

Relying on “Next-Generation Information Technology” to Build the Core Competitiveness of Logistics Cost Control

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Abstract: This topic will take the special nature of the logistics industry into account, and make a qualitative and quantitative analysis of the impact of big data and cloud computing on the cost management of the logistics industry. This article analyzes from the perspective of logistics cost management, finds out the factors that affect the logistics cost of SF Express and its effects, and gives corresponding opinions on how to improve production efficiency, so that it can be used as a reference for other logistics companies' cost management. In the context of Next-Generation Information Technology, big data, intelligence, mobile Internet and cloud computing technologies have become the powerful technology engine rooms for logistics companies' transformation and upgrading, and they have become important guarantees for logistics companies to reduce costs and establish competitive advantages. In the era of "Next-Generation Information Technology", the construction of big data platforms can not only help them open up the market, but also reduce logistics costs and increase competitiveness. Therefore, seizing the opportunity of the times and integrating the technology of “Next-Generation Information Technology” into the business has become an inevitable choice for logistics companies.

1. Introduction

In 2017, Henan Province put forward *the Guiding Opinions on Accelerating the Development of “Next-Generation Information Technology”* in order to fully implement the *Outline of the National Information Development Strategy*, thoroughly implement the spirit of the Conference on Science and Technology Innovation, and promote the rapid development of the network information technology industry, which take the big data, intelligence, mobile Internet, and Cloud computing (hereinafter referred to as "Next-Generation Information Technology") as the core of bigger and stronger digital economy. It finally will comprehensively improve the level of information technology, and provide policy support. This also shows that the implementation of smart cloud technology is an important content and a key breakthrough for the development of logistics enterprises in China at this stage.

Nowadays, China's logistics industry is in a period of rapid growth. It not only facing industry opportunities with rapid growth in business volume, but also industry challenges with costs rising. Next-Generation Information Technology is consist of Big Data, Intelligent, Mobile Internet and Cloud Computing. Big data refers to the collection of data capture, storage, and processing. This information model has keen insight, efficient decision-making, and process optimization capabilities.

2. Literature Review

2.1 Research on Next-Generation Information Technology

The emergence of "Next-Generation Information Technology" has benefited from the integration of mobile Internet and cloud computing technologies and the penetration of big data and intelligence. As the application basis of "Next-Generation Information Technology", cloud

computing technology provides support for the mobile Internet, and also provides technical applications and economic feasibility for data storage and information processing [1]. Scholars believe that the potential for the integration of big data intelligent analysis with other industries is endless and can create huge economic growth points. The development of information technology and applications has entered the era of "Next-Generation Information Technology". Big data is a characteristic of this era [2], and the application of big data is triggering new industrial changes.

2.2 Research on Cost Management of Next-Generation Information Technology

Under the background of big data, the competitive environment of the manufacturing industry has undergone drastic changes. These new changes have put forward higher requirements for the standardization of manufacturing processes, the effectiveness of cost management models, and the process of enterprise information management in manufacturing companies. It is extremely important to effectively affect corporate costs under the background of automation and intelligence [3]. At the same time, some scholars have found through research that other enterprise groups can complete the construction of cost accounting centers through the Next-Generation Information Technology platform, and the advantages of cost accounting centers can help achieve sustainable and efficient development of enterprises [4]. The author believes that the innovative research of enterprise management accounting tools in the era of big data from the perspective of cost control, it lies in the face of new thinking, new technologies and methods brought about by big data. Enterprises need to change from time to time, adapt to changes in thinking models and data processing models, and actively build an information platform.

The research on cost management by foreign scholars has gone through a long history. The cost management theory has emerged as early as the middle of the 15th century, mainly to meet the needs of people to calculate sales profit and loss [5]. However, it only developed rapidly in the early 20th century, and gradually evolved from a single cost control to various forms of control methods to adapt to the characteristics of different enterprises. At the same time, it appeared a research method which combined cost control and ERP system management.

In addition, due to its high efficiency in cloud computing in the estimation of information technology and service quality parameters, Next-Generation Information Technology has become one of the most important issues in the computer world. Cloud services not only help companies expand their business, but also effectively control accounting costs.

2.3 Literature Research On Logistics Industry Information Platform

The logistics industry's research on corporate performance has very mature theoretical products. As an important branch of logistics industry. In recent years, the express delivery industry has gradually been valued by the academic community, with relatively few research results and relatively insufficient empirical research.

Western scholars have analyzed the problems and influencing factors in the development process of express delivery companies by studying some large express delivery companies abroad. Some of them analyzed the problems encountered by courier companies in the development process, and obtained information on major courier companies through a comparative study of several international large-scale courier companies such as Fedex, DHL, and UPS. The advantages of the platform construction and the areas are that other express delivery companies need to focus on in the operation process are proposed, which has an important reference role for the big data construction of express delivery companies [6]. Others have studied the success factors of the development of UPS in the United States, and they believe that UPS can develop into an international large-scale express company, it has important relations to the continuous enrichment of original data as the internal and external environment changes. Therefore, for the express delivery industry, continuously improving competitiveness and accelerating the establishment of an information platform are important guarantees for development.

3. The Status of SF Express “Next-Generation Information Technology” and Financial Performance Analysis

3.1 Big Data Platform Construction

In 2017, SF Investment Co., Ltd., a wholly-owned subsidiary of SF Holdings Co., Ltd. (hereinafter referred to as "SF Investment"), and eight other supply chain companies signed the Shareholders' Agreement on the Establishment of a Super Big Data Joint Venture Company and invested to establish Next-Generation Information Technology platform.

Table 1 Data from SF Q3 2017 to Q1 2018

Item	2018-03-31	2017-12-31	2017-09-30
Net profit (yuan)	987383100	1131495000	1759010700
Net profit growth rate	28.58%	27.09%	14.41%
Total operating income (yuan)	20592941018	21446693788	17665006971
Total operating income growth rate	32.96%	25.91%	23.00%
Accounts receivable turnover days (days)	24.52	26.24	
Gearing ratio	42.54%	79.18%	

The 2018 report shows that SF Express achieved revenue of 20.57 billion yuan in the first quarter, a significant increase of 32.96% year-on-year; net profit attributable to shareholders of listed companies was 995 million yuan, which shows an increase of 28.58% year-on-year; net profit after non-deduction Up 19.89%. The big data platform constructed by the joint venture will effectively help SF and other 9 shareholder companies to tap and maximize the value of data, improve logistics efficiency and reduce costs. At the same time, the intelligent upgrade of the supply chain will effectively enhance the industry competitiveness of the enterprise, form a virtuous circle of data to promote enterprise development, and corporate development to improve data reserves, further promote the company's development, and set industry benchmarks.

3.2 Cost Management Based on SAP System

Based on a long-term perspective, SF looks at the future trend of the mobile Internet, and is the first company in the industry to introduce SAP solutions and successfully build a unified application technology core platform with SAP ERP as its core. According to the data in Table 1, after the introduction of the SAP system, SF Express' accounts receivable turnover days and asset-liability ratios in the first quarter of 2018 decreased compared with the fourth quarter of 2017, indicating that both the receivables' turnover capacity and long-term solvency have improved.

The integrated application platform of the SAP system not only promotes the efficient collaboration and data integration and technology platform of SF's entire value chain; it also realizes the “three-in-one integration” of material flow, SF capital introduction flow, and information flow. It also overcome the obstacles that reduce cost allocation isn't precise, which leads to the improvement of industrial costs and promote industrial upgrading.

4. Insufficient and Suggestion of SF Express Next-Generation Information Technology

4.1 The Correctness of Basic Data Needs to Be Improved

The basic data is essential for the application of the SAP system. For example, in the financial management module, the accuracy and timeliness of the basic data is very important, because these basic data will affect the decision of the management staff. If the data is incorrect or the decision errors of management personnel are not timely enough, it will cause huge losses to the enterprise.

SF Express Group has a lot of data, so it should raise the requirements for basic data. Aiming at the accuracy of the data, the information management department should strengthen the maintenance of basic data, unify the coding rules of master data, and then send these master data to various systems after maintaining the data.

4.2 Low Professional Competence of Personnel

With the adoption of Next-Generation Information Technology, SF's online and offline personnel should have the ability to check, review and analyze corporate data. This has higher requirements on the professional competence of personnel. However, SF's logistics personnel are highly mobile, their professional competence is low and the system is not sufficiently understood, and there may be situations in which they cannot detect the data problems of the enterprise and expose the enterprise to data risks.

Because SAP and big data systems are more complicated to operate, they have higher professional competence for financial staff and operators. Enterprises should mainly train SAP staff on the operating skills of the SAP system. The form of training can be lectures, tests, etc., so that relevant personnel can become familiar with SAP and big data systems as soon as possible and adapt to new work models.

5. Conclusion

Now is the era of Next-Generation Information Technology. With the gradual advancement of industry and manufacturing in China, manufacturing and computer information technology has entered an accelerated period of integration. During the "China's 13th Five Year Plan" period, information technology will continue to maintain rapid development and gradually be widely used in daily life. The rise of technologies such as big data, artificial intelligence, mobile internet, and cloud computing will cause major changes in the industrial landscape. Therefore, the logistics industry needs to keep pace with the times, and actively embrace the imminent change brought about by the "Next-Generation Information Technology", together with an open mind, a mode of continuous innovation, and a continuous learning attitude.

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