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Crisis Response and Supervision System for Food Security: A Comparative Analysis between Mainland China and Taiwan

Chun-Chieh Ma ¹, Han-Shen Chen ^{2,3}  and Hsiao-Ping Chang ^{2,3,*}

¹ Department of Public Administration and Management, National University of Tainan, No.33, Sec. 2, Shu-Lin St., Tainan 70005, Taiwan; ccma@mail.nutn.edu.tw

² Department of Health Diet and Industry Management, Chung Shan Medical University, No.110, Sec. 1, Jianguo N. Rd., Taichung City 40201, Taiwan; allen975@csmu.edu.tw

³ Department of Medical Management, Chung Shan Medical University Hospital, No. 110, Sec. 1, Jianguo N. Rd., Taichung City 40201, Taiwan

* Correspondence: pamela22@csmu.edu.tw; Tel.: +886-4-2473-0022 (ext. 12197)

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Abstract: In Mainland China, major food security incidents have occurred with high frequency, of which the number and degree of harm are both increasing. At the same time, Taiwan's food security crisis has also been spreading. For these reasons, this article makes a comparative analysis of food security issues between Mainland China and Taiwan from a legal point of view and identifies the blind spots of the legal system and supervision using official documents and research papers regarding the most typical incidents in the period of 2008–2019. The results indicate that, compared with Mainland China, Taiwan has a better food security supervision system, and its experience with the supervision system, specific rules, social supervision, and responsibility is worth investigating. However, while there are loopholes in criminal law in Mainland China, which has not formed a complete system, criminal law in Taiwan is also weak in terms of regulation of food security incidents. Based on the results, this article puts forward suggestions with the expectation that, in the face of an increasingly severe food security crisis, Mainland China and Taiwan will strengthen their cooperation in constructing legal systems for food security supervision and inspection, exchange experience, cooperate in inspection, and share food security information to avoid rumors of food insecurity circulating in popular science. It is expected that the results and suggestions of this study will be helpful in the crisis response, as well as in the supervision systems in Mainland China and Taiwan for guarding food security. Although the comparative analysis is specific to the two regions, its characteristics are typical of food security globally, especially in Asia.

Keywords: crisis response; supervision system; food security; Mainland China; Taiwan

1. Introduction

With the rapid development of the social economy under globalization, various kinds of public emergencies in traditional and nontraditional fields have become increasingly prominent, which has become an important hidden threat to national security and people's property and life security [1]. Frequent food security incidents have resulted in the repeated questioning of the credibility of the government [2]. Researchers have found that an effective emergency system can reduce accident losses to less than 6% compared to a situation without an emergency system [3]. In view of this, in the process of dealing with crisis events, the appropriateness of the emergency response system has become the focus of researchers.

In recent years, major food security incidents have occurred frequently in Mainland China, the number and degree of harm of which are both increasing. Food security has attracted more attention from all walks of life than ever before, resulting in a crisis of public confidence in food security [4]. In terms of recent food security incidents, poisonous milk powder incidents broke out in March 2008, but due to the preparation for the Olympic Games, the local government of Hebei did not deal with these in time. The poisonous milk powder incident continued until the New Zealand government reported the incident to China in September. This incident affected China's foreign trade and seriously damaged China's international image [5]. This incident caused social unrest because the melamine mixed in the infant milk powder caused kidney lesions in infants [5]. In view of the importance of food security issues, the Food Security Law of Mainland China regulates scientific and effective supervision measures with a clear and systematic division of responsibilities for food security supervision, which provides a legal guarantee to resolve the current prominent food security issues in a proper and orderly manner. However, due to the unique and complex market environment of Mainland China, food security supervision will still face multiple dilemmas with respect to the system and technology [6].

Taiwan's food security crisis has also been spreading [7]. From the "plasticizer" to the "Datong Tainted Oil" incidents, food security issues have also been emerging in Taiwan one after the other. The emergence of the poisonous starch incident in 2013 in Taiwan set off a panic in Taiwanese society. The official poisonous compound in the starch was maleic anhydride. It was originally used as a food packaging material and adhesive, but some practitioners mixed it into edible starch to increase the viscosity and elasticity of the starch. This substance was illegally added and may cause kidney damage. In April 2013, seven county and municipal health bureaus, such as New Taipei City, began to investigate the manufacturers using the poisonous starch closely. In May, the New Taipei City Health Bureau found that Mingji tofu contained the toxic starch elements, and its raw material was procured from Sanjin Powder Trading Company, located in Tainan; therefore, the Health Bureau of Tainan City continued to investigate the incident. In order to eliminate the circulation of the toxic starch in the market and require the raw material manufacturers of the starch to start providing security certificates from the downstream manufacturers, pitchmen, and food practitioners starting in June, the Health Department launched the "0527 Food Security Project". The "0527 Food Security Project" was a project for food safety control initiated by the resolution of the Conference on Research and Strategies organized by the Ministry of Health and Welfare, which invited experts from food management, science and technology, and public health and medical fields in order to solve the food safety problem caused by the malicious addition of maleic anhydride to starch. It was launched by the Health Department to check all starch manufacturers in Taiwan. Because the poisonous starch incident was a significant issue, it brought food security issues to the public's attention, as well as governmental actions on food security issues [4].

Mainland China and Taiwan are facing a major impact from food security issues. In the face of many major food security incidents in Mainland China and Taiwan over the years and in view of the fact that food security affects people's lives and health, this article performs a comparative study of food security in the two regions, which should help governments and nongovernmental organizations to learn from each other's progress at the levels of food supervision and the legal system and to establish an effective food supervision mechanism and rigorous legal system to protect consumers' rights and interests. Taking advantage of the promotion of the "Food Security Law" in Mainland China, this study explores the legal system of food security supervision, which should have theoretical and practical significance to solve food security problems effectively [8]. A comparative analysis of the current situation of food security in Taiwan could be helpful in implementing a cross-strait food security agreement, enhancing food security communication and mutual trust in Mainland China and Taiwan, thereby ensuring the security and health of local citizens [9].

2. Literature Review

2.1. Concept of Food Security

The precise concept of food security was first proposed by the Food and Agriculture Organization of the United Nations (FAO) at the World Food Conference in November 1974. The FAO believes that food security is a fundamental right of people that includes their subsistence rights. At this conference, the FAO defined food security as “guaranteeing that everyone can get what they need for survival and health everywhere.”

In the 1980s, the Food and Agriculture Organization of the United Nations gave a new definition of food security in response to food shortages in developing countries: “The ultimate goal of food security is to ensure that all people can buy and afford any food they need at any time.” After the 1990s, with the improvement of the economy and the increase in material consumption, the quality and nutrition of food became the theme of food security. In 1991, the International Conference on Nutrition gave a new definition of food security: “Everyone can get safe and nutritious food at any time to maintain a healthy and active life” [10].

2.2. Crisis Response and Supervision System for Food Security

Crises often occur in our daily lives. Especially in the modern era of rapid technological change, the impact of a crisis becomes more and more important. Fink described a crisis as a watershed, “turning point”, or “deterioration” of an event, which is a key time point or opportunity for decision making. The time and situation during the occurrence of the incident are not stable, thus demanding immediate decisions [11]. Coombs suggested that no organization can be free from crisis [12], so when a crisis occurs, if policymakers can respond appropriately, implement corresponding prevention/mitigation measures for the crisis incident in stages, prepare for response, advanced recovery, and other management behaviors, and cooperate with all relevant stakeholders with good communication channels, they can defuse the crisis and transform the organization from being in crisis to becoming a model for crisis management [13]. Therefore, in the modern era of academic debate, how to respond to a crisis has become an important issue [14].

Among the numerous crises from the past to the present, food security incidents have emerged one after the other in recent years and have attracted great attention from society. With regard to food security, Yeung and Morris [15] found that the main influencing factor of consumer behavior was consumers’ own perception of the food security crisis, rather than the risk of food security incidents. Therefore, previous literature has argued that the potential harms caused by food security incidents may be far less than the exaggerated crisis [16]. Smith [17] further pointed out that the public would first use their usual information channels to understand the situation in the face of the crisis. At the beginning of the event, they would be more sensitive to the information they first received and would more easily believe the information. Therefore, at the moment of the crisis, the first response is very important in influencing the public’s perception.

With the improvement of the economy and the standard of living, the public attach more and more importance to food security issues. In a multirisk society, when facing a potential food security crisis, the public collects information about new crises mainly through the media. After receiving such information, people internalize their awareness of the crisis and its risks. With modern science and technology, the circulation of information becomes easier, and the public can have a deeper and more confident understanding of the crisis [18]. According to the analysis of a study conducted by Palenchar and Heath [18], in the face of a crisis, community residents can achieve self-protection through the relevant norms of crisis response and are willing to adopt other contingency measures to make them feel more in control of the crises. Jacob et al. [19] also found that uncertainty in crisis information increases people’s fear and cognitive bias. It is important to inform consumers about the risks so that they can choose the right strategy that reflects their demand for information, their morals, and their values [20].

From those studies, the public must deal with an abundance of information in order to manage their own risk profile connected to nourishment and possibly place trust in various expert systems delivering the information in order to overcome anxiety in approaching food-related crises [21,22]. Since different groups of actors—governments or institutions on the one hand and private commercial enterprises on the other—influence decision making about food, often conflicting with each other and enhancing the anxiety in food choices [23], the public's fear or aversion about food security could be contained through both information provided by expert systems and adequate communication to trigger positive emotional responses [24].

Moreover, most public opinion concerns derive from problems with food safety and government supervision, coupled with a slow or lacking action by the government, resulting in aggravated negative public sentiment and a decrease in the credibility of the government. Therefore, the government must start from the source, from research experiments to market entry, and further improve the system at each level to strengthen approval and supervision. For these reasons, it is important to be open and transparent in policy formulation and to give people an opportunity to express their demands while using the media and other forces to increase information disclosure, actively address popular science rumors, guide the public in rational discussions, effectively protect the public's rights, and enhance the credibility of the government [25].

Accordingly, because of the increase in the risk to food security, the governments of various countries should rethink their current response programs to establish suitable food security management systems and adequate communication features. Under such a situation, priority should be given to establishing adequate norms for the crisis response to lead the execution of the related orders, as well as implementing supervision systems to reduce damage during the crisis [26]. Based on the studies, suitable norms for the crisis response can improve the public's sense of control over a crisis of food security, and a better supervision system, specific rules, social supervision, and responsibility investigation will also be helpful to prevent as well as mitigate crises in food security.

3. Methods: Comparative Analysis Approach and Qualitative Research Method

Comparative political and social research is generally defined in two ways: Either on the basis of its supposed core subject, which is almost always defined at the level of political and social systems [27], or by means of descriptive features that claim to enhance knowledge about politics and society as a process [28]. These descriptions are generally considered to differentiate the comparative approach from other approaches within political and social sciences.

Since the food security crises depicted in this study were the first major emergencies to occur in Mainland China and Taiwan after the enforcement of food security systems comprehensively adopted at that time, by adopting a comparative analysis approach, the observation of the crisis responses in these two regions could show the descriptive features of two systems so as to enhance knowledge regarding food security policies, the food security situation, and supervision issues.

Additionally, based on qualitative research, this study performs a holistic exploration of social phenomena using various data collection methods in the natural environment. The practical induction method was used to analyze data and formation theory. This is an activity to gain an explanatory understanding of the behavior and meaning construction of the research object through interaction with the research object [29]. Hence, this study also chose a qualitative research method for exploration and collected data in the period of 2008–2019, both in Mainland China and Taiwan, so as to avoid any subjective judgment and to make more objective judgments and a comparative study.

This paper takes the legal norms of food security in Mainland China and Taiwan as the research scope and identifies the blind spots of the legal system and supervision through comparative analysis using official documents and research papers regarding the two regions. It also puts forward suggestions with the expectation that Mainland China and Taiwan will learn from each other and make improvements in their responses to food security crises.

4. Food Security Situation and Supervision Issues in Mainland China

4.1. Situation of Food Security in Mainland China

In recent years, many major food security incidents have occurred frequently in Mainland China, as shown in Table 1. For this reason, food security has attracted more attention from all domains than ever before, resulting in a crisis of public confidence in food security [4].

Table 1. Situation of food security in Mainland China.

Situation	Description
The security situation of agricultural products and poultry products is worrying.	Harmful residues, such as fertilizers and pesticides, antibiotics, and other harmful substances, excessive heavy metals, etc., exist in agricultural products.
There are potential security hazards in the production, processing, and marketing of agricultural products, which can easily cause secondary food poisoning and foodborne diseases.	Due to inadequate supervision, production, processing, and marketing places often become the transmission centers of infectious diseases.
Food poisoning and foodborne diseases occur from time to time.	<ol style="list-style-type: none"> 1. The “Sanlu poisonous milk powder” incident in 2008 that resulted in 14 newborns suffering from urolithiasis; 2. The “Shuanghui lean meat powder” incident in 2011; 3. The “Vitamin C Yinqiao tablets of Guangzhou Pharmaceuticals containing highly toxic substances” case in 2013. 4. According to the statistics of the National Health and Family Planning Commission, the frequent occurrence of food poisoning and foodborne diseases poses a serious threat to food security in 2019.
The technological achievements and technical reserves of food security are inadequate.	The key detection technologies of foodborne hazards and food security control technologies in Mainland China are lagging behind those in developed areas such as Taiwan.

4.2. Issues for Food Security Supervision in Mainland China

Mainland China currently implements a multisectoral and phased supervision system [30]. In detail, before the reform, the highest coordinating body for food security in Mainland China was the Commission on Food Security of the State Council, which served as a high-level deliberative and coordinating body for food security work under the State Council. It comprised the Commission Office on Food Security of the State Council (referred to as the Food Security Office of the State Council) as the body handling daily affairs of the Commission. According to the institutional reform and functional transformation plan of the State Council approved in March 2013, the relevant organizations and affiliations will be adjusted and merged into the National Health and Family Planning Commission and the State Food and Drug Administration.

Continuing the above, the food security supervision system in Mainland China can be visualized as in Figure 1. This supervision system seems to be comprehensive, but its biggest drawback is that it is prone to unclear powers and responsibilities, overlapping functions, inefficiency, and shirking of responsibilities by the food supervision departments. Moreover, more than 10 supervision departments, including agriculture, industry and commerce, quality inspection, health, and food and medicine, are involved in various links closely related to production, processing, circulation, and consumption. If a certain link is broken and the connection is not good, the whole food supervision system will have problems [31,32].

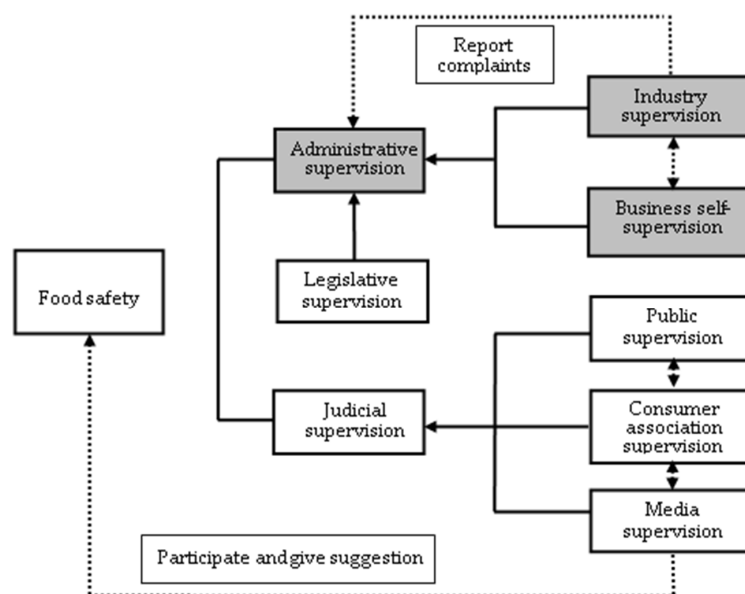


Figure 1. Food security supervision system in Mainland China.

Apart from the power and responsibility problems, in the actual operation process, the supervision system also has the problem of inadequate supervision [33,34]. Consumers often abandon attempts at solving food security problems through judicial procedures because of the high cost of safeguarding rights, which leads to the failure of mass supervision. Media supervision and consumer association supervision mainly rely on the reports of those whose rights and interests have been damaged, but because of consumers' apprehension, the effect of supervision will be greatly weakened. Enterprise self-supervision and industry supervision mainly depend on the morality and conscience of the enterprise itself, and once in conflict with economic interests, food manufacturers are likely to choose to pursue maximum benefits and market share. These two kinds of supervision are also difficult to achieve.

As in administrative supervision, information about the food supply chain is not open and transparent, so consumers can only passively believe the information issued by third-party government departments when they want to buy products manufactured by enterprises. Not only are they unable to respond to the government's supervision, but they also have little information exchange with food enterprises. For certain reasons, the government may not provide all of the real information to consumers [35]. This kind of one-way government trust very easily causes crises. Although government departments will invest much money in monitoring food security risks, as long as food security incidents occur, "government supervision is not in place" must be one of the reasons for the occurrence of food security incidents [36,37].

At the technical level, the food security standards in Mainland China are lagging behind, and the means of inspection and detection are relatively undeveloped. Therefore, it is difficult to guarantee the scientific rigor and authority of the test results [38]. Current food security supervision urgently needs to solve the technical problems such as the immature means of the evaluation and detection of food security risks [39].

5. Food Security Situation and Supervision Issues in Taiwan

5.1. Situation of Food Security in Taiwan

Taiwan attaches great importance to food security. It not only formulates relatively complete laws and regulations, but also has a complete process supervision and guarantee system from farm to dining table, as shown in Table 2. In 2011, Taiwan responded decisively and quickly to the plasticizer incident, which took only three months to subside. However, in 2013, a series of food security incidents

broke out, such as “organic rice mixing with low-price imported rice”, “poisonous starch”, “tainted oil”, and “poisonous milk”, which also shook the Taiwanese people’s confidence in their food security.

Table 2. Situation of food security in Taiwan.

Situation	Description
Responded decisively and quickly to the plasticizer incident.	Taiwan responded decisively and quickly to the plasticizer incident, which took only three months to subside in 2011.
A series of food security incidents broke out.	“Organic rice mixing low-price imported rice”, “poisonous starch”, “tainted oil”, and “poisonous milk” also shook Taiwanese people’s confidence in their food security in 2013.

5.2. Issues for Food Security Supervision in Taiwan

Compared with that of Mainland China, Taiwan’s food security supervision is mainly the responsibility of three government departments: Council of Agriculture, Executive Yuan, Ministry of Health and Welfare, Executive Yuan, and Bureau of Standards, Metrology, and Inspection, Ministry of Economic Affairs. Among them, the Council of Agriculture, Executive Yuan is mainly responsible for the supervision of the production of raw food materials, including raw material management for agricultural products, animal husbandry, and aquatic products, and assisting in the work of the Ministry of Health and Welfare, Executive Yuan. The Ministry of Health and Welfare, Executive Yuan and its subordinate health agencies are responsible for the supervision of food market circulation under the leadership of Executive Yuan. The Bureau of Standards, Metrology, and Inspection, Ministry of Economic Affairs (MOEA) is responsible for entry and exit food inspection and entrusted inspection. Only food inspected up to the standard can be circulated in the market [40]. Finally, food security and quality certification based on the Food Security and Health Management Law is the Good Manufacturing Practice (GMP) Smile Mark promoted by the Industrial Development Bureau, MOEA, and the Certified Agricultural Standards (CAS) Mark of the Council of Agriculture, Executive Yuan [41]. Taiwan’s food security supervision system is shown in Figure 2.

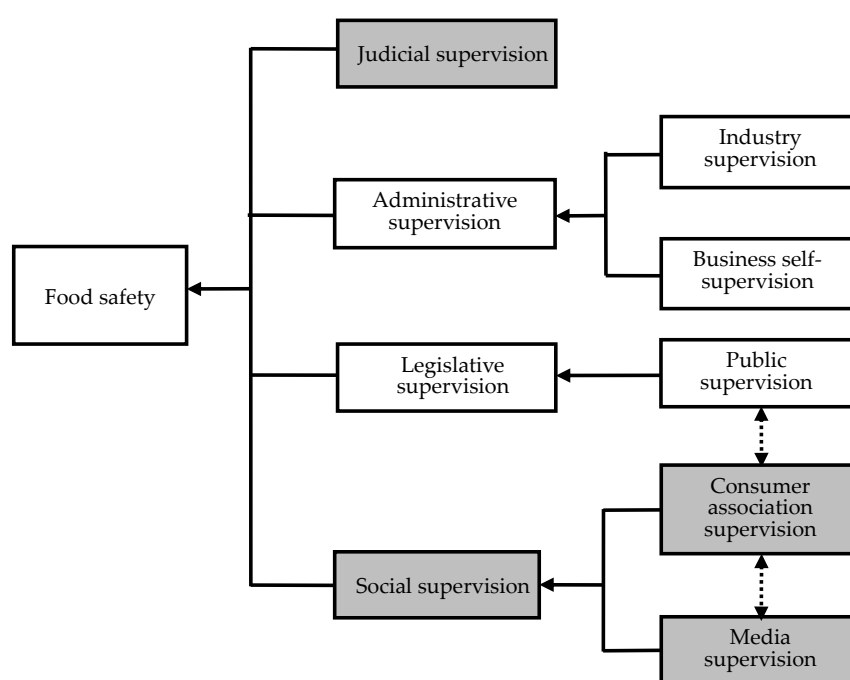


Figure 2. Taiwanese food security supervision departments and their duties.

6. Comparison of Food Security Status and Supervision Issues in Mainland China and Taiwan

From the food security supervision system in Mainland China and Taiwan, we can deduce the food security responses relative to the system, as shown in Table 3. The legal construction on food security issues in Mainland China has not only such problems as a lack of system, integrity, and deterrence in supervision laws and regulations, duplicated multidepartment enforcement, repeated enforcement, conflict of laws and regulations, a discrepancy of technical standards, and imperfect enforcement measures [42], but also supervision blind spots, such as imperfect legislation, content lags, discoordination between laws, the insufficient force of legal penalties, and even the weak legal awareness of the general public.

Table 3. Comparisons of food security issues in Mainland China and Taiwan.

Difference	Mainland China	Taiwan
Time point of food security accidents	The problem was found only when patients appeared. Food security accidents resulted in bad effects and serious consequences.	Poisonous and harmful food was reported by the public before it caused serious casualties.
Penalty intensity	The criminal law of the mainland is more stringent and the penalties heavier, but for the administrative penalty, enterprise food security information is not disclosed.	Taiwan's criminal law has not been amended and does not meet the requirements of the times. The level of penalty is too light, and there is collusion between the government and businesses.
Public response	It is relatively difficult for public opinion to create pressure.	The public response is intense and can generate strong public opinion pressure, but social network and social media rumors spread.
Scope of problem	Since the beginning of the 21st century, food security issues have been widespread, with numerous categories and a high frequency of outbreaks.	Food security incidents have occurred frequently in the last decade, but the severity is much lower than in Mainland China.
Social and economic conditions	Mainland China is currently a developing region, with economic development as the central task, so it is inevitable that some manufacturers with low social morality will only care about their interests, regardless of risk to life.	Taiwan is relatively developed with a relatively better quality of life and fewer food security incidents than Mainland China.
Social system	As it implements the socialist system with Chinese characteristics, it is vulnerable to the impact of the market economy, which leads to money-oriented food producers and processors.	With the implementation of the capitalist social system, utilitarianism is rampant, and companies are easily driven by profits.
Legislative branch	The legislative branch is the National People's Congress (NPC). The establishment of new laws and the revision of old laws take a long time, which hinders the thorough eradication of food security issues.	The legislative branch is the Legislative Yuan; the law-passing rate and number have greatly increased recently, but the law on food security still needs to be amended.
Inspection and testing measures	Food security testing systems are duplicated, the testing system is not perfect, and the testing standards are confusing (provincial, prefectural, and municipal standards are different).	CAS Good Food System, GMP Certification System, Processed Food Traceability System, Food Consumption Traffic Light System, Food Recycling System.
Attitudes towards informers	Informers do not receive corresponding personal security protection.	The government helps informers of illegal acts by keeping their identities secret, protecting their personal security through legislation, and through an incentive system to encourage consumers to report substandard food actively.

Compared with that of Mainland China, Taiwan's food security management is under the jurisdiction of the "Ministry of Health and Welfare, Executive Yuan" and the "Industrial Development Bureau, MOEA". Relevant laws and regulations are also incorporated in the food hygiene management law, food hygiene standards, and regulations to promote industrial upgrading. This model has its own unique features, but it also has many unsatisfactory defects. The more noticeable ones are: (1) Political mafias are often involved in food security incidents, and some public opinion representatives arbitrarily carry out "lobbying" in judicial cases. There is a suspicion of collusion between officials and businessmen, resulting in difficult judgment in major cases and obstacles for law enforcement and inspection, which makes food practitioners act with impunity. (2) Taiwan's criminal law has a weak effect in the punishment of food security felonies to achieve its proper purpose. (3) Taiwan's administrative punishment is too light, which may lead to disguised incentives for economic crime and social network and social media rumors.

Comprehensive research and analysis has shown that the fundamental reason for the frequent occurrence of food security accidents in China lies in the more humanistic supervision mode, under which most departmental managers often act on their own will, regardless of the regulations. To change this dependence on the bad paths of free-riding, weak government rules, abuse of power, and buck-passing, we must change the supervision mode of food security from the rule-of-man mode of supervision to supervision based on rules and regulations [43]. The inherent reason for the frequent occurrence of food security accidents lies in the unequal interests among all levels of the regulatory bodies and food enterprises caused by information asymmetry. Based on incentive compatibility theory, improving food security supervision in China should start with clarifying the responsibility of food security supervision at all levels and increasing the punishment of enterprises violating regulations [44]. In contrast, Taiwan should promote the basic law on food security, starting from reviewing and revising its existing cumbersome and decentralized food security regulations [45]. The primary task is to strengthen the promotion of third-party inspection, the "production resumé" system, food security knowledge advocacy, moral education, information provision, etc. [20].

7. Discussion and Suggestions

As food security is the focus of the whole society, it is of great importance. The legal system of supervision is the source of food security problems and thus is the most important of aspect of food security. Based on the comparative study of Mainland China and Taiwan, it was found that there were similarities and differences in the legal system of food security supervision between Mainland China and Taiwan. In view of this, the researchers put forward the following opinions and suggestions about the current legal system of food security supervision in Mainland China and Taiwan.

7.1. Suggestions for Food Security in Mainland China

In view of the current food security problems in Mainland China, this paper considers that it should establish a scientific, rational, advanced, and sound food security supervision system, learn from Taiwan's "product-management-oriented, stage-management-supplemented" food security supervision model, and change the current situation of unclear powers and responsibilities of various departments, different divisions of labor, and low efficiency of supervision [45–47].

(1) One suggestion is to deepen and refine relevant food security laws, such as clarifying the relevant unclear legal interpretation in the Food Security Law.

(2) In order to inform people, it could be a good idea to realize a specific international system for the rigorous evaluation of human health and environmental consequences [21]. This entails standardizing food security certification activities, improving the food recall system, establishing a food security liability insurance system, and formulating strict food security standards, which could be strictly implemented with reference to Taiwanese or European and American standards.

(3) Another suggestion is to foster diversified food security intermediary organizations with powerful supervision, improve their legal status, strengthen their supervision and restraint mechanisms,

improve their role of social supervision, and form a four-in-one supervision system involving government, enterprises, intermediaries, and individuals.

(4) Another suggestion is to formulate strict punishment measures, increase the intensity of punishment, and combine fines and corporal punishment, with multiple and more severe penalties for more serious offenses.

(5) Another suggestion is to establish an incentive system to encourage consumers to report illegal acts, bring out public enthusiasm to participate in food security, and give full play to their supervisory role.

(6) Civil education cultivated appropriately would enforce civil awareness, as well as public cognition of crisis prevention [20,48], providing moral education to food companies and raw material suppliers and popularizing and advocating food security knowledge among consumers to solve food security problems in a two-pronged way [21].

7.2. Suggestions for Food Security in Taiwan

In view of the abovementioned food security problems in Taiwan and the analysis results, this paper considers that the key point of response to these problems is to formulate the basic laws for the promotion of food security, review and revise Taiwan's existing cumbersome and decentralized food security regulations, and integrate them into a set of transparent, consistent, and comprehensive food security regulations [45,49,50].

(1) Food security legislation must cover every stage of food production and should be extended to the scope of animal feed. This is because only by ensuring feed security can it guarantee the security of livestock and poultry products, and also indirectly guarantee the security of consumers. Regulations should clearly specify that during the process of food production and marketing, suppliers of each production and marketing supply chain should bear the responsibility for the security of the food or raw materials they provide. Illegal food suppliers should be severely penalized and exposed to severe criminal liability.

(2) A special administrative body should be set up to coordinate all food security businesses so as to take effective food security management measures to safeguard public health and restore consumers' confidence in the security of food sold in Taiwan; for example, further integrating food security and hygiene regulatory bodies to centralize the power of food security and hygiene supervision, establishing the Food and Drug Administration, and reclaiming the business of imported food inspection from the Label Inspection Authority.

(3) Introduce third-party inspection: Inspection fees of all of the food on the shelves can be paid by consumers themselves to transfer the inspection fee to consumers by means of increasing the prices of commodities by the inspection cost, so that consumers can buy assurance and producers cannot counterfeit it.

(4) Improve and strictly control the food "production resumé" policy: The so-called "production resumé" system refers to the establishment of a "traceability system" to track the information of raw material ingredients, production, processing, circulation, sale, date, and other stages of food and to mark related information on the products. After the establishment of this system, on the one hand, consumers can understand the relevant ingredients and service life of the food; on the other hand, once the food has problems, we can immediately identify the crux of the problem from relevant information and deal with it properly, which will play an important role in ensuring food security in Taiwan.

(5) The government should strengthen food knowledge regarding security education advocacy and moral education, help to teach food producers at basic levels to follow good farming practices, help food processors to abide by good operation practices and instructions, and help food cooks to follow good hygienic practices and habits [20]. Food security knowledge, education, and training should be provided to producers at each stage of the food supply chain in order to prevent the generation of harmful residues during the food production process and avoid harm to consumers' health and the environment [21,22].

7.3. Implications

In recent years, food problems have been occurring in Mainland China and Taiwan. In order to ensure food security and considering the fact that food security is directly related to people's lives, the public's rights, and the credibility of the government, the relevant departments in Mainland China and Taiwan have realized the importance of responding to the food security crisis and signed the preliminary "Agreement on Food Security in Mainland China and Taiwan" to safeguard the rights and interests of consumers in Mainland China and Taiwan [25]. Furthermore, in the face of increasingly severe food security crises, governments shall strengthen cooperation in constructing legal systems on food security supervision and inspection, exchange experience, and cooperate in inspection (for example, when dealing with the international food security problem of imported poisonous milk powder, Mainland China can refer to strict inspection practices, such as "Food GMP Certification" and the high import standard requirements and policy means implemented in Taiwan over the years, starting from the source management of food security, so as to prevent the entry of problematic foreign food). Finally, because, in general, the more unfamiliar things are, the more they are perceived as risky, and avoidance and fear are the consequences [21,22], to avoid the occurrence of hygienic hazards of food, governments should establish adequate communication, be open and transparent in policy formulation, provide consumers with more information about how to fill the gap in food security knowledge, and share food security information to avoid rumors of food insecurity circulating in popular science [20,24,25]. It is expected that the results and suggestions of this study will be helpful in crisis response, as well as to the supervision system in Mainland China and Taiwan to guard food security. Although the comparative analysis was specific to the two regions, its characteristics are typical of food security globally, especially in Asia.

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