

The Application of Food Safety Standards in Food Safety Management Practices

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Abstract

With the rapid development of the food industry, food safety issues have gradually attracted people's attention. Food safety standards are one of the key measures to ensure food safety. This article aims to explore the application of food safety standards in food safety management practices. Firstly, the concept and significance of food safety standards are introduced, followed by an analysis of the process of formulating and implementing food safety standards. Subsequently, the article focuses on the application of food safety standards in food safety management practices, including food safety supervision, self-discipline of food production enterprises, and consumer self-protection. Finally, based on the current situation of domestic and international food safety standards, suggestions are put forward to strengthen the construction and implementation of food safety standards, in order to better safeguard the health and safety of consumers.

Keywords

Food safety, standard formulation, supervision, self-discipline awareness

1. Introduction

With the continuous development of the global economy, the food industry, as one of the essential industries in human production and life, is also growing rapidly. However, with the expansion of the scale of the food industry and the increasing degree of globalization, food safety issues are becoming increasingly prominent, attracting widespread attention and high attention from global consumers. Food safety issues not only directly affect the health and safety of consumers but also have a significant impact on the reputation and economic benefits of food production enterprises. In order to safeguard the health and rights of consumers, governments and international organizations around the world have issued a series of food safety laws and standards to regulate and manage the entire process of food production, processing, and sales. As an important component of food safety management, food safety standards can not only effectively reduce food safety risks and improve food safety levels but also promote international trade and the development of the food industry. Therefore, this article aims to explore the application of food safety standards in food safety management practices, in order to play a positive role in improving food safety levels, safeguarding consumer health, and maintaining the sustainable development of the food industry.

2. The Concept and Significance of Food Safety Standards

Food safety standards refer to specific indicators and requirements for limiting and regulating harmful substances, microorganisms, nutrients, and other factors in food [1]. It is one of the important means to ensure food safety. The development and implementation of food safety standards is one of the core contents of modern food safety management, playing an important role in ensuring food safety, protecting consumer health, and maintaining social public interests.

2.1 Definition of Food Safety Standards

Food safety standards refer to a series of regulations and requirements developed to ensure food safety, which are used to regulate and manage the entire process of food production, processing, transportation, storage, and sales. Food

safety standards are an important basis for guiding food production companies in their production management and guiding food safety regulatory agencies in their regulatory activities. They are also one of the important measures to ensure food safety [2]. Food safety standards are developed by national governments, international organizations, or industry associations and have two characteristics: mandatory and guiding. Mandatory standards are regulated by national laws, regulations, or administrative provisions and have legal binding force on the production, processing, storage, transportation, and sales of food. Guiding standards are developed by industry associations or national standardization committees as guidelines for industry self-regulation and have a guiding and promoting effect on food production and processing.

2.2 The importance and significance of food safety standards

The development and implementation of food safety standards are crucial for safeguarding consumer health and rights, maintaining the reputation and economic benefits of food production companies, promoting international trade, and fostering the development of the food industry. Firstly, food safety standards serve as important measures for protecting consumer health and rights. Food safety issues are international in nature, and governments and international organizations have introduced a series of laws and standards to regulate and manage the entire process of food production, processing, transportation, storage, and sales. The development and implementation of food safety standards can effectively reduce food safety risks and protect the health and safety of consumers.

Secondly, food safety standards are of great importance for maintaining the reputation and economic benefits of food production companies. As globalization continues to expand, food safety issues have become a significant challenge for food companies. If food companies can strictly adhere to food safety standards, they can not only improve the quality and reputation of their own products but also reduce food safety risks, ensuring stable and sustainable economic development. Lastly, the development and implementation of food safety standards are significant for promoting international trade and the development of the food industry. The regulation and management of food safety standards are essential for the development of international trade, and the standards introduced by governments and international organizations not only promote international trade but also provide guidelines and protection for the development of the food industry.

3. Development and Implementation of Food Safety Standards

The development and implementation of food safety standards is a key step in ensuring food safety. Only by strictly adhering to scientific principles and standard processes, and by establishing strict food safety standards and implementing effective measures such as supervision, testing, evaluation, and emergency response, can food safety problems be effectively prevented and controlled, and consumers' health and safety can be guaranteed. At the same time, governments, food companies, and all sectors of society should work together to strengthen the supervision and management of the development and implementation of food safety standards, and create a good atmosphere for food safety.

3.1 The process of developing food safety standards

The process of developing food safety standards involves multiple stages, including information collection, assessment, development, and revision. Firstly, information collection is the first step in developing food safety standards, which involves gathering relevant information about food safety, such as laws, regulations, technical standards, and scientific research findings. Secondly, assessment is the core stage of developing food safety standards, which includes three steps: risk assessment, risk management, and risk communication [3]. Risk assessment involves collecting, organizing, and analyzing hazard factors and food safety information in order to evaluate the exposure level of the population to these factors and their degree of harm to health. Risk management involves taking preventive, monitoring, and control measures after assessing and analyzing risks, in order to reduce or eliminate the threat of food hazards to human health. Finally, risk communication involves disseminating food safety risk information to the public through information release, warning, and other means, to guide consumers in making the right choices for food and to protect their health and safety.

The contribution of scientific research results to the development of food safety standards cannot be ignored. The continuous development and progress of modern science and technology have provided more abundant and accurate scientific data and research findings for the development of food safety standards. Therefore, the development of food safety standards must be based on scientific principles and methods, and must be strictly adhered to.

3.2 The implementation process of food safety standards

The implementation process of food safety standards includes multiple steps such as regulation, detection, assessment, and emergency response. Regulation refers to the supervision and management of food production, processing, transportation, and sales by the government or relevant departments to ensure food safety. Detection involves testing and

analyzing harmful substances, microorganisms, and nutrients in food, providing scientific evidence for the formulation of food safety standards. Assessment involves evaluating the implementation of food safety standards, identifying and solving problems, and improving the food safety supervision system. Emergency response refers to taking timely measures to minimize and eliminate food safety risks and ensure the health and safety of consumers in the event of a food safety incident.

In the implementation process of food safety standards, coordination and cooperation between each step are crucial. Regulatory agencies must strengthen their supervision of the implementation and implementation of food safety standards to ensure that food production, processing, transportation, sales, and other processes meet standard requirements. At the same time, food companies must strengthen their self-regulation awareness, enhance their food quality and safety awareness and capabilities, implement food safety standards, and effectively safeguard the health and safety of consumers.

Social supervision should also be strengthened during the implementation of food safety standards. Social supervision can promote regulatory agencies to fulfill their responsibilities, encourage food companies to strengthen self-regulation, and promote consumer self-protection and the right to information. Therefore, the government should strengthen the establishment and improvement of social supervision mechanisms, expand public participation and the right to information, enhance the popularization and publicity of food safety knowledge, guide the public to choose food correctly, and jointly create a good atmosphere for food safety.

4. Application of Food Safety Standards in Food Safety Management Practice

With the frequent occurrence of food safety issues, the application of food safety standards in food safety management practice has become increasingly important. As an important means to ensure food safety, food safety standards play an important role in food safety supervision, self-discipline of food production enterprises, and self-protection of consumers.

4.1 Application in Food Safety Supervision

In food safety supervision, food safety standards play an important role in standardizing and guiding. Regulatory authorities supervise and inspect whether food production enterprises comply with relevant food safety standards, require immediate rectification if problems are found, and prevent food safety issues [4]. At the same time, regulatory authorities dynamically update and revise food safety standards, adjust and improve the food safety management system in a timely manner, and better adapt to the development and changes of the food safety situation.

4.2 Application in Self-Regulation of Food Production Enterprises

Self-regulation of food production enterprises is an important part of ensuring food safety, in which food safety standards also play an important role. When formulating their own food safety standards, enterprises can refer to relevant food safety standards formulated by the state and industry, improve their internal food safety management system, and improve product quality and safety. At the same time, enterprises can conduct self-supervision on the implementation and execution of food safety standards, promptly discover and solve food safety problems, and enhance consumers' trust and satisfaction in enterprise products [5].

4.3 Application in Consumer Self-Protection

When purchasing food, consumers can protect themselves by understanding and using food safety standards. Consumers can choose products that comply with national and industry food safety standards to reduce the probability of food safety problems. At the same time, consumers can also learn about the relevant knowledge of food safety standards, improve their food safety awareness and ability, avoid being deceived and misled by unscrupulous businesses, and better protect their health and safety.

5. Analysis of Current Situation of Domestic and International Food Safety Standards

5.1 Analysis of Current Status of Domestic Food Safety Standards

As a large country, China's history of food safety standard development can be traced back to the 1950s. With the development of society and the improvement of people's living standards, more and more people began to pay attention to food safety issues, and food safety standards gradually received attention and improvement. Currently, the formulation and publication of China's food safety standards are mainly undertaken by national institutions and departments such as the General Administration of Quality Supervision, Inspection and Quarantine, and the State Administration for Market Regulation.

China's food safety standards mainly include three levels: "National Standards for Food Safety," "Industry Standards

for Food," and "Enterprise Standards." Among them, national standards are the most basic standards, with the strictest requirements for food safety issues. The industry standards have different requirements for different food industries. Enterprise standards have more specific regulations on the production process, quality control, and other aspects of the enterprise.

5.2 Analysis of Current Status of Foreign Food Safety Standards

Compared with China, developed countries' food safety standard development and implementation are more mature and strict. In Europe, food safety standards are mainly developed and published by the European Union, including the "Food Code," "Food Hygiene Law," "Food Additives Law," etc. These standards cover the production, storage, transportation, sales, and other aspects of food, ensuring the safety of food in the European region.

In the United States, food safety standards are mainly developed and implemented by the Food and Drug Administration (FDA) and the United States Department of Agriculture. The FDA is mainly responsible for regulating food safety and quality, while the US Department of Agriculture is responsible for developing nutritional standards and regulations for food. The US food safety standards main

6. Recommendations for Strengthening the Construction and Implementation of Food Safety Standards

With the rapid development of the social economy, people's attention to food safety issues has been increasing. To safeguard the health and interests of consumers, it is necessary to strengthen the construction and implementation of food safety standards. This chapter will propose relevant recommendations from aspects such as improving the mechanism for formulating food safety standards, strengthening supervision of the implementation of food safety standards, enhancing the self-discipline awareness of food production enterprises, and improving the dissemination of consumer food safety knowledge.

6.1 Improving the Mechanism for Developing Food Safety Standards

The development of food safety standards directly affects the health and interests of consumers. The current mechanism for developing food safety standards in China still needs further improvement. A scientific, fair, and transparent mechanism for developing food safety standards should be established to ensure the scientific, authoritative, and reliable nature of the standards developed. At the same time, attention should be paid to strengthening the comparison and learning of domestic and international food safety standards, and to quickly forming a food safety standard system that is in line with international standards to improve China's standard development level.

6.2 Strengthening Supervision of the Implementation of Food Safety Standards

Developing sound food safety standards is a prerequisite for safeguarding consumer health and interests, but having standards alone is not enough. The current food safety regulatory authorities in China need to strengthen supervision of the implementation of food safety standards, establish sound mechanisms for implementing standards and food safety traceability, and take strict action against food safety violations. At the same time, supervision should be strengthened at all stages of food production, operation, and distribution, and strict control of food production and sales should be implemented to ensure food safety.

6.3 Enhancing Self-discipline Awareness of Food Production Enterprises

As the main body responsible for food safety, food production enterprises should consciously abide by relevant national and local laws and regulations and improve their own food safety management level to ensure the safety and quality of their products. Food production enterprises should be guided to establish and improve their own inspection systems and HACCP food safety management systems to control the safety of food from the source. At the same time, food safety knowledge should be promoted and training should be provided to enhance food safety awareness among enterprises.

6.4 Strengthening Public Awareness of Food Safety among Consumers

Consumers are the ultimate beneficiaries of food safety. Improving consumer knowledge and awareness of food safety is of great significance for ensuring food safety. Various forms of food safety knowledge should be disseminated to consumers to help them understand how to choose, purchase, store, and consume safe food. At the same time, awareness of consumer rights protection should be promoted to increase their attention to and ability to protect their rights on food safety issues.

In the process of strengthening the construction and implementation of food safety standards, it is also necessary to

strengthen scientific and technological innovation and technological progress, develop food safety testing and monitoring technologies, improve the accuracy and efficiency of detection methods, strengthen the prediction and assessment of food safety risks, and timely discover and solve food safety problems. In addition, cooperation and communication among government departments at all levels need to be strengthened to form a joint force to promote the construction and implementation of food safety standards and safeguard consumer rights and social stability.

7. Conclusion

Food safety is a major issue that concerns the entire society, and it is also a complex system engineering. In order to protect the health and interests of consumers, it is necessary to strengthen the construction and implementation of food safety standards. We have conducted a detailed analysis and discussion on the definition, types, application, and current situation of food safety standards, and put forward four suggestions to improve the mechanism for developing food safety standards, strengthen the supervision of food safety standards implementation, enhance the self-discipline of food production enterprises, and strengthen the popularization of consumer food safety knowledge. Improving the mechanism for developing food safety standards can improve the scientific, authoritative, and reliable aspects of standard development, further safeguarding the interests of consumers. Strengthening the supervision of food safety standards implementation can establish a sound mechanism for implementing standards and a food safety traceability mechanism, crack down on food safety violations, and ensure food safety. Enhancing the self-discipline of food production enterprises can control the safety of food from the source, establish and improve enterprise self-inspection system and HACCP food safety management system, and ensure the safety and quality of food. Strengthening the popularization of consumer food safety knowledge can raise consumers' awareness of food safety and reduce the occurrence of food safety incidents.

In conclusion, strengthening the construction and implementation of food safety standards is a long-term and complex process. We need to continuously summarize experiences, strengthen the development and implementation of standards, raise the awareness of food safety of enterprises and consumers, jointly maintain food safety, and safeguard the health and interests of the people.

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