

# Corporate Governance under the Influence of Big Data

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**Abstract:** *With the further development of the internet and the advent of the information age, more and more information appears in the network. this is both an opportunity and a challenge for enterprises. if they can seize the opportunity to transform and upgrade the industry, further simplify management and supervision, and establish a consumer-led production process, they will have the opportunity to overtake on curves. if companies fail to keep pace with the big data era, they are at risk of becoming obsolete. this paper starts with the analysis of the impact of the era of big data on enterprises, discusses the role of big data in enterprise management, and puts forward some suggestions and suggestions for reference.*

**Keywords:** *Big Data, Corporate Governance, Science and Technology Progress*

## 1. Introduction

### 1.1 Research Background

With the further development of the Internet, the era of big data is coming, and the traditional decision-making methods and marketing methods are increasingly unable to adapt to the development of The Times. In this era of information explosion, the ability to analyze information is becoming more and more important [1].

### 1.2 Research Content

This paper mainly studies the defects of existing corporate governance and how to make use of big data to make up for the defects and realize the transformation and upgrading of enterprises in the coming era of big data.

### 1.3 Research Significance

The era of big data is a turning point for all companies. If big data is successfully used to transform and upgrade the company, it can realize overtaking on corners and achieve a big breakthrough. Therefore, it has become an irresistible trend to use big data to conduct corporate governance, analyze consumer preferences and predict future market trends.

## 2. Definition, Generation Process and Existence Significance of Big Data

### 2.1 What is Big Data

So far, there is no accurate definition of big data. Generally speaking, big data refers to the general term of all valuable information assets that people face in the Internet era. Big data is a huge collection of data that cannot be stored and analyzed by conventional software. New models and new tools are needed to classify, quantify and turn it into valuable information for people to use. McKinsey & Company defines it as the data with low value density, large total value and huge data scale that cannot be stored, managed and analyzed by conventional data software.

Generally speaking, big data analysis is to systematize, classify and refine the complicated, complex, massive and disordered information, and make it into information that can be used by oneself.

## **2.2 Background of Big Data Generation**

The 21st century is the age of information. The third industrial revolution has promoted the development of the field of electronic computers. Computers have entered thousands of homes and thousands of lines and industries. As computers continue to evolve, companies are increasingly looking to computers to process data to better understand consumer needs and trends. As the number of people using smart computers or mobile phones rises, information is also exposed in the process of constantly surfing the Internet.

There have been major changes and innovations in the way of information collection. Foreign Facebook, Amazon and Instagram, domestic Weibo, Tmall and wechat have directly generated a large amount of data, including location, chat information, consumption record, evaluation, reading, entertainment and so on. It can be said that Internet companies have their own data collection function.

The explosion of data has led to the advent of the era of big data.

## **2.3 Presentation of Big Data**

The term "big data" has been frequently mentioned in the media recently, and all walks of life are proposing to upgrade themselves through big data. But as early as 1980, the word "big data" had been produced. In his book the Third Wave, the famous scholar Toffler compared "big data" as the most dazzling movement in the third wave of scientific and technological progress. After that, the term was slowly forgotten until September 2008, when The journal Nature published a column called "Big Data". Since then, big data has officially become familiar to people and begun to play its huge power.

McKinsey, a well-known investment consulting company in the United States, first pointed out in its research report that the era of big data is coming. With the further development of data storage capacity, more and more unquantifiable data will appear in the network, and the progressive improvement of data processing and analysis capability will make these seemingly numerous and disorderly information show its real value, and a new round of economic growth will be launched under the guidance of big data.

## **2.4 Significance of Big Data**

Big data can help us to conduct analysis and simulation based on historical information, summarize and infer the law of development of things, and help manufacturers to better understand customer needs, so that they can provide corresponding services. Help enterprises predict the future development trend of the industry, so as to grasp the opportunity of reform, so as to achieve curve overtaking.

# **3. The Current Situation of Corporate Governance in China**

## **3.1 Basic status of Enterprise Governance**

With the step by step development of China's economy, The governance of Chinese enterprises is also generally modernized, and the management of corporate enterprises is further improved. The company legal person property right system is the core of modern enterprise system. All major matters of the company are decided by the shareholders' meeting. The board of directors is the management body of the company, and the supervisory board supervises the board of directors, so as to realize the separation of the three powers of choice, execution and supervision. The middle and senior decision makers of enterprises are no longer held by the capital owners, the ownership of capital and the right of operation and management of enterprises are gradually separated, and the specific management of enterprises is taken charge of by professional managers. Modern enterprises from the human resources management, enterprise organization management, enterprise financial management, enterprise strategic management, enterprise information management, enterprise culture management and other aspects gradually established a scientific and standardized management system.

## **3.2 Limitations of Current Enterprise Governance**

After thirty years of reform and opening up, China's enterprise management has made great progress, gradually approaching the advanced enterprises in developed countries, but there are still some shortcomings that cannot be ignored.

1) Lack of effective incentive mechanism. Human resource is the first resource, in the 21st century, talent is the core of the company's competitiveness, without talent, the enterprise will be unable to do anything. In his research on the phenomenon related to employee promotion, Laurence Peter pointed out that no matter what kind of company a person is in, he will always move forward to a higher position, even if that position is beyond his ability. The establishment of appropriate incentive mechanism can stimulate the motivation of employees and urge them to work hard. How to establish a proper employee performance evaluation system is indeed a very difficult problem. The evaluation criteria should not only reasonably and comprehensively reflect the contributions made by employees to the company, but also should not induce employees to only meet the evaluation criteria and do unquantifiable and damaging behaviors to the company. The current incentive system of enterprises is more or less one-sidedness, loopholes and other problems, reduce the efficiency of the enterprise.

2) Weak supervision and restraint mechanism. The construction of supervision and restraint system is a measure to track and supervise the inspection items, clarify the work responsibilities of each department and enhance the enthusiasm of all employees. As the company grew, a strong supervisory body became necessary. However, in the face of a complex corporate management structure and a large number of employees, the traditional supervision mechanism is a little weak. One of the key reasons is that you can't monitor employees' efforts in real time during work hours, and sometimes it's difficult to identify violations. The cost constraints for monitoring organizations can't always grow. The above two points have caused the weakness of the management constraint mechanism.

3) The selection of senior managers is difficult. With the development of the company, the ownership and management rights of the enterprise were gradually separated, and the professional broker market appeared. The development of the company is inseparable from a qualified professional management team. However, some interests are inconsistent between the management and the owners, which may lead to the occurrence of some managers damaging the interests of the company in pursuit of their own interests. In the principal-agent problem, there exists information asymmetry, namely, adverse selection and moral hazard. It is difficult for the board of directors to make a reasonable evaluation of the manager before the employment relationship is signed. After the employment relationship is established, the board does not have full control over the manager's actions.

#### **4. Current Situation of Enterprise Using Big Data**

In the current situation, the connection between the Internet and all walks of life is more and more close, "Internet +" enterprises are springing up like bamboo shoots after a spring rain, "Internet +" is also based on the analysis and processing of big data. Industries such as finance, banking, manufacturing and logistics are leading the way in big data application. Big data has been fully integrated into these industries. According to the authoritative IDC, the big data market increased from \$2 billion in 2010 to \$16.9 billion in 2015.

In the past two years, well-known enterprises at home and abroad (such as ebay, Amazon, Taobao, Tencent and Telecom, etc.) have successively used big data to transform and upgrade, implement precise positioning for customers, produce products in line with their preferences and carry out various in-depth business analysis and application. For example; Assist sales volume to determine customer preference by comparing the length of time customers focus on each item; Through the analysis of customers' overall shopping situation, we can determine customers' favorite colors, materials and so on, and target advertising to reduce costs, etc.

In contrast to the rapid use of big data by the above-mentioned large companies to transform and upgrade themselves, many domestic enterprises are still in the initial stage of big data application, or have not started yet. The future era is the era of big data, if they do not seize the opportunity to act as soon as possible, waiting for them will be more brutal reality.

#### **5. The role of Big Data Analysis on Enterprise Management**

##### ***5.1 Determine the Future Direction of the Company***

In the context of big data, the production and value of products are increasingly becoming public. Each consumer can have a direct impact on it, and the enterprise can also intuitively see the changing trend of each consumer's choice. The relationship between enterprises and consumers gradually tends to equality, interaction and mutual influence. The production management mode of "making cars

behind closed doors" used by enterprises in the past is gradually going down the stage of history.

Enterprises directly interact with consumer groups through the network, and actively guide them to participate in the design, production, safety assurance, marketing, customer management and other issues of enterprise products, so as to truly realize consumer-led product production. This way can also intuitively feel the changing trend of consumer preferences, so as to realize the transformation and upgrading of the company faster and determine the future development direction of the company.

### ***5.2 Facilitate Enterprise Management and Quantify Employee Workload***

Analyze the work of each employee through big data, so as to motivate and supervise correctly. Informatization management of enterprises through big data. Make big data analysis and processing of employees' on-duty and off-duty time, each office software application time, rest interval and their behavior, and quantify the workload and intensity of each employee, so as to make rewards and punishments for employees more fairly and improve their work efficiency.

Through big data management, enterprises can simplify their management structure, thus simplifying management and regulatory agencies, reducing enterprise costs and improving enterprise efficiency. Big data analytics can replace some of the work of management and regulators, reducing human error and reducing the likelihood that companies will suffer from collusion. It can enable the company's senior management and actual holders to truly understand the real situation of the company, reduce the degree of information asymmetry, and solve the moral hazard problem to a certain extent.

Enterprises can also use big data to analyze the selection of managers, analyze the loyalty, ability, cost performance and other aspects of each candidate, so as to select truly suitable managers for the company and get rid of the dilemma of adverse selection.

### ***5.3 Analyze Market and Customer Preferences***

The need for market understanding and insight is increasingly toward truth and precision. The large amount of data collected by the Internet not only makes it difficult for enterprises to capture effective information, but also brings them great opportunities. In the computer age, enterprises can collect various information of each individual through the Internet, including consumer preference, watched advertisements, shopping frequency, sensitivity to price reduction and other key information, so as to design a marketing plan for each individual customer. So that the target of the product is directly accurate to the individual, rather than the group. Marketing plans also become more efficient due to greater pertinency. Enterprises can target the people who are interested in the product, and eliminate the customers who are not interested in the product, so as to reduce costs. Customers will often visit the company due to the habit effect, and the company will constantly revise its own data, enrich its own database, and better serve customers and improve corporate benefits.

Take Wal-mart as an example. As a pioneer in the era of big data, Wal-Mart has established a big data analysis center that incorporates global data. Reasonable analysis of big data can clarify customers' requirements for specific links such as products, prices and logistics, so as to better think for consumers and find out the consumer psychology of each shopper. Maximize the appeal of Wal-Mart to customers, so as to increase the number of customers and consumption, and cleverly increase corporate benefits. It can be seen that wal-mart, as a global enterprise, depends on its continuous attention and utilization of new technologies.

### ***5.4 Analyze the State of Cooperative Enterprises and Competitive Enterprises***

The operation of enterprises is increasingly moving to the network, the enterprise financial statements, procurement information, sales information and so on are reflected in the situation of data on the network. Enterprises can make accurate evaluation of upstream and downstream cooperative enterprises and competitors by analyzing these data, so as to better choose partners, choose cooperation areas, and reasonably distribute benefits; Analyze the strengths and weaknesses of competitors, learn from their strengths and avoid their weaknesses. On the basis of negotiation and consultation, the competition mode can be changed to see if they can cooperate with each other and form a form similar to a "cartel" agreement to achieve win-win results.

## 6. Limitations and Risks of Big Data

The construction of big data cannot be separated from the support of the network. Although the development of network technology to our life and enterprise management has brought great convenience, but in the virtual network operation environment there are still a lot of network security hidden dangers and technical loopholes, vulnerable to hackers or virus invasion, making enterprise information in a very dangerous environment [2].

Big data enterprise means that all the information of the enterprise is digitalized, and the business secrets and intellectual property rights of the enterprise are also included in it. Once the information is tampered with or stolen, there will be very serious consequences.

And the corresponding laws and regulations and other regulatory system is not very perfect. There are some loopholes, easy to be illegal elements through the gap, further increase the security risks of enterprise information.

In the era of big data, the information will be more huge and open, which will lead to more fierce competition among enterprises. As other enterprises have a deeper understanding of themselves, they will also use data to analyze us, so as to find out our shortcomings and deficiencies, and take corresponding strategies. Therefore, big data enterprises are also a challenge to their own strength and adjustment ability. [3]

## 7. Summary

With the emergence of new technologies and application patterns, global data has shown unprecedented explosive growth, and the era of big data is coming. This is both an opportunity and a challenge for corporate governance. In the era of big data, an enterprise's ability to collect and process data is more tested. If big data can be better used, it can accelerate the transformation and upgrading of enterprises, so that enterprises can more accurately understand the market and the internal environment of the company, so as to make accurate choices and improve the working efficiency of the company. If an enterprise fails to overcome the problems encountered in big data analysis, it will face the risk of being far outperformed by other enterprises. [4]

Generally speaking, the era of big data requires enterprises to establish new business models. Product oriented, market-oriented transformation, and other enterprises to establish enterprise network ecosystem and its synergistic symbiosis mechanism. Data all behaviors, so as to accurately evaluate the management team, employees, consumers.[5]

Of course, it is a very difficult process to complete the data of enterprises, which requires continuous efforts of enterprises. Look forward to one day the enterprise can truly complete, realize their own leap.

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