

# Analysis of the Influence of Digital Economy on DingLi's Profitability

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**Abstract.** With the “2025 Chinese manufacturing” is put forward, the application of digital economy in our country manufacturing industry more and more widely, the extraordinary role in many manufacturing enterprises. Profitability is the ability of enterprises to make full use of the existing economic resources and get the best benefits. Whether they are listed or non-listed company's investors and operators are highly valued. Taking Zhejiang Dingli machinery Limited by Share Ltd as an example, this paper analyzes the application of digital economy of the company, making the brand image of the company more distinct, optimizing the allocation of resources, increasing R&D investment, improving product quality, and influencing the company's financial income and profitability.

## 1. Research Background and Significance

The emergence and development of the new generation of network information technology, represented by cloud computing, big data and "Internet+" and the continuous integration with the real economy have changed the existing production and operation modes of the service and manufacturing industries, promoted the transformation and upgrading of manufacturing industry from the traditional production and operation mode to digitization and intelligence, thus opening a new era of digital economy. As a new economic model, the digital economy takes advantage of big data, cloud computing and the Internet to play a technological advantage in the allocation of production factors. In the process of integration and development with the manufacturing industry, the digital economy involves every link of manufacturing industry and the production process of products step by step, liberates labor force, causes the change of resource allocation mode, releases the innovation potential of internal and external resources of enterprises, and makes the production activities of enterprises more dynamic, accelerates the production cycle, while changing the traditional sales and collection models. Digitization has brought many changes to the manufacturing industry. In this paper, by taking the digital economy and intelligent manufacturing pioneer Dingli Company as the research object, discusses what aspects does the digital economy affect the profitability of the manufacturing industry, how the digital economy acts on the real economy and whether it can promote the transformation and upgrading of enterprises or enhance their profitability.

## 2. Relevant Theories Summary

### 2.1 The meaning of digital economy

The section headings are in boldface capital and lowercase letters. Second level headings are typed as part of the succeeding paragraph (like the subsection heading of this paragraph). Digital economy refers to a new economic form. Different from the planned economy and market economy, digital economy is an economic model in which digital technology plays a leading role, the network information technology is widely used and brings about the fundamental change of the whole economic environment and economic activities. With the development of Internet and information technology, the transactions between producers and consumers on the network are increasing rapidly.

The business model of the digital economy works well because it not only optimizes the production and operation mode of enterprises, but also facilitates consumers.

The essence of digital economy is Informatization. Informatization refers to the cultivation and development of new productive forces represented by information tools such as computers and the Internet, thus causing changes in the economic forms of the whole society. Therefore, the digital economy has three characteristics: quickness, high permeability and self-expansion. Because the value of the digital economy benefits from the popularization of network technology, that is, the benefit of the digital economy increases exponentially with the increase of the users connected to the network, and the situation that "the stronger become stronger and stronger, the weaker become weaker and weaker" occurs.

## **2.2 Theoretical analysis of the influence of digital economy on profitability**

The emergence of digital economy has brought a certain degree of influence to all kinds of enterprises. For manufacturing industry, informatization has driven industrialization, promoted the replacement and upgrading of industrial structure, while the combination of data and business has improved the efficiency and profitability of enterprises. The application of Internet technology is beneficial to expand the market of the enterprise, increase the availability of information, reduce transaction costs, improve production efficiency, consolidate the stability of enterprise profitability, and enhance the competitiveness of enterprises. The wide dissemination of information technology promotes the improvement of the quality of labor because with the help of digital network technology, the personal ability can be expanded, the innovation ability of enterprises is strengthened, and the sustainability of enterprise profitability is ensured.

## **3. The influence of digital economy on the profitability of Dingli company**

### **3.1 Basis information of Dingli Company**

Dingli Mechanical Co., Ltd., founded in 2005 (hereinafter referred to as Dingli Company), is committed to the research and development, manufacturing, sales and service of all kinds of intelligent aerial. The company is famous for its high-tech, high-end equipment and high growth, which is the domestic aerial work platform leading enterprise and the first listed company of this industry. Dingli company follows the new model of Industry 4.0, relies on scientific and technological research and development, continuously enhances the core competitiveness, explores the new development path of manufacturing enterprises, and leads Chinese manufacturing to digitization and informatization.

Since its establishment in 2005, the company has maintained a steady financial position and maintained the industry advantage with high quality product quality. Financial data from 2015 to 2017 (see Table 3-1) shows that the company's main business revenue, profit and other indicators have maintained a good momentum of growth. Besides, the reasonable use of financing also ensures the company's long-term and steady development.

Table 1. 2015—2017 Key Financial Data of Dingli Company Units: 10,000yuan

| Items                 | 2015   | 2016   | 2017   |
|-----------------------|--------|--------|--------|
| Main Operating income | 47915  | 69466  | 113918 |
| Operating profit      | 19393  | 28805  | 46671  |
| Total profit          | 14763  | 20600  | 33298  |
| Shareholders' equity  | 91664  | 108581 | 220251 |
| Gross liabilities     | 17227  | 28549  | 57605  |
| Total assets          | 109493 | 137129 | 277856 |

Data source: NetEase Finance

### 3.2 The analysis of the influence of digital economy on the profitability of the company

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#### 3.2.1 The influence of digital economy on operating profitability

Since its establishment, Dingli Company has paid attention to scientific and technological innovation and followed the road of intelligence. With the arrival of the era of "Internet+" and "Industrial 4.0", Dingli Company seizes the opportunity to change the traditional production model and accelerate the transformation of enterprise while adhering to the accumulation of technology at the same time. The digital manufacturing mode makes Dingli Company improve the stability of production process and product quality, ensure the reputation of the company in the industry, and improve the operating profitability of the company.

The main indicators to measure the operating ability of an enterprise are: gross operating rate, net operating interest rate and cost utilization ratio. This paper collects relevant data of operating profitability measurement indicators of Dingli Company from 2015 to 2017 (see Fig. 1) to evaluate the business performance of the company during this period.

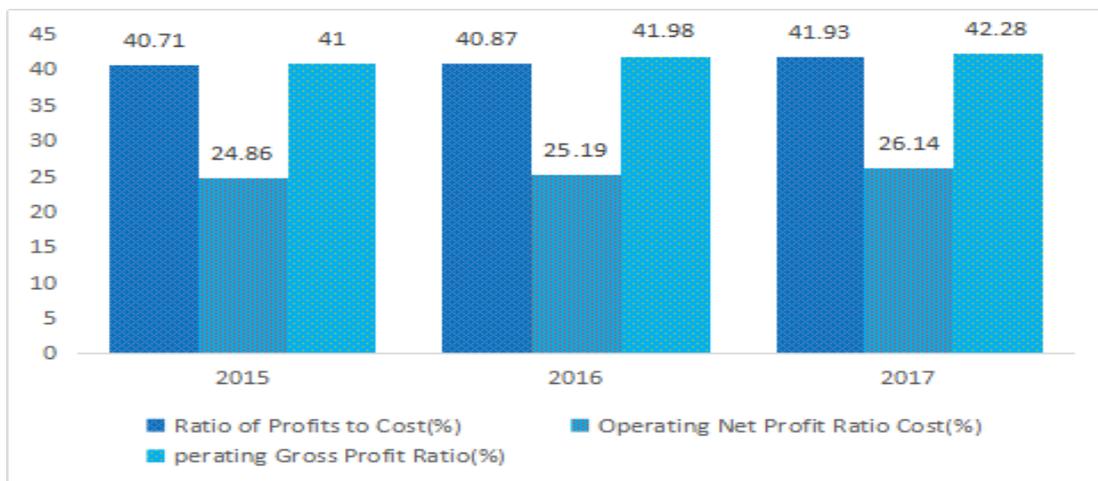


Fig. 1 Data on Operating Profitability of Dingli Company from 2015 to 2017

As shown in Fig. 1, the ratio of profits to cost has remained above 40% from 40.71% in 2015 to 41.93% in 2017, showing a slight increase, which indicates that total profits are growing faster than costs. This reflects the decreasing trend of the cost and expense of the company and the cost control is getting better and better, which benefits from the networked supply chain platform, which improves the supply efficiency, saves time and redundant human resources, and reduces the cost, so that the Internal control is constantly strengthened. Due to proper cost control, the operating net profit ratio continued to rise steadily, rising from 24.86% in 2015 to 26.14% in 2017. The operating gross profit ratio has been kept at 40%, and there was no decline in gross profit ratio due to opening up the market at reduced prices, which shows that the company has complete products, meets the market demand at different stages, and maintains a reasonable gross profit ratio.

### 3.2.2 *The influence of digital economy on the profitability of capital management*

In March 2015, at the Third Session of the 12th National People's Congress, Premier Li Keqiang put forward for the first time in his government work report an action plan for the "Internet+": promoting the integration of mobile Internet, cloud computing, big data, Internet of things with modern manufacturing, promoting the healthy development of e-commerce, industrial internet and internet finance, and guide internet enterprises to expand their international market. Dingli saw the communication value of the Internet and realizes that compared with Internet enterprises, what traditional industries lack is not corporate culture or ideas, but not a regular combination of this content and dissemination and promotion in effective platforms, because only in this way can let more potential customers pay attention to and recognize Dingli Company, and the potential market can be maximized. In Internet marketing, Dingli Company effectively utilizes the power of the network to present an image of a company that pays close attention to its customers' satisfaction, has a good sense of responsibility, and has a warm attitude to the public, thus maintaining enough public attention for the subsequent listing of the company, attracting a large number of investors, and improving the company's profitability in capital management.

This paper selects the return on net assets and earnings per share (see Table 2) and analyzes the capital operating profitability of Dingli Company in the past three years.

Table 2 2015—2017 Capital Profitability Data of Dingli Company

| Report Date                       | 2015  | 2016  | 2017  |
|-----------------------------------|-------|-------|-------|
| Basic earnings per share (yuan)   | 0.83  | 1.08  | 1.73  |
| Weighted return on net assets (%) | 16.78 | 17.48 | 22.14 |

Data source: NetEase Finance

As shown in Table 3-2, the return on net assets and earnings per share of Dingli Company are on the rise from 2015 to 2017, which indicates that the company makes the utmost of the various types of funds raised after the listing, takes advantage of the digital economy and uses information technology, Internet resources to expand market size, introduce outstanding professionals, improve production efficiency, and enhance the profitability of enterprises. The two indicators show an increasing trend, indicating that the company has a strong capital operation ability, a relatively good profitability, sufficient potential for subsequent development, large domestic and foreign market demand, and an expectable prospects of the industry development.

### 3.2.3 *The influence of digital economy on the profitability of asset management*

By taking the fast train of the digital economy, the company uses Internet information technology, captures talents in all stages of products research and development, and firmly promotes the strategic layout of "cutting-edge technology, intelligent production, high-end products and international market", better integrates the digital economy into each stage of the business operation process. With the energy of innovation, the company won the top 100 high-tech enterprises in Zhejiang province in 2016. As the company is also a key high-tech enterprise supported by the state, these greatly reduces the annual R & D expenditure and income tax burden of the company. While the digital economy makes the company's operating income increasing, the related cost is reduced by the effective use of digitization, which makes the total profit increase year by year, and enhances the profitability of the enterprise in the aspect of asset operation.

The analysis of asset management ability is mainly to analyze the ability of enterprise to organize, manage and operate all assets to generate profits. This paper selects three indexes of total asset profit margin, total asset net profit rate and the rate of return on total assets, and collects specific index data (see Fig. 2).

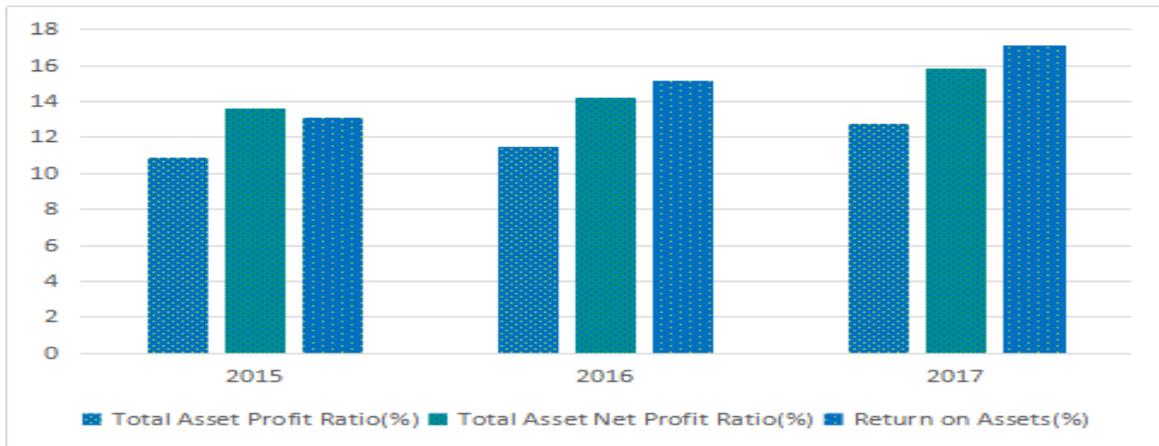


Fig. 2 2015-2017 Dingli Company Asset Profitability Data

The total assets profit ratio of the company gradually increased after it went public in 2015, which shows that the company has a better utilization of its assets. All kinds of high-altitude equipment and various production lines of equipment are the company's main assets. Making use of the digital economy to develop digital production, intelligent manufacturing to improve production efficiency of various production lines, improve the stability of equipment parts operation, liberate heavy labor resource consumption, analyze and mine the data of production process, and optimize manufacturing process can enhance the efficiency of asset use, improve production capacity, and increase profit sources. The total assets net profit ratio increased from 13.65% in 2015 to 15.81% in 2017, which shows that the company has made full use of the policy advantage since it was approved the national high-tech enterprise in 2015 and increases its R & D investment, greatly improves the input-output ratio of products, and enhances the profitability of enterprises. The return on total assets also showed an upward trend from 2015 to 2017, indicating that the company's net profit increased year by year, and the extent of asset utilization was also enhanced by the promotion of the digital economy. In the past three years, these three indicators have all shown an upward trend, which shows that the company improved its ability to use its own assets by applying advanced technology and talents since its listing, which also reflects the company's good development trend in the future, the higher and higher enterprise management level, and the entering of the intelligence time.

#### 3.2.4 The influence of digital economy on income quality

From Fig. 3 and Fig. 4, it can be seen that from 2015 to 2017, the surplus cash guarantee multiple, net profit and operating cash flow of Dingli Company are all gradually increasing, especially from 2016 to 2017, in which the net profit and net cash flow of business activities are rising steeply, which reflects that the digital production and manufacturing mode, the propaganda of network marketing and the layout development of domestic and foreign markets makes the net profit and cash flow of business activities rise. What's more, the increase in cash flow of operating activities is greater than the increase in net profit, which indicates that the company has greatly developed its business of selling equipment during this period, and to some extent due to big data's extensive application and the combination of data and business, which improve the operation efficiency and profitability of enterprise, change the profit model of enterprise, and promote the intelligence and digitization of enterprise. It makes the cash guarantee multiple of earnings rise from 0.81 to 1.23 from 2015 to 2017, which indicates that the earnings quality is good, the liquidity is abundant, and the profitability is strong.

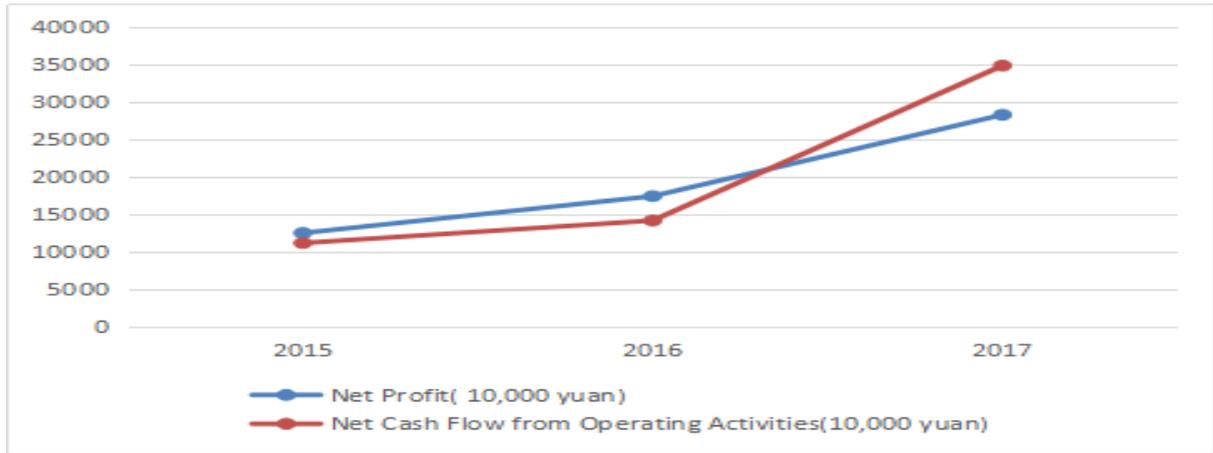


Fig.3 2015-2017 Dingli Company Surplus Cash Guarantee Multiple

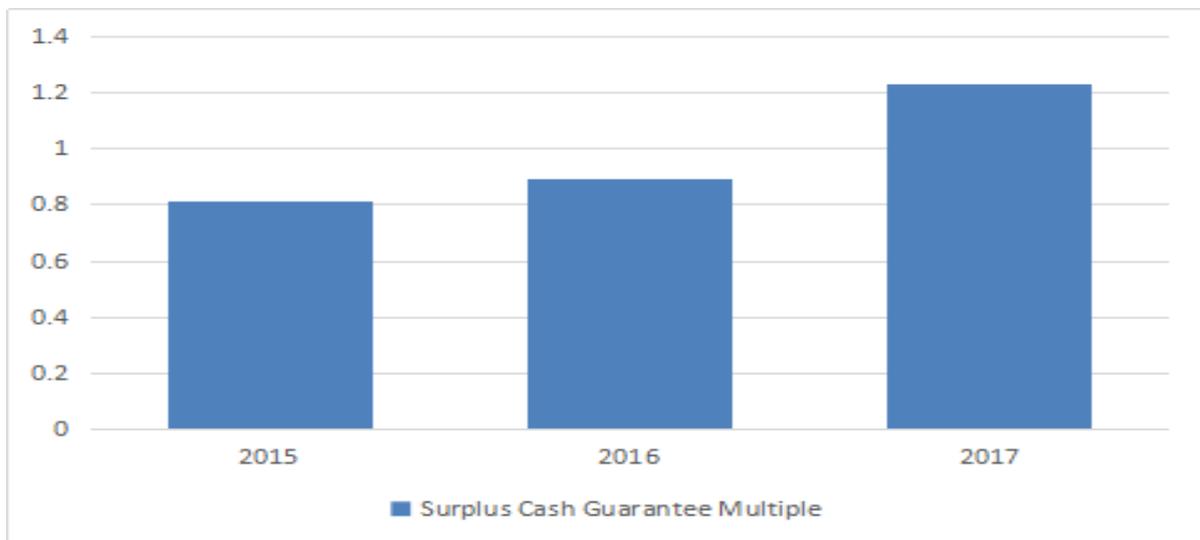


Fig.4 2015-2017 Dingli Company Net Profit and Operating Cash Flow Data

#### 4. The Experience Popularization of the Application of Digital Economy in Dingli Company

To sum up, Dingli Company adheres to the road of intelligent mechanical equipment, responds to the call for innovation, modestly learns the advanced high-altitude equipment technology from abroad. Since the arrival of the era of "Internet+" and "Industrial 4.0", the company seizes the opportunity and grows rapidly, effectively uses the Internet to enhance brand awareness, takes advantage of "Belt and Road" policy opportunities, uses the increasing of investment, jointly R & D and other methods to further expand the market. Besides, Dingli makes use of big data technology, improves the production line intelligence level and product competitiveness, introduces outstanding technical talents, breaks the bottleneck of innovation chain, optimizes the quality of manufacturing chain and safety quality, improves operation efficiency and service quality, so as to enhance the company's profitability, and strengthen the competitiveness of the enterprise.

According to the above analysis of the digital economy's influence on the profit of Dingli Company, the experience of Dingli Company's application of digital economy can be popularized in other manufacturing enterprises. First of all, it is necessary to rely on industry associations, large Internet enterprises, focus on dominant industry, integrate R & D resources in the industry, build an open, shared industrial Internet platform. Secondly, we should guide suppliers and partners to use advanced information technology and industry talents to develop and build large enterprises industrial Internet platform. After that, the sharing platform of internal production line is constructed. The production workshop and R & D department maintain the sharing of application data of parts and

components to improve the efficiency of supply chain, save time and cost, and optimize the competitive ability of enterprises. At the same time, it is necessary to improve the digitization quality of employees in manufacturing enterprises. Within the enterprise, regular training and continuous learning should be conducted to train grass-roots employees in intelligent machine operation and practical operation of information technology, so as to enhance their working quality, reduce the resistance to the application and popularity of intelligent manufacturing and industrial Internet.

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