Journal of Computational Science & Engineering
Available at http://www.asocse.org ISSN 1710-4068 57(2022)41-44

The value and research of applying statistics in economic management under e-commerce environment

Qian Li[1], Na Lin[2]
[1]Binzhou Polytechnic, Binzhou, Shandong 256600, China
[2]Binzhou Polytechnic, Binzhou, Shandong 256600, China

Abstract: In this context, all walks of life began to adapt to the direction of national economic development and carry out transformation and adjustment to protect their own market rights and interests. since the reform and opening up, China's economy has developed vigorously, and the market economic system is becoming more and more mature and moving towards a higher stage. As an important means to maintain the stable development of enterprises, economic management has an important impact on the long-term development of small and medium-sized enterprises and large enterprises. With the development of social economy, the market share of small and medium-sized enterprises has increased, and gradually become the backbone of China's economic development. Combined with the new e-commerce environment, this paper analyzes and discusses some new methods and ideas of logistics management at the present stage.

Keywords: statistics; logistics management e-commerce; application

*Corresponding author. Email: Lqian27@163.com

Received 03 August 2022, Revised 15 August 2022, Accepted 22 August 2022

1.Introduction

With the help of statistics, it can effectively improve the quality of economic management. As one of the disciplines of data application, statistics takes the mathematical model as the medium and basis, Especially in the context of the rapid development of science and technology, the value of statistics in economic management has gradually become prominent. Collects and arranges the relevant data with the help of the system, and then analyzes and judges the future development in combination with the data, so as to provide a scientific and effective basis and reference for subsequent decision-making. However, due to the influence of ideas and other factors, the application of statistics in economic management is low, and it is difficult to give full play to its value. In order to strengthen the cognition of the application value of statistics in economic management and understand the application path of statistics in economic management by improving the control of the relationship between statistics and economic management,starting from the overview, application value and application path, this paper analyzes the application of statistics in economic management, So as to achieve the goal of improving the flexibility of statistical application and promote the stable development of economic management.

2. Overview of the relationshio between economic management and statistics

2.1 Description of the economic management

From the perspective of economy, economic management is mainly used for the analysis of the distribution law of value in production links and the interpretation of basic concepts Economic management mainly includes "economy" and "management". From the perspective of management, the work of economic management involves various social disciplines, the study of various social management activities. In short, the core task of economic management is to excavate the production law in order to promote the stable development of market economy[1]. From the perspective of relationship, economic management is the intuitive performance of statistical discipline. Economic management mainly refers to the process of improving the rationality of resource allocation in production links and social productivity with the help of various management means. The effectiveness of statistics can be judged from the quality and effectiveness of economic management.

2.2 Introduction of the statistics

Then in the early 21st century, statistics has developed in an all-round way and the accuracy and efficiency of operation have been greatly improved. Nowadays, driven by the rapid development of science and technology. As one of the social practical disciplines, statistics mainly refers to the process of obtaining the necessary information and data with the help of various means, and combining the data to judge and predict the measurement object. At present, statistics has a development history of more than a century. It has gradually become an important data

2022@ The American Computational Science Society. All rights reserved.

support for enterprise production and operation. Therefore, it can be seen that the value of statistics in economic management. From the perspective of relationship, statistics is the data support of economic management, which can provide basic data knowledge for economic management and ensure the clarity and the direction and road of economic management. In the late 20th century, statistics has developed well in the West. During this period, excellent test methods have also been developed. the value of statistics in the market economic system is becoming increasingly prominent.

2.3 The relationship between the statistics and economic management

Based on big data, analyze the law of industrial economic development, provide scientific data reference for macro-control of market economy and improve the quality of enterprise operation and management. As an integral part of Applied Mathematics, statistics is mainly used in data mining and data extraction. Especially in the context of the integrated development of the world economy, the intensity of competition in various industries has increased significantly. As a provider of decision-making data, statistics is an important path to improve the rationality of resource allocation, and its value in economic management has increased significantly. Driven by the rapid development of data mining technology, statistical analysis methods are becoming more and more mature, and the application rate of big data analysis method in economic management is significantly improved. On the whole, statistics can provide scientific data for economic management and provide direction for economic management, while economic management is the embodiment of the value of statistics and directly reflects the effectiveness value of statistics. The two belong to a complementary relationship.In this context, the integration of statistics and economic management has been significantly improved.

3. Application value of statistics in the economic management

3.1 Introduction of the microeconomics

In the context of economic slowdown, the profitability of some industries has declined, which has improved the market competitiveness of this field. The main body of microeconomics is enterprises. Economic management from the perspective of enterprises mainly refers to the process in which enterprises formulate forward-looking economic development strategies based on the data in their field. In the process of economic management, enterprise managers can comprehensively and systematically analyze the enterprise through the big data analysis method, and formulate and adjust the development plan in combination with the data, Therefore, grasping the development trend of the industry has become an important path for enterprises to reduce business risks and improve the order of operation and management. So as to improve the risk aversion ability of the enterprise and promote the stable development of the enterprise.

3.2 Introduction of the macro economy

Under the influence of market economy development and national policy regulation, China's economic development model has changed. At present, China's economic development has gradually slowed down and grown in the direction of high quality. However, due to the influence of objective factors such as statistical development and scientific and technological development, the value of statistics is limited[2]. At the same time, all walks of life have also changed their development direction in accordance with the changes of market development. From the previous data, we can find that there are rules for economic development. However, with the continuous development of statistics, the accuracy of statistical data analysis and prediction has been significantly improved. With the help of big data analysis method, we can timely and accurately obtain massive data information, analyze and predict the macro laws of economic development with computer as the media.

3.3 Information processing

With the help of statistics, it can improve the timeliness and accuracy of data analysis and provide timely, accurate and effective data information for decision-makers. It can not only provide basic data analysis for economic management, but also integrate structural and structural information of enterprises and transfer data to decision-making level through pictures or web pages[3]. The timeliness of data acquisition has a direct impact on the decision-making of enterprises and economic management units. The timeliness and efficiency of data analysis and processing.It effectively improves the predictability of enterprise decision-making, and provides necessary data support for the optimization of enterprise management process.

2022@ The American Computational Science Society. All rights reserved.

4. Application path of statistics in economic management

From the perspective of economic management, the application path of statistics is mainly shown as follows.The application value of statistics in economic management is mainly reflected in research prediction, data management and visualization research.

4.1 The macroeconomic regulation

As one of the components of economic management, macroeconomic regulation and control is economic management from a big perspective. First, capital operation and project investment. In the process of macroeconomic regulation and control, we can analyze the law of economic development with the help of statistics, predict and judge the potential crisis of future economic development, and then select appropriate methods to adjust and optimize project investment and capital operation in combination with the current economic development state, so as to promote the improvement of the quality of macroeconomic regulation and control, So as to reduce the business risk of enterprises and industries[4]. Second, the business direction of the enterprise. With the help of statistics, enterprises can analyze the industry development data, grasp the stakeholders, adjust the business direction in combination with the influencing factors of economic development, grasp the best opportunity for market advance and retreat, and then achieve the effect of improving the quality of enterprise operation and management .

4.2 Marketing planning

Compared with the traditional marketing planning process, this process has low dependence on labor, can directly obtain data with the help of the data platform, and the data has the characteristics of high accuracy and timeliness.Based on statistics, it can build a marketing data management platform, uniformly collect and sort out the information of product types, product functions, market development and other aspects involved in the enterprise's business process, and release it with the help of the management platform. With the help of data management platform, enterprises can timely obtain and understand the actual needs of the market, provide direction for their own marketing development, so as to achieve the goal of increasing market share and create conditions for the improvement of economic benefits of enterprises. Before release, the management platform will screen the relevant data, exclude the unorganized data, and mark the consumption hot spots.

4.3 Industrial operation management

From the perspective of macro economy, under the condition of industry unification, the operation and management modes among enterprises have high similarity, which is embodied in many aspects such as evaluation system, business plan and operation process. In addition, it can also screen out useless data in the process of operation and management with the help of statistics, extract and emphasize representative and typical data, and take it as the data basis for enterprise operation plan adjustment and operation plan reform, so as to promote the improvement of the tightness of microeconomic and macroeconomic. Generally speaking, the influencing factors of industrial operation management mainly include micro subject and macro economy[5]. With the help of statistics, we can analyze and grasp the differences in enterprise operation, and reduce the possibility of repeated operation through effective avoidance, so as to promote the rationality of enterprise resource allocation and utilization. From the perspective of micro subjects, enterprises can understand the overall situation of economic development with the help of statistics, and adjust the operation and management plan based on national policies to promote the stable development.

4.4 The risk prevention and control management

The application of statistics in risk prevention management is mainly reflected in: first, the formulation of prevention plan. By integrating statistics into risk identification, enterprises can understand the big data of enterprise business status and market environment changes with the help of statistics, identify enterprise business risks and predict the future development of enterprises, and then formulate corresponding prevention and control plans and planning cycle funds.Risk prevention and control management is an important part of economic management and the key to improving enterprise risk aversion ability and promoting stable development[6]. By integrating statistics into risk prevention and control, it can improve the risk identification and risk prediction, and promote the quality of enterprise risk prevention and control management. Generally speaking, economic management risk mainly includes external risk and internal risk. External risk involves environmental risk and market risk. Internal risk is reflected in management risk, personnel risk and decision-making risk. The second is the analysis of management elements. Enterprises can analyze and judge the elements of risk prevention and control management with the help of statistics,

2022@ The American Computational Science Society. All rights reserved.

understand the scope of enterprise risk management.

4.5 Capital operation analysis

Generally speaking, the application of statistics in fund operation management is mainly manifested as follows: first,; Second, financial data analysis. Enterprises can analyze financial data with the help of statistics, and take this as the basis to control the capital flow status, value realization ratio and product return in various business and development links of enterprises, so as to promote the improvement of decision-making quality grasp the profit and loss data[7]. With the help of statistics, enterprises can make pie charts and bar charts of phased capital flow, intuitively and clearly understand the characteristics and development direction of enterprise capital flow in different periods, draw profit and loss experience and lessons, and provide data support for the long-term development of enterprises. The quality of capital operation control has a direct impact on enterprise operation.

5. Conclusion

To sum up, economic management mainly includes macroeconomic regulation and control and microeconomic management. The contents involved in economic management are more complex, which increases the difficulty of controlling economic management. By integrating statistics into economic management, it can provide timely and scientific data support for industrial operation management, risk prevention and control management and macroeconomic regulation. While reducing the difficulty of economic management, it can also promote the scientific improvement of economic management, provide data support for the stable and long-term development of enterprises.

References

[1] Zhao Jing on the application of statistics in economic management [J] economic and trade practice, 2017 (4): 252-254
[2] Li Yang's application of statistics in economic management [J] economic and trade practice 2016 (2): 57-60
[3] Yuan Lin analyzes the application of statistics in economic management activities [J] new business week, 2019 (9) - 13
[4] Research on the application of Li Chuang's statistics in the field of economic management [J] mall modernization, 2015 (6): 288=289
[5] Long Xiang explores the application of statistics in economic management [J] research and practice of Arts and science navigation education 2018 (9): 199-202
[6] Luo Haowen on the application of statistics in economic management [J] Caixun, 2017 (19) – 41-43
[7] Zheng Shijie's research on the impact of statistics in market economy management [J] knowledge economy, 2020 (7): 175-177

2022@ The American Computational Science Society. All rights reserved.