is not the core method of enterprise development. The industry is in weakness, and it is facing industry transformation, which means if the enterprise has not determine development direction of the future, invest fixed asset blindly is irrational. In summary, asset structure management can influence enterprise value creation, and this study can offer some reference and suggestions for China's manufacturing industry.

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