# Statistical Management and Analysis of Its Causes of Errors in Enterprise

#### Yutong Li

Beijing Normal University - Hong Kong Baptist University United International College

Abstract. With the continuous development of China's economy in recent years, economic life has become the main activity of people's participation, and statistical management in enterprise management has occupied an important position in the development of enterprises. Whether it is the government or all walks of life, the demand for statistical data is constantly increasing. Strengthening the statistical management of enterprises is both a requirement of the government and a demand of society. The company has a good statistical management work, which will enable the company to grasp the progress of relevant data generated by the business in real time during the operation process, and based on this, develop a scientific and reasonable investment plan. However, in reality, the statistical management of enterprises is the most easily overlooked, because the development goals of the company's management are focused on how companies can gain a foothold and gain benefits in the competition. This paper mainly analyzes enterprise statistical management, and proposes improvement strategies for statistical management work and its error causes in enterprise management, hoping to improve the quality and efficiency of enterprise statistical management.

Keywords: enterprise management; statistical management; error cause; analysis

#### 1. Introduction

The management of an enterprise involves many aspects, such as financial management, statistical management, and human resource management, while statistical management is an extremely important component of enterprise management. The statistical management work in enterprises is not only the process

of collecting and summarizing the generated data, but also the process of improving the quality of statistical management. At the same time, it is also the process of using statistical data to present statistical analysis of human and financial resources and physical flows and forecasting trends in the operation of corporate economic activities. In order to meet the requirements of statistical management of system science, enterprises can ensure that information and materials can be timely and accurate. The statistical management work in enterprises is an extremely important component in the development of enterprises. Therefore, it is necessary to strengthen the statistical management of enterprises. In order to achieve effectiveness, statistical management in enterprises requires the authenticity and accuracy of statistical data as a guarantee, which has an important impact on the development of enterprises. However, in the current statistical management of enterprises, management usually pays more attention to the operating system of enterprises. Therefore, one of the important sources of enterprise management is the data of enterprise statistics, and the development of enterprises also needs the support of relevant state departments. The basis for the policies formulated by the government is also derived from the statistics of enterprises.

# 2. The work content and application characteristics of enterprise statistical management

(1) The content of the statistical management work within the enterprise usually includes collecting data, summarizing and counting the data, etc., and the final statistical information needs to be presented, which is used to reflect the current situation of the enterprise. Collecting data is only a relatively simple method. In the current information age, more advanced technical means are needed to carry out statistical data, so that the work of statistical management can be simpler and faster, which is also the main purpose of the company to carry out statistical management work. However, for enterprises, the statistical management work in enterprise management needs to be investigated and managed, supervised, etc., and the results of the analysis will be expressed in various forms, it provides enterprises with more effective solutions and provides support for the future development of the enterprises [1].

(2) Application characteristics of enterprise statistical management work. In the statistical management of enterprises, the processing of statistical information is extremely important work, and the characteristics of statistical information is quantitative and comprehensive. Among them, quantity is the quantity characteristic that is expressed after analyzing things at a specific time and in a specific aspect, thus helping the staff to correctly understand and analyze things and to quantify and characterize them, and help staff make the right decisions. It is precisely because of this that the statistical management work in the enterprise involves more and more problems, and statistical information is gradually being integrated with other information. If the object of qualitative analysis can further derive quantitative characteristics, then the degree of availability of statistical figures will inevitably increase. In the statistical management work, in addition to the quantitative characteristics, it also has comprehensive characteristics. Various information generated by enterprises in the course of business operations need to be counted, and various links are involved in the statistics [2]. The statistical work and management work in management can not only summarize the past development of the enterprise, but also predict the future development direction of the enterprise. The nature of statistical management in enterprise management is also closely related to the characteristics of the enterprise. If the enterprise can establish a complete statistical management system, it will form a comprehensive and effective statistical management model. It will fully display the work functions of statistical management work, thus providing better help for enterprise management [3].

#### 3. Problems in enterprise statistics management

At present, these problems exist in most of enterprise statistics management in China.

#### (1) Lack of sufficient statistical management awareness

Most of China's enterprises have been limited by traditional statistical management models in their statistical management work. They have always been in a passive management situation, and management lacks attention. Part of the management team did not expect the impact of statistical management work when the company experienced economic decline or decision-making mistakes, which caused the statistical management work cannot be fully and effectively exerted in

the development and operation of enterprises [4].

#### (2) The statistical management method is more traditional

The backwardness of the statistical management methods of enterprises is mainly reflected in several aspects. For example, the enterprise's statistical management concept is traditional. Therefore, it is necessary to raise the awareness of the staff, and then they will have higher work ability and ideology in the work, so that the overall management level of the enterprise will rise <sup>151</sup>. The statistical management methods of enterprises should be more scientific and reasonable. The statistical management methods of enterprises should be more scientific and reasonable. With the rapid development of China's economy, the statistical management of enterprises has an urgent need for high-quality management. Therefore, enterprises must formulate scientific and reasonable statistical management methods as support. However, as the statistical management system in the enterprise is constantly reforming, the working methods of statistical management are also changing. As a result, there will be limitations in the statistical management of enterprises, which requires a scientific rationalization method or system for management concepts and methods.

#### (3) Lack of sound statistical management system

In some current enterprises, there is no special staff and specialized work departments for statistical management, especially in some small and medium-sized enterprises. There are also some enterprises that set up simple statistical groups in the corresponding departments, and the tasks in the group are also very simple, which leads to the lack of professional statistical management staff in many aspects, resulting in the statistical management work level of enterprise management is not efficient [6]

#### (4) The business level of statistical management staff is uneven

According to relevant data, the statistical management staff in most enterprises are generally only amateur or part-time. Few enterprises have professional statistical management personnel, while part-time staff members regard the statistical management work as auxiliary work. Due to the technological development of information in China, most of the business and work of enterprises need to be completed on the computer. Skilled computer knowledge has higher requirements for statistical management<sup>[7]</sup>. Moreover, the reporting system, format and content are

constantly being adjusted and changed, and higher requirements are also placed on the business level of statistical managers. Therefore, compared with professional statistical management personnel in the enterprise, part-time statistical management personnel lack focus and initiative in their work <sup>181</sup>.

#### (5) Lack of effective systems and policies

At present, in most enterprises, due to the lack of attention to statistical management work, the implementation of the statistical management system in the enterprise is also ineffective. Although some enterprises have formulated corresponding statistical management systems, they lack the system implementation policies that match the system. As a result, the statistical management work system in enterprises has not been put in place in the enterprise, and a series of problems have appeared in the statistical work. For example, statistical incompleteness and fraudulent phenomena often occur, which has an impact on the effectiveness of statistical management work <sup>191</sup>.

#### 4. The requirements of enterprise management for statistical management work

#### (1) The importance of statistical management to business management

The current economic system in the market has developed more perfect. Statistical management plays a very important role in the current business management process. Statistical information is also an extremely important resource in the current management process of enterprises. It has become one of the foundations and necessary conditions for current economic development. It is also a hard and powerful cornerstone for companies to make decisions. Whether enterprises can obtain comprehensive and effective statistical information management has become an important criterion for measuring the statistical management level of enterprises [10]. Statistical management plays an important role in the management of enterprises, mainly in several aspects. a. Statistical management can reflect the development status of the company in a certain period of time. Statistical management can also be very clearly reflected in the company's liabilities and personnel. In addition, it can respond to the company's production, sales, and quality of products, and can predict the future development trend of the company. b. It can reflect the organization and scale of the company. The statistical information in the statistical management work reflects the production, personnel

and assets of the enterprise. The structural reflection of the company is mainly reflected in the technology, personnel structure and product quality. In addition, the benefits to the company can also be reflected. Regardless of the enterprise, the statistical management work is reflected in the company's profit and loss, economic benefits, and input of human energy and material resources. c. Reflect the number of companies and the characteristics of quality. Statistical management in management involves a very large amount of data collection and statistical analysis. Therefore, the quantitative aspect of the enterprise's reflection is mainly reflected in the fact that the input-output ratio of the enterprise can be quantified [111].

#### (2) Specific requirements for enterprise management for statistical management

- a. Ensure accuracy. Statistical management work is inseparable from the support of a large amount of data. Therefore, in order to reduce losses to enterprises, it is necessary to improve the accuracy of statistical management. In the traditional statistical management work, the accuracy of statistical work is also a part that needs to be considered. There must be a certain error between the calculated value and the actual value. If the statistically obtained error value is lower, the accuracy is higher.
- b. Ensure timeliness. Since statistical data needs to be time-sensitive, it is necessary to provide statistical data to management before management makes a decision, otherwise it will affect management's decision-making. Therefore, it is necessary to pay great attention to the timeliness of statistical management. However, in the actual statistical management work, because the statistical data itself has a large change, it has very high requirements for the timeliness of the data. The enterprise management statistics department is required to publish the dates on which the various statistical indicators are publicized, and then carry out related work according to the selected date.
- c. Grasp the equilibrium point and equilibrium relationship. Statistical management contains data that is diverse, so different statistics cannot be generalized. For example, if a company wants to make an annual report, then the time required will be longer. Because the data and the data involved in the report are very complicated, for example, financial data, industry data, and basic data are required, and the collection process is laborious and difficult. Moreover, in the process of producing annual reports, the direction of the overall development trend table should be consistent and cannot be described in a fixed direction. In order to

ensure the time and correctness of the audit inquiry, it is necessary to provide data under the premise of ensuring that the data is not missed and the data is not lost [12].

#### 5. Analysis of the causes of errors in enterprise statistical management

#### (1) Classification of errors in statistical management work.

The first is to classify according to the work link. According to the different work links in statistical management, the error can be divided into initial, medium and late stages. The initial stage refers to an error caused by the negligence of the work of the reporting staff. The medium-term error refers to the error in the process of statistical data and reporting of data [13]. The tail error refers to the difference between the standard statistical data and the final actual data according to the normative method. This method of dividing the error types is relatively correct. Second, classify by nature. a. Method error. When carrying out statistical management work, due to the use of inappropriate methods in the process of development, the error is generated [141]. In addition, due to the limited staff and materials in the statistical management department, the statistical management work is not in place, or the error is caused by the non-standard estimation method used. b. Time error, which means that the error is caused by the inaccuracy of the defined time or period. For example, within the period of the enterprise's accounting work, the specific requirements put forward by the statistical management department cannot be satisfied, resulting in errors, in other words, it is because of the time misalignment that causes the error to occur. c. Human error. In the statistical management work, due to the staff's own problems, errors occurred in the investigation and consolidation of the whole work process. The error is also the most common type of statistical management work in enterprise management, and can generally be divided into several error types. For example, the formation of type errors of attitude and knowledge, interference metric. The phenomenon that fabricating statistical data is driven by the interest is called the interference error; Because the statistical management staff does not work hard, lacks the responsibility of work, and fills in the statistical data at random, resulting in the error is called attitude-type error; The measurement error is the error that occurs in the process of data conversion; because the statistical management staff's work level is insufficient and the ability is not enough, the understanding of the meaning of statistical management is not clear enough to cause errors. This is called knowledge error [15].

#### (2) Causes of errors in statistical management work

- a. Lack of normativeness in statistics. Most companies do not have a very reasonable working system when conducting statistical data, and they are not subdivided according to the company's own situation. Even drawing on the experience of some large companies, they have not changed and improved their work systems according to their own characteristics. This leads to the company's statistical management work system can't meet the needs of the enterprise itself, thus bringing certain impact to the statistical management work.
- b. The statistical indicator system lacks scientific rationality. The design problem of statistical indicators of enterprises is mainly reflected in the fact that the economic benefits and the state of economic development of the enterprises are not taken into consideration and the scope of consideration is too narrow and single. There are some problems in the concept and relationship of the indicator system. One of them is that the indicator system is relatively lack of timeliness. As the current social development speed is rapid, the statistical indicator system within the enterprise should also be improved so that the status of the enterprise can be stabilized in the market competition. If the statistical indicators of the enterprise do not change, the statistical data cannot meet the needs of the enterprise in the new era.
- c. Problem of statistical management staff business level. The main performance is that 1) statistical management staff lacks work experience and focus. 2) Statistical management staff lacks serious work attitudes. 3Statistical management staff lacks professionalism and cannot solve problems quickly and effectively when problems arise [16].

#### 6. Measures to reduce statistical management errors in enterprises

#### (1) Data should be standardized management

In view of the current lack of standardization in data management, enterprises need to manage data standards firstly. a. Organize and summarize according to the actual demand data of the enterprise, including the manpower, production, equipment and finance. b. Secondly, according to these catalogues, a deeper division is mainly divided into production efficiency and production quality. c. When subdividing the data again, the specific content of the indicators at the time of secondary classification can be subdivided in more detail. The statistical data will

involve every staff member within the company. Therefore, the statistical management work will also involve the management of all the staff in the enterprise. Therefore, it is necessary to make a system for statistical management. And it plays a role in constraining the statistical management work, so as to achieve the purpose of improving management quality. The future development trend of enterprises will probably be the mode of information management. Therefore, in the process of moving closer to informationization, enterprises will inevitably generate a large amount of data information. However, if the data information is different due to factors such as human factors and calculations, it will have a serious impact on the quality of statistical work. Therefore, it is extremely necessary to make the indicators of statistical data more scientific and reasonable in the enterprise [1171].

#### (2) Setting up a more complete and reasonable indicator system

If you want to improve the development of statistical management work, it is inseparable from the statistical indicator system. Therefore, it is very necessary to improve the statistical indicator system. The data and information obtained in the statistical process can provide some help for the development of the enterprise. In the process of constructing and perfecting the indicator system, several principles should be considered: a. Normative. The indicator system needs to be implemented from the process of collecting data to statistical data to achieve standardization; b. Objectivity. It is necessary to objectively reflect the economic benefits, major businesses, and current competitiveness of the market, etc.; c. Comprehensiveness. Since the statistical indicators involve all the business contents of the entire enterprise, the indicators should be refined as far as possible according to the standards specified in the market; d. Timeliness. The current competition in the market is extremely fierce. Therefore, when companies continuously introduce new business content and ensure that the company's indicator system is adjusted in time, it can enhance its competitiveness in the market <sup>1181</sup>.

#### (3) Give full play to people's subjective initiative.

If there is an error in statistical management, the most influential factor in the cause of the error is the human factor. Therefore, in order to reduce the error in statistical management, we must first fully consider the human influence factors. 1. Strengthen the training of statistical management personnel, and formulate reasonable training measures, so that the statistical management staff can improve their professional work level and business ability, and also change their working

attitude at work, thus enhancing responsibility of work. At the same time, the statistical management concept of modern enterprises should be confirmed. Enable staff to improve their judgment and analysis skills. 2. The statistical management staff in the enterprise should improve their statistical information processing capabilities and computer operation capabilities in various ways. 3. Improve the service awareness of statistical management staff, improve the management level of staff and broaden the scope of statistical management work, so as to achieve the goal of improving the level of statistical management services [19].

# 7. Effective countermeasures for the improvement of enterprise statistical management work

In view of the problems existing in the current statistical management of enterprises, enterprises can use improvement measures in several aspects to improve the work level and work efficiency of statistical management work.

(1) Strengthening the awareness of statistical management and establishing a correct concept of statistical management

The management within the enterprise should take the lead, lead the staff to establish the correct statistical management work awareness and concepts, have an understanding of the importance of statistical work in the enterprise, and actively learn the relevant content of statistical management. The management of the enterprise should pay more attention to statistical management and increase the energy input to the statistical work, so as to establish the important position of statistical management work in the enterprise.

#### (2) Improve the scientification of statistical management methods

The enterprise statistical management data system can provide more detailed information for statistical data analysis. Statistical analysis software can improve the accuracy of statistical management work statistics, and play a decisive role in improving the efficiency and quality of statistical work. It can be seen that the enterprise's application of information technology in the management process, the informationization of enterprise statistical management provides a more accurate and quick management method for statistical management. At present, both China and the world are actively moving into a new era of informationization, and realizing the informationization of enterprises' statistical management work is an

inevitable condition for the development of the current era. With the requirements of the current era, the information management of statistical management equipment has been rapidly developed in China's enterprises, which has laid a solid foundation for the management of enterprises to achieve informationization<sup>[20]</sup>. Enterprises need to have a strong database system to support the statistical management of the enterprise's work equipment, improve the efficiency of the use of the database, but confidential work is also essential, which is an essential part of the statistical management work information. The use of information technology to change the statistical management methods of enterprises, the flexible use of statistical management. The role of the statistical management informationization of the enterprise is fully developed, which has a good effect on the development of the enterprise.

#### (3) Making changes to the statistical management model

With the rapid development of current network technologies and computer equipment, information technology has been widely used in various fields, becoming an indispensable important office equipment in various industries, bringing great convenience to the development of enterprises. Therefore, the statistical management of enterprises is no exception. We should actively improve the informationization level of enterprises, combine statistical management work with information technology, and make full use of the advantages of computers to build a sound information network system. In the statistical management work, data collection and collation and other aspects to achieve informational workflow, in order to improve the quality of work and efficiency of enterprise statistical management, and improve the effectiveness and correctness of data calculation in statistical management work.

#### (4)Improve the work level and business ability of statistical management staff

With the increasingly fierce competition in the market for modern enterprises, the continuous improvement of information technology and scientific level has made enterprises put forward higher requirements for the business level of statistical management staff. Because this work is very practical, the staff who manage the conditions also require practical ability. Only in this way can we provide effective advice and opinions in the development of the enterprise. With the development of information technology, there are also new requirements for statistical management personnel. Only when staff actively improve their own business level and work

ability can they complete the statistical management work. Only with a solid knowledge of statistical management can we achieve the classification of the statistical management of enterprises, the complete indicator system and the standardization of statistical management basic work.

#### (5)Increase the importance of statistical management work

The management of the company should take the lead in guiding employees to establish correct statistical management work awareness and ideas, and actively learn and understand statistical management work, and know that statistical management plays an important role in enterprise development. The management also needs to give certain attention to statistical management, and increase investment in statistical management work, so as to continuously improve the level of statistical management work and establish an important position in statistical management work in enterprises. It can be implemented in several aspects. 1. The management of the company should include it in the daily work summary or assessment, and make corresponding performance mechanisms for the management staff. 2. Strengthen training on statistical management. Regularly carry out relevant training activities to improve the staff's business level and work ability to meet the needs of enterprises. 3. Through the form of recruitment, hiring excellent statistical management talents in the market, and timely updating the statistical management work equipment in the enterprise, this is an important step to ensure information management. At the same time, it is necessary to recruit professional statistical management technical talents, and send staff to study in a suitable period, so that they can find their own shortcomings in a timely manner and take timely measures. Only in this way can we build an excellent team of statistical management professionals [21].

#### (6) Establishing a sound statistical management system

Enterprises should establish a system related to statistical management that can adapt to the development of the enterprise according to their own development conditions and the relevant rules and regulations and legal provisions promulgated by the government, and focus on perfecting and reforming some of the details to ensure that the statistical management work is based on the system. At the same time, it is necessary to build a more complete and comprehensive statistical organization, to clearly divide the internal work positions in the department, clearly assign the duties and tasks of the staff and work objectives, and ensure that the statistical

#### 1 10000 to William of Business of Training of the

management work is carried out more smoothly and implemented more in place.

#### 8. Summary

In summary, if enterprises want to do a good job in statistical management, they must establish correct statistical management awareness and ideas. In the context of current social conditions, if enterprises want to do a good job in statistical management, they must establish correct statistical management concepts and awareness. The management must also pay more attention to statistical management and strengthen and improve the informationization level of statistical management work. For the problems of statistical management in most enterprises in China, for example, low level of understanding, low ability to work and lack of scientific management methods. Therefore, a series of solutions have been proposed, such as raising the emphasis on statistical management, improving the work and business capabilities of statistical management staff, and strengthening statistical management awareness, and establishing correct statistical management work concepts. In this way, it can ensure that the statistical management work in the enterprise plays its own role in the development of the enterprise, and better improve the quality and work efficiency of the statistical management work of the enterprise, thereby promoting the sustainable development of the enterprise.

#### References

- [1] Yanfeng Zhao. Accounts Receivable Management of Daily Operations of Enterprises [J]. China Optical Technology Journal, 2019, (1): 38-41.
- [2] Jianhong Gao. On the effective development of enterprise statistical management. Modern economic information, 2 010, (2 3): 1 3 2 a 133.
- [3] Yuanyuan Wang. Analysis of Intelligent Protection and Management of Modern Enterprise Management Information System. Computer CD Software and Application, 20 10, (12): 13-14.
- [4] Chao Yang. Analysis of Statistical Survey and Statistical Survey Errors in Enterprise Management [J]. Modern Business, 2014, (33): 94-95.
- [5] Xiangbin Sun.The Status Quo Research and Prospects of China's Enterprise Statistical Theory [J]. China Statistics, 2016,(07):68-70.
- [6] Xiaomei Feng. The Importance of Enterprise Statistics in Enterprise Management [J]. Manager, 2017, (22): 114.
- [7] Huagui Deng, Hui Xiong. Application of Enterprise Statistics Management and Analysis of Error Causes [J]. China Statistics, 2018, (1):42-44.

- [8] Xin Li. Preliminary Thoughts on How to Serve Enterprises [J]. China Statistics, 2016, (01): 52-54.
- [9]Jie Li.Discussion on Statistical Investigation and Errors in Enterprise Management [J].Contemporary View of Continental Bridge,2014,(12):71-71,73.
- [10] Feng Li, Xianfeng Li, Problems in Enterprise Statistics and Strengthening Methods "Small and Medium Enterprises Management and Technology, 2010 (5).
- [11] Qiong Peng. Analysis of the Causes of Statistical Errors and Countermeasures [J]. Modern Economic Information, 2014, (6):257.
- [12] Jiazhu Yan. Reflections on the Significance and Function of Statistical Management in Enterprise Management in the New Economic Environment [J]. Manager, 2015, (19): 50-51.
- [13] Yiyong Chen. Application of Statistical Data Analysis in SME Management [J]. Shopping Modernization, 2018, (19):98-99.
- [14] Jianhong Gao. On the effective development of enterprise statistical management. Modern economic information, 2 0 1 0, (23): 131-132.
- [15] Yan Liang. Strengthening the statistical work of enterprise groups to play the role of statistical work function [J] Hebei Enterprise, 2013 (6).
- [16] Jingfang Yao. Doing a good job in statistical management to promote the healthy development of the Group [J]. Business Manager, 2009 (15).
- [17] Baizhou Tian. Thoughts on Constructing a New System of Modern Enterprise Statistics [J].New West; theoretical edition, 2010(5).
- [18] Limei Guo. Zina talks about how to improve the statistical management level of enterprises [J]. Science and Technology Information Development and Economy. 2008 (28).
- [19] Cong Fan. Application of Statistical Analysis in Human Resource Management of Modern Enterprises [J]. China Science and Technology Investment, 2019, (5): 172.
- [20] Lin Fu. Problems and Improvement Countermeasures of Enterprise Statistics Management [J]. Intelligence, 2018,(36):214.
- [21] Lei Chang. Analysis on the Improvement of Enterprise Statistics Management Work Level [J].Silk Field of Vision,2018,(32):5.