

The Impact of Asset- Light Strategy on Companies' Profitability

Xingkai Yu

College of Economics, Jinan University, Guangzhou, China
Email: jnuyxk@sina.com

Abstract. With refinement of social division of labor, business model undergoes profound changes. Compared with the traditional heavy-asset business model, a new asset-light business model is now being widespread through market and entrepreneurs. To put it simply, asset-light companies always regard knowledge, technology and brand as their core competence, which focus on R&D and marketing these two high value-added sectors. This paper uses the data of listed companies in China during 2001-2016 as the research sample, and empirically examines the relationship between asset- light strategy and companies' profitability. Empirical results show that asset-light strategy has no significant effect on companies' profitability. This may be related to Chinese unique economic environment.

Key Words: Asset-light, business mode, profitability

1 Introduction

The National Development and Strategy Research Institute of Renmin University of China recently released the report--Analysis and Forecast of China's Macroeconomics from 2014 to 2015. The report shows that macroeconomic data, such as the growth rate of GDP, is continuously falling under the influence of weak external demand, declining domestic demand, and the periodic adjustment of real estate. At the same time, many unfavorable factors, such as the rising price of raw materials and the demographic dividend that gradually disappeared in China, have caused some traditional manufacturing companies in China to face enormous difficulties. Many companies have encountered bottlenecks during the operation.

Chinese central bank usually implements loose monetary policies to stimulate investment by reducing the benchmark interest rates for RMB deposits and loans of financial institutions and open market operations. However, judging from the current economic environment, these measures cannot fundamentally solve the problem. The problem of the companies' own development cannot be solved by providing it with a loose monetary environment and satisfying its funding needs. Because the external environment changes that companies face are no longer gradual, but sudden and accidental changes occur, the boundaries of traditional industries become more and more blurred, and changes in customer demands also make the product life cycle become shorter. The strengthening of competition in the market has also made the patterns and rules of business operations more and more confusing.

However, under this ever-changing market environment, the Apple Inc, Haier Group and Alibaba Group, etc. have achieved outstanding performance in the fierce market competition. One of the common characteristics of these companies is that they have adopted asset-light business model. Specifically, the asset-light business model refers to a special business mode in which the company focuses its business on product development and marketing and outsources other services [1-3]. From the historical financial data of such companies, we can see that the development rate is very fast. The reason may be that asset-light companies focus on the core value of the high value-added industrial chain and outsource the low value-added links to other companies [4].

In the case of many successful asset-light business models, more and more companies are eager to help them out of the current predicament by mimicking this business model. The most typical companies are that Vanke Real Estate, the boss of the real estate industry, has been forced to transfer its asset-heavy business model to asset-light business model under the environment of the profit space of the real estate industry become smaller. At the same time, the rise of e-commerce has also made the business model transition becomes easier. Under this trend, many asset-heavy companies want to imitate Vanke Real Estate's development strategy. However, some researchers have shown that asset-light business model cannot significantly affect the companies' profitability, and they think that asset-light business model itself does not form the exclusive resources of the company [9]. The reason why the well-known asset-light

companies can achieve excess profits is because they have accumulated exclusive resources upstream or downstream of the value chain before or after they conducted the asset-light business model.

Face with this reality, I really want to know does the asset-light business model really improve companies' profitability as people expect? This also requires us to further explore.

2 Literature Review

Yang et al. (2007)[5] argue that assets-light include companies' experience, standardized process management, companies' branding, customer relationships, human resources, and companies' culture. They point out that asset-light companies can operate in two ways: One is to transfer or outsource heavy asset business to other companies and concentrate on doing high-value-added part. The second way is to acquire some of the equity of other companies and use their limited capital to export the brand and management model for the company.

Zheng (2008)[6] uses the PPG company as the research object and analyzed the features of the PPG asset-light business model through three aspects: the internal management structure of the company, the partner interface, and the customer interface. What PPG controls is not the entity part such as production, distribution, logistics, etc. Instead, it controls a link of information integration. PPG is a resource integrator. However, under this low-budget business model, it is difficult for companies to effectively ensure the quality of product. Because there is a problem of information asymmetry between companies and upstream suppliers. So, the quality of products provided by upstream suppliers is difficult to guarantee

Surdu (2011)[7] believes that the asset-light business model is an effective business model that can generate higher profits with a small amount of capital and fixed assets, and thus realize the rapid development of the enterprise. Specifically, the asset-light business model is to outsource non-core business to others, rely on supply chain services to manage rapid expansion of sales channels for companies, and companies will focus on product design, R&D, sales, service and brand promotion a high-profit industrial chain stage.

Dai (2012)[2] uses the financial data of Apple Inc. from 2001 to 2011 as the research sample and analyzed the basic points of Apple Inc's asset-light business model from the perspective of financial strategy driven. Combining the profit model, companies' value and financial strategy theory, he sums up the main financial features of asset-light business model which include streamlined production with standardized components, short supply-chain, fast inventory turnovers, high cash reserve and operating assets, small fixed assets investment, extensive investments in R&D and retail stores, acquisitions of firms with relevant technologies, and internal financing strategy.

Sohn et al. (2013)[8] examine the theoretical and empirical effectiveness of the Asset-Light and Fee-Oriented (ALFO) strategy. The results of this article indicate that expanding fee business and decreasing fixed asset intensity can effectively lift profitability.

Wang et al. (2015)[9] use the date of Chinese manufacturing firms from 1999 to 2007 as the research sample and constructs the asset-light measure variables by employing data like proportion of fixed assets and proportion of selling expenses and other indexes to study on the effect of asset-light on profit margin through panel data model. The result shows that asset-light business model cannot significantly increase firms' profit margin.

Zhou (2016)[10] argues that the profit model of the asset-light was driven by financial strategy, and the business model will need to match the financial strategy.

In general, most of the current literature on asset-light only has a preliminary study on theoretical, and very few relative study on empirical.

3 Empirical Analysis

3.1 Sample Data Selection and Processing

This article uses the data of listed companies in Shanghai and Shenzhen stock exchange during 2001 to 2016 as the research samples. These data come from the CSMAR database. This article removes companies which were marked with ST and abnormal data.

3.2 The Model

In order to explore whether the asset-light business model can improve the profitability of the company, this paper establishes a panel regression model for empirical testing. The regression model is as follow:

$$profitrate_{i,t} = \alpha_1 type_{i,t} + \alpha_2 X_{i,t} + \varepsilon_{i,t} \quad (1)$$

where $profitrate_{i,t}$ is dependent variable, $type_{i,t}$ is independent variable indicating whether the company conducts asset-light business model. The traditional enterprise will outsource the non-core manufacturing process and focus on supply chain management and brand building, which can successfully realize the asset-light business model. So, the ratio of fixed assets will reduce and the ratio of intangible assets will increase. If the company meets the following two conditions at the same time, it can be considered that the company implemented asset-light business model in the year: ①The proportion of fixed assets (the ratio of fixed assets to total assets) is in top 20 % in the industry that company belong (from small to large). ② The proportion of intangible assets (the ratio of intangible assets to total assets) is in bottom 20% (from small to large). If the company implemented asset-light business model in the year, $type_{i,t}$ will be set to one and zero otherwise. $X_{i,t}$ is the collection of all control variables. It includes asset-liability ratio, company size, the operation term of company, year (dummy variable) and industry type (dummy variable). $\varepsilon_{i,t}$ is stochastic disturbance. The specific definitions of all variables are shown in table 1, and the descriptive statistics of main variables are shown in table 2.

Table 1. The specific definition of all variables

Variable Name	The Method of Calculation
profit rate	operating profit / operating income
type	one or zero
asset-liability ratio	total liability / total asset
company size	the logarithm of total asset
the operation term of company	year of statistic minus year of establishment
year	one or zero
industry type	one or zero

Table 2. The descriptive statistics of main variables

Variable	Mean	MAX	MIN	SD	N
profit rate	0.083	552.838	-78.517	3.860	26489
type	0.028	1	0	0.164	26489
asset-liability ratio	0.466	41.939	0.007	0.457	26489
company size	21.704	28.509	16.117	1.277	26489
the operation term of company	14.141	66	1	5.722	26489

3.3 Regression Results

This paper adopts the empirical method of mixed linear regression and the empirical results are shown in table 3. Regression results show that the t value of $type_{i,t}$ is -0.52. So, there is no evident that asset-light business model can significantly increase companies' profitability. This result is consistent with the finding of Wang et al. (2015) [9].

Table 3. The regression results

Independent variable	Coefficient	Standard error	T value
$type_{i,t}$	-0.076	0.146	-0.52
asset-liability ratio	-0.641***	0.053	-12.07
company size	0.085***	0.020	4.13
the operation term of company	-0.003	0.005	-0.66

Considering that reducing the ratio of fixed assets or raising the ratio of intangible assets may affect future profit rate, I use $type_{i,t-1}$ as independent variable and try to analyze the impact of asset-light business model one year ago on current profits rate. The regression results are shown in table 4. From table 4 we can see that the t value of $type_{i,t-1}$ is -1.30. So, the asset-light business model also cannot significantly increase companies' profitability.

Table 4. The regression results

Independent variable	Coefficient	Standard error	T value
$type_{i,t-1}$	-0.213	0.164	-1.30
asset-liability ratio	-0.653***	0.058	-11.33
company size	0.090***	0.023	3.91
the operation term of company	-0.002	0.006	-0.42

3.4 Robust Test

In order to test the robustness of the empirical results, I use roe as the proxy variable of companies' profitability. The regression results still show that the asset-light business model cannot significantly increase companies' profitability.

4 Analysis

According to the above regression results, the asset-light business model does not significantly increase companies' profitability as most scholars expected. But, why is the asset-light business model so popular with entrepreneurs? Can asset-light companies earn more profits? Is the reason for this result related to Chinese unique social environment? Based on these, this section will analyze the above issues.

4.1 Legal Environment

The reason why most asset-light companies focus on R&D and sales these two high-value-added is that companies' brands and high-tech productions can bring a large number of profits to them. For example, American Apple Inc. has the world's top R&D team which can bring high economic benefits to the continuous updating of its products. Its brand has been deeply rooted among consumers all over the world. As a result, Apple can confidently assign its low-value-added manufacturing process to other companies. This is inseparable from the perfect legal system of the United States. Since the United States introduced the Constitution in 1789, it has successively formulated laws such as the Patent Law, the Trademark Law, the Copyright Law, the Anti-Unfair Competition Law and the Internet Law to protect American intellectual property rights. In contrast, the protection of intellectual property rights in China is very small, and the cost of infringing the intellectual property rights of others is far less than the benefits that infringers can obtain. Therefore, under this legal environment, domestic counterfeit products are rampant, and many companies are seriously lacking the motivation for innovation. According to the survey data, Chinese investment in R&D expenditures is very low. Its total R&D expenditure is only one-thirtieth that of the United States and one-eighth of Japan's. At such a low level of R&D costs, companies' brands and high-tech productions can not bring about additional economic benefits in the fierce market competition. That may explain the famous Needham Puzzle¹ to a certain extent.

4.2 Soft Budget Constraints of Listed Companies

According to the table 3 and table 4, whether I use $type_{i,t}$ or $type_{i,t-1}$ as the independent variable the company size has a significant positive impact on companies' profitability while the asset-liability ratio has a significant negative impact on companies' profitability. So, we need to find the reason why this strange

¹Why did the industrial revolution not occur in China in the fourteenth century?

phenomenon occurs in China. Many scholars' research shows that Chinese listed companies prefer to get loans from commercial banks, and the debt of listed companies in China is a soft budget constraint. Furthermore, listed companies can easily obtain loans from banks because of the abundant strength. In contrast, many SMEs face the hard budget constraints. Once the SMEs' capital chain ruptures, it may drive the company to seek bankruptcy protection. And the bankruptcy of the company will eventually put the business manager's position at risk. Therefore, when the business manager uses financial leverage to run a company, he will make full use of funds to increase the rate of return on capital. And eventually increase the profitability of the company. Under the "hotbed" of soft budget constraints, business operations will lack enthusiasm and most of the executives of state-owned listed companies are basically appointed by government departments instead of the market, even if the company has a financial crisis. Managers do not need to take great responsibility for this result. So it is difficult for those companies to improve the profitability.

4.3 Asset-Heavy Companies' Production Cost Is Low

4.3.1 Cheap source of labor

Due to the level of economic development, there is a large amount of rural surplus labor in China. The labor market in China has long been in an imbalanced state of oversupply. Moreover, compared with the strong unions in other developed countries, such as the Europe and the United States, Chinese labor unions are almost in name only. The desire of workers to raise wages cannot be achieved easily. Therefore, the shortage of the social labor security system and the labor surplus are the main reasons for the low-priced labor in China. And a large amount of money has flowed into companies that focus on producing labor-intensive products. Eventually, the asset-heavy companies can gain more profitable space.

4.3.2 Cheap source of land

In order to increase their own GDP, local governments in China often use cheap land to attract businesses to invest, and land investment is an important investment that real estate companies and manufacturing companies needed. The government's sale of land to the company at the price of "cabbage" can greatly reduce the cost of apportioning each finished product. Companies that have acquired cheap land have also received potentially huge benefits.

4.4 The Inner Managing Ability of Companies Is Low

The enterprise management in developed countries has a history of nearly one hundred years from the stage of scientific management to the modern management stage. It has rich experience in organizing production, department coordination, and employee performance incentives. However, the management system of many companies in China has its own shortcomings. The incentives for employees are insufficient. The personnel of the company's executive management are innumerable and inefficient. This is a serious problem for most of the asset-light companies. Just like the high-tech productions and brands, the human capital is also the core competitive factors of asset-light companies. Poor corporate internal management will not only increase the cost of labor costs but also reduce the company's R&D capability, and eventually affect the profitability of the company.

5 Conclusions and Suggestions

5.1 Conclusions

Judging from the analysis of case studies about asset-light business model by many scholars, asset-light business model which includes patents, knowledge, technology and brand et al. is an effective and new type of business model. This model is also a trend of corporate transformation in the future. In order to verify the above statement, this article empirically analyzes the relationship between asset-light business model and companies' profitability by using the data of Chinese listed companies from 2001 to 2016. But the regression results show that the asset-light business model does not significantly improve the profitability of companies. That may be because under the special market environment in China, and there are still many obstacles that hinder the further development of asset-light companies. In order to enable asset-light

companies to truly play their unique charm, The government needs to optimize the external environment, and companies must improve their capabilities in all aspects.

5.2 Suggestions

Firstly, only a well-established legal system can provide reliable protection for intellectual property, and the unique technologies and brands of asset-light companies can survive for a long time. The relevant laws for the protection of intellectual property rights should crack down on pirating other people's technological achievements and misappropriating other people's trademarks. At the same time, government and other relevant departments should strengthen supervision of the market, effectively deal with related cases of infringement of intellectual property rights which can warn speculators in the market.

Secondly, as the state-owned companies generally bear the policy burden imposed by the government companies' budget hardening, the government must save those companies when they get troubles. Moreover, because of the asymmetry of information, government cannot measure the degree of loss caused by the policy burden it gives to the company. So, stripping the policy burden that companies undertake is the key to hardening corporate budget constraints.

Thirdly, the work of investment promotion by local governments should be highly efficient, open, and transparent. In the process of promoting urbanization, the government should eliminate official corruption, and let the market decide the price of land which can maintain the normal operation order of the land factor market. Similarly, for the labor market in China, government must further improve the labor security system which can safeguard the interests of laborers.

Fourthly, in the era of rapid development of technology, technology and talent are the core competitiveness of a company. As an asset-light company, it should pay more attention to talent excavation and training.

Fifthly, asset-light companies can devote themselves to the construction of corporate culture within the financial budget. They need to enhance corporate social responsibility which can expand their own brand influence in the market. Meanwhile, companies must constantly supervise those outsourcing companies which provide finished goods to consumers. Only in this way can the quality of products be effectively guaranteed.

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