Rethinking Regulatory Frameworks for Food Safety in China

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Abstract: Food safety has become a significant global concern, with challenges such as information asymmetry, complex risks, and limited regulatory resources hindering effective governance. In response, collaborative governance, involving multiple stakeholders, has emerged as a crucial approach to address food safety issues. This paper explores the driving factors behind the establishment of a collaborative food safety governance system in China. It examines the roles of government, businesses, social organizations, and consumers in shaping a transparent and efficient regulatory framework. The study highlights the evolution of China's food safety governance, from government-centric approaches to a more inclusive model that promotes joint participation. By analyzing the interactions among key stakeholders, this paper provides insights into the challenges and opportunities of modernizing food safety governance. The findings aim to contribute to the theoretical understanding and practical implementation of collaborative governance systems, offering valuable lessons for China and other countries seeking to improve food safety regulation.

1. Introduction

With the acceleration of globalization and the continuous extension of food supply chains, food safety has become a critical global issue. It not only concerns public health and social stability but also plays a crucial role in national governance and economic development. However, the complexity and challenges of food safety governance make it difficult for a single entity to effectively address the increasing risks. For years, issues such as information asymmetry in the food market, scarce regulatory resources, and the fragmentation of responsibility for food safety have created an urgent need for collaborative governance[1].

Against this backdrop, the collaborative governance model for food safety has gained increasing attention. As the world's largest developing country, China faces rapid growth in food production and consumption, necessitating the establishment of a multi-stakeholder, transparent, and efficient food safety governance system[2]. In recent years, the rise of civil society, the strengthening of industry self-regulation, and the ongoing reforms in the government regulatory framework have made collaborative governance a key path to enhancing the effectiveness and responsiveness of food safety regulation. Through the joint participation of government, businesses, social organizations, and consumers, it is possible to address the shortcomings of traditional regulatory models and improve the comprehensiveness and sustainability of food safety governance[3].

This emerging trend of collaborative governance in China's food safety domain also offers valuable lessons and potential benchmarks for other countries. By dissecting the Chinese experience, international observers can gain insights into how to mobilize different sectors, balance their interests, and build an effective governance network. Moreover, as global trade and food exchanges intensify, a harmonized and collaborative approach to food safety is essential for ensuring seamless cross-border food flows. China's exploration in this regard can potentially contribute to the formulation of international norms and protocols that promote safer and more reliable global food systems. Additionally, the integration of advanced technologies such as blockchain and the Internet of Things in the collaborative framework not only benefits China's domestic food safety management but also showcases innovative solutions that could be replicated and adapted worldwide, thereby spurring a new era of global cooperation and innovation in safeguarding food safety.

This paper endeavors to analyze the driving factors for establishing a collaborative food safety

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governance system, probing into the challenges and opportunities during China's food safety governance modernization. It scrutinizes the roles and obligations of stakeholders like the government, businesses, and social organizations in promoting such governance. Through this, it aims to offer theoretical and practical guidance for China and other nations. The study makes valuable contributions. It comprehensively grasps the evolution of China's food safety governance, analyzes entity interdependencies for a novel relationship framework applicable globally, and reveals the significance of political commitment and regulatory reforms. The research involves reviewing historical policies, conducting case studies of initiatives, gathering data via surveys and interviews, making international comparisons, and exploring emerging technologies like blockchain and IoT to enhance monitoring and sharing, with the goal of devising innovative strategies for the future development of food safety governance.

2. The Evolution of Collaborative Governance in China's Food Safety System

The food market has long been plagued by issues such as information asymmetry, complex and hidden risks, and scarce regulatory resources[4]. The capacity of any single entity is limited, and only through the joint efforts of the public, private, and third-party sectors can safer food be provided at lower costs. Since the implementation of the Food Hygiene Law in 1995, China has encouraged social organizations and individuals to engage in social supervision of food hygiene. The concepts of public participation, industry self-regulation, and media oversight have been progressively integrated into national food safety policies, such as the 11th Five-Year Plan for Food and Drug Safety and the Food Safety Law. However, the true beginnings of collaborative governance reform can be traced back to 2013, with the issuance of the Guiding Opinions on Local Reforms to Improve the Food and Drug Supervision and Management System, which provided the first complete depiction of a collaborative governance model involving corporate self-regulation, government supervision, social collaboration, public participation, and legal guarantees. Analyzing the driving factors behind this reform is crucial for gaining a deeper understanding of China’s approach and direction in establishing a collaborative governance system for food safety.

3. Interdependence Among Entities Due to Scarcity of Regulatory Resources

China’s food safety management has long been government-centered, influenced by over two thousand years of feudal rule and the planned economy. The government monopolizes food safety legislation, certification, and inspection[5]. However, with widespread information asymmetry in the food market, it is unrealistic for the government to solve all food safety problems alone. By 2010, China had over 10 million food enterprises, mostly small businesses with fewer than 10 employees, and many unregulated vendors and small shops. Regulatory bodies face significant challenges, such as limited budgets and a shortage of professional staff. For instance, in Guangdong, the ratio of regulatory personnel is below the national average of 0.015%. In Shanghai, 164,000 businesses are supervised by just 2,400 regulators, and in Wenzhou, food safety enforcement officers account for only 0.01% of the population, with regulatory funding at just 0.1% of local GDP. As the food industry grows and consumption diversifies, managing food safety risks becomes more complex. The government can no longer handle it alone and must seek cooperation with enterprises, NGOs, media, and experts to address the issue effectively[6].

4. The Demand for Self-Governance of Food Safety in Civil Society

Civil society refers to non-governmental organizations (NGOs) that represent citizens' interests, forming a "third sector" separate from government and business. By June 2018, China had 784,000 registered social organizations, a 42% increase since 2010. Industry associations like the China Food Industry Association and the China Association for Science and Technology support civil society's growing role in food safety governance, offering an opportunity to innovate the food safety model and improve democratic participation[7].

In recent decades, China has seen significant economic and social changes, blurring public-private sector boundaries[8]. Civil society actors now seek active participation in governance, not just passive roles. For example, the "Xicheng Grandma" organization in Beijing, with 100,000 volunteers, handles food safety governance in Xicheng District.

Collaborative governance, focusing on shared goals, is the ideal response to civil society's rise[9]. Moving away from a government-centered approach, this system encourages equal participation from both government and civil society in decision-making.

5. Political Commitment to Food Safety

Since the 1980s, China has made progress in reducing counterfeit and substandard food. However, there are still deficiencies in food safety regulation, legal frameworks, and standards. The regulatory system remains reactive, often driven by crises rather than proactive measures[10].

Food safety risk monitoring, evaluation, and early warning systems are lacking[11]. Reform is often triggered by major incidents, leading to emergency responses like selective sampling, surprise inspections, and harsher penalties. For example, the 2004 Fuyang milk powder scandal prompted the government to launch a crackdown on illegal food practices, particularly in rural areas.

The regulatory style remains top-down and administrative[12], with the public excluded from oversight roles and limited to receiving food safety education. Rapid industrialization and urbanization have increased both food production and consumer demand for quality and safety[13], making it urgent to establish a more scientific regulatory system. Since the 2013 Third Plenary Session, China has begun significant reforms to modernize its governance system. Food safety governance is now a key part of national governance modernization, focusing on transforming government functions and restructuring regulatory responsibilities.

6. The Path and Practice of Collaborative Governance in Food Safety

To promote collaborative governance in the food safety domain, China has been exploring and implementing a series of measures and initiatives. One of the core aspects is the strengthening of corporate self-regulation. Food enterprises are being encouraged and required to establish more comprehensive internal quality control systems. They need to conduct regular self-inspections, from raw material sourcing to production processes and final product packaging. For example, large food companies like Yili and Mengniu have invested heavily in advanced quality inspection equipment and professional teams to ensure the safety and quality of their dairy products. Small and medium-sized enterprises are also being guided to improve their production standards through technical support and training provided by industry associations and government agencies.

Another crucial path is enhancing social collaboration. Industry associations play a vital role in this regard. They act as a bridge between enterprises and the government, facilitating the dissemination of regulatory policies and industry best practices. For instance, the China Bakery and Confectionery Industry Association regularly organizes seminars and workshops for its member enterprises to share the latest food safety technologies and management experience. NGOs and consumer groups are also becoming more active. They conduct food safety awareness campaigns, encourage consumers to report food safety issues, and participate in food safety supervision activities. In some cities, consumer associations have set up special hotlines and online platforms for consumers to easily report problems they encounter.

In terms of public participation, the government is actively promoting the transparency of food safety information. Through official websites, mobile applications, and social media platforms, the public can access information about food production licenses, inspection results, and recall notices. This enables consumers to make more informed choices and also encourages them to participate in the supervision of the food market. For example, the "Food Safety Information Public Service Platform" in Shanghai provides detailed information about local food enterprises and their products, which has received high praise from the public.Legal guarantees are continuously being strengthened. The Food Safety Law has been revised and improved several times to clarify the

rights and obligations of all parties involved in food safety governance. Severe penalties are imposed on illegal food production and sales activities. For example, for those who produce and sell toxic and harmful food, they may face heavy fines, imprisonment, or even life imprisonment. This legal deterrence force effectively restrains the illegal behavior of enterprises and individuals and provides a solid legal foundation for collaborative governance.

However, in the process of promoting collaborative governance, there are still some challenges. The coordination among different sectors needs to be further enhanced. There may be conflicts of interest or differences in goals between enterprises, NGOs, and the government. For example, some enterprises may focus more on economic benefits and neglect food safety requirements, while some NGOs may lack professional knowledge and skills in food safety supervision. The information sharing mechanism also needs to be improved. At present, there is still a lack of effective channels and platforms for the timely and accurate sharing of food safety information among different parties. China's food safety collaborative governance has made certain achievements, but it still faces a series of challenges. Future efforts should focus on further optimizing the collaborative governance mechanism, strengthening the capacity building of all parties, and promoting the in-depth integration of various resources to continuously improve the level of food safety in China and protect the health and safety of the people.

7. Conclusion and respects

7.1 Conclusion

China's collaborative governance system for food safety has indeed witnessed a remarkable transformation. In the past, with the long-standing influence of feudal rule and the planned economy, the government-centered approach prevailed. However, the complex and dynamic nature of the food market, characterized by extensive information asymmetry, a large number of small and scattered food enterprises, and the increasing diversification of consumption patterns, has made it clear that a single-entity governance model is insufficient. The shift towards a multi-stakeholder collaborative governance model is a significant step forward.

The Food Safety Law and related policies have served as crucial pillars in this transition. They have not only mandated clear responsibilities for each stakeholder but also established mechanisms for resource sharing. For example, the law encourages food enterprises to share their production and quality control data with regulatory authorities and industry associations, facilitating a more comprehensive understanding of the entire food supply chain. Transparency has been enhanced through various means, such as public disclosure of food inspection results and enterprise compliance information. This enables consumers to make more informed choices and also puts pressure on enterprises to maintain high standards. In terms of risk management, the collaborative system allows for a more holistic approach. Different stakeholders can contribute their unique perspectives and capabilities. Social organizations and the public can report potential risks and anomalies in a timely manner, while enterprises can implement preventive measures based on their industry knowledge and experience, and the government can coordinate and enforce regulations effectively.

7.2 Prospects

The future of China's food safety governance holds both great opportunities and challenges. The advent of advanced technologies like big data and AI offers unprecedented possibilities for precise food safety monitoring. Big data can collect and analyze vast amounts of information related to food production, distribution, and consumption, identifying potential risks and patterns that were previously undetectable. For instance, it can track the origin and journey of food products in real-time, ensuring their authenticity and safety. AI can be applied in quality inspection, where intelligent algorithms can quickly and accurately detect defects or contaminants in food, reducing the margin of error compared to traditional inspection methods.

Nevertheless, several hurdles need to be overcome. Balancing the diverse interests of

stakeholders is a complex task. Enterprises may strive for profitability, while social organizations and the public may prioritize public health and environmental protection. Achieving a harmonious coexistence and cooperation among these different interests requires continuous dialogue, negotiation, and the establishment of fair incentive mechanisms. In the context of globalization, improving international cooperation in food safety is essential. With the increasing volume of food imports and exports, China needs to align its food safety standards and practices with international norms, share best practices with other countries, and jointly address transboundary food safety issues. Moreover, the complexity of food safety risks is constantly evolving. New food additives, production techniques, and emerging contaminants pose continuous challenges. To address these, continuous research and innovation in food safety science and technology are necessary.

Despite these challenges, with the government's commitment to institutional innovations and the active participation of all sectors in cross-sector collaboration, China is on a promising path. By learning from international experiences, leveraging technological advancements, and strengthening stakeholder cooperation, a more robust and future-oriented food safety governance system can be established. This system will not only ensure the health and safety of the Chinese population but also contribute to global food safety efforts and enhance China's international reputation in food safety governance.

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