Food Safety Management in China: What China can Learn from Canada?

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Abstract
Food safety has become an issue of public policy because it has much to do with people’s vital interests. The growing unrest over food safety in China reached a climax in early 2007. Years after the melamine-in-milk scandal that made 300,000 children sick, and after China passed its first-ever food safety law in response in 2009, the country is still struggling to keep its food supply healthy. It is well known that Canada’s food safety system is ranked the best in the world. Managing food safety risks in Canada is the shared responsibility of governments, food industries (including producers, processors, retailers, and food service establishments), and consumers. This paper addresses research that aims to make a comparative study of food safety management in China and Canada, from the perspective of the functions and responsibilities of each administrative department and the rights, power and liabilities among different stakeholders. The outcome of the study is to compare and contrast the Canadian system with China and to propose a complete system of food safety management in China.

Key words: food safety, stakeholder theory, China, Canada

INTRODUCTION
Food safety is a scientific discipline describing handling, preparation, and storage of food in ways that prevent food-borne illness. This includes a number of routines that should be followed to avoid potentially severe health hazards. Food is considered safe when, at the point of consumption, biological, chemical, or physical hazards have been eliminated or reduced to levels low enough that they will not cause illness or death.

Food safety—the assurance that food will not cause harm to the consumer when it is prepared and consumed according to its intended use, has become an issue of public policy because it has much to do with people’s vital interests. Everyone in every country, no matter in developed or developing countries, including governments, the food industry, and consumers—has an abiding interest in safe food. Food safety is also a global issue that affects the health of populations in both industrialized and developing countries.

Unfortunately, it is almost impossible for consumers to determine the safety of their food given that most biological and chemical hazards, and some allergens, are imperceptible to human sense.

Food that looks, smells, and even tastes fine may contain pathogens, chemicals, or allergens that can cause illness. As a result, effective food safety systems require sophisticated approaches to hazard identification and risk management.

The growing unrest over food safety in China reached a climax in early 2007. Years after the melamine-in-milk scandal that made 300,000 children sick, and after China passed its first-
ever food safety law in response in 2009, the country is still struggling to keep its food supply healthy. As urban consumers’ incomes increase, the demand for quality food goods, safer production, and processed foods also increases, and urban residents and supermarkets attract more national and media attention to food problems.

It is well known that Canada’s food safety system is ranked the best in the world. Managing food safety risks in Canada is the shared responsibility of governments, food industries (including producers, processors, retailers, and food service establishments), and consumers.

This purpose of this paper addresses research that aims to make a comparative study of food safety management in China and Canada, to propose a complete system of food safety management in China.

**CHALLENGES FOR FOOD SAFETY IN CHINA**

In recent years, there have been increasing reports in the domestic and international media on food safety risks in China. A public survey shows that Chinese people are very concerned about what they eat with increasing awareness of food problems such as clenbuterol in meat (94%), melamine in baby milk formulas (92%), swill-cooked ‘gutter’ oil (85%) and tainted steamed buns (80%).

Generally speaking, the main food safety issues in China are: foodborne diseases, pesticide residues, animal drugs residues, heavy metal, natural toxins, GM foods, food chemical contamination from organic pollutants and the illegal use of additives in food.

Chinese people have been shocked by many food safety scandals in the past 10 years. Years after the melamine-in-milk scandal that made 300,000 children sick, and after China passed its first-ever food safety law (2009) in response, the country is still struggling to keep its food supply healthy. In China, fewer than 20,000 major food poisoning incidents a year were officially reported in the past 13 years. In 2012, for example, 6685 incidents were reported, with most attributable to microbial agents (56·1%), followed by toxic animals or plants (14·8%), and chemical contamination (5·9%).

Food safety issues have undermined customer confidence in China in recent years, and even though conditions have improved, winning back customer trust is a challenge. Public satisfaction with and confidence in the country’s food safety has dropped compared with 2014.

**FOOD SAFETY MANAGEMENT IN CHINA: A STAKEHOLDERS ANALYSIS**

A stakeholder is any entity with a declared or conceivable interest or stake in a policy concern. Stakeholder theory is a theory of organizational management and business ethics that addresses morals and values in managing an organization. It was originally detailed by Freeman in the book Strategic Management: A Stakeholder Approach, and identifies and models the groups which are stakeholders of a corporation, and both describes and recommends methods by which management can give due regard to the interests of those groups. In short, it attempts play to address the “Principle of Who or What Really Counts”. Stakeholder Analysis (SA) is the process of identifying those affected by a project or event. In this paper, stakeholder analysis is used to identify the related parties in the process of food safety management.
As per SA, the related parties which have impact on food safety can be classified into 2 categories, ie. direct stakeholders and indirect stakeholders. Direct stakeholders includes producers, consumers, government, while indirect stakeholders includes industrial organizations, social organization and news medium.

**Government**
China is the only country in the world which adopts 2 sets of national standards for food. Since the food regulations are complex and ambiguous, the monitoring system can be unresponsive. There are around ten national government departments that share the responsibility to ensure food safety, there are numerous provincial and local agencies that monitor local food production and sales. Too many departments and agencies have jurisdiction over food safety, creating unnecessary bureaucratic overlap and confusion.

For instance, when talking about the hotpot condiment scandal happened in Nanjing, the staff of quality supervision bureau admitted frankly that, since there were too many types of additives in the hotpot condiment, it was very hard for them to be clear about the safety of the food.

It is obvious that the current legislation is unable to protect consumers from the consequences of unscrupulous food production.

**Food Producers**
Traditionally, China’s agricultural system is composed mostly of small land-holding farmers and subsistence agriculture. China, however, has less arable land than other nations and farmers intensively use fertilizer and pesticides to maintain high food production.

It is estimated that there are more than 400,000 food producers in China, among which only 120,000 producers have obtained production permits, which accounts for only 30%; 160,000 producers have got relevant documents but have not been examined and approved by administrative departments, which accounts for 40%; about 30% of the producers, ie.120,000 producers have got no documents which can show their legality.

On the other hand, a certain amount of enterprises paid more attention to economic profits, neglecting food safety quality. In order to maximum profit, some companies produced foods which had dangerous impact on human beings.

**Fig.1 Food Safety of Related Stakeholders Analysis**

**URL**: http://dx.doi.org/10.14738/assrj.36.2011.
Take the recycled cooking oil incident as an example. It is calculated that, the cost for 1 ton of recycled cooking oil is about RMB300, after deduction of all the cost, the total amount of profit can reach RMB1.5-2.0 billion.

Generally speaking, the local authorities largely control food regulation enforcement unless the central government steps in. The inspection instruments were outdated and inspection methods were backward. Sometimes the inspection was made only by a pair of hands or eyes. Obviously, poor management and weak punishment have worsened the situation.

**Consumers**

Affected by many years of food shortage, Chinese people had a special feeling for food, sometimes, even if the food had been deteriorated or moldy, people were still reluctant to throw it away. On the other hand, buyers have disadvantage in information acquisition in terms of rights to know and options (compared with producers, sellers, etc.) People have very weak awareness of rights, and the cost for right safeguarding can be very high.

**News media**

In China, media reporting has important influence on food safety development, supervising food safety incidents and promoting people’s food safety knowledge. Mass media plays the role like a microscope in reporting food safety problems, discovering problems, analyzing the causes of problems and guiding the public opinions.

**Food Safety Management in Canada**

Canada’s food safety system is one of the best the world over; but it is also complex and involves all levels of government, the food producing and processing industry, retailers, and consumers too. Each player has an important and active role if the food safety system is to work effectively.

Generally speaking, managing food safety in Canada is the shared responsibility of governments, food industries (including producers, processors, retailers, and food service establishments), and consumers.

The Government of Canada has made significant investments to improve the food safety system. Canada’s public food safety system is strong in many respects; much of its strength is the result of concerted government action. It is declared that “Food safety is a priority for this Government” (by Agriculture Minister Gerry Ritz.)

The Canadian government realized that the Canadian food safety management would face challenges under the 2 trends of globalization and innovation. Therefore, at strategic level, governments have reached a consensus with each other in terms of food safety management, ie. socialized and integrated management based on science.

Canada, as a federal nation, adopts federal, provincial and municipal level administrative system. In terms of food safety management, hierarchical management, mutual cooperation, broad participation pattern is used. Federal, provincial and municipal authorities have the responsibility of the management of food safety, taking the responsibility of implementation of regulations and standards, and supervising the implementation of relevant laws, regulations and standards.
Provincial government food safety agencies, within their jurisdiction, provide the inspection of products by small food enterprises which are sold locally. Municipal authorities are responsible for providing public health standards to restaurants and supervising their business.

The governments insisted on the maximization of public interest as the first principle of decision-making, attaching great importance to the commitment to public service. The cooperation with NGOs in the process of public health and food safety management is encouraged. Public is regarded as an important force in the entire food safety management. Governments positioned as "regulators, partners of legitimate business and NGOs, leaders for food safety development trend."

Government has done continuous work to reduce food safety risks, enhance surveillance and early detection of food-borne pathogens and illnesses, and improve emergency response.

Food safety depends on what industry does on a day-to-day basis to minimize risks. Market forces provide strong incentives for industry to take great care in preventing food safety lapses as these can result in loss of brand reputation, costly recalls, and lower sales. Even when governments and industry perform their food safety functions well, consumers can create new risks by failing to practice good food safety in food storage, handling, preparation, and cooking behaviors that would minimize risks.

This happens in Canada also. Consumers generally underestimate the likelihood of food safety incidents occurring as a result of household practices and therefore frequently fail to adopt appropriate risk management strategies.

Improving consumers’ risk perceptions—and, in turn, their food safety behavior—will be challenging, but essential to reduce food safety risks in Canada.

**REFLECTION**

Canada’s food safety system does a good job generally of protecting consumers from food safety hazards by shared responsibility, ie. everyone has a role to play in keeping food safe, including producers, industry, government and consumers.

Governments work together when there's a national or international outbreak of food-borne illness and in doing so rely on some key tools to help them respond to the outbreak effectively.

Governments and food industry partners are working together to maintain a safe food supply.

Improving Food Safety in Canada: Toward a More Risk-Responsive System.

Although Canada has set lot of departments for food safety management, and the classification management system is used, all departments and all levels of management organizations have clear division of responsibilities, performing their own duties and working smoothly. In China, on the other hand, the coordination mechanism does not function well, which can not guarantee the efficiency of food safety management at national level. We can use the experience of CFIA, which ensures that the processing industry meets all federal food safety regulations and laws through inspections. By reference to the management philosophy of CFIA, each department strengthens its own responsibility, to ensuring the food safety within the scope of its duties.
At the same time, we should establish the scientific coordination mechanism with other departments to fulfill the food safety supervision.

Scientific research in food safety management is very strong in Canada, which has good timeliness and availability. In China, although there are many top universities and research organizations that have done a lot of researches in the field, the research findings can not be used in the reality. It is suggested that when reviewing scientific projects, the timeliness and practicability should be put into consideration.

It is obvious that, in the absence of effective regulations and moral constraints, private profit too often trumps public good. Counterfeiters are also victims of other unsafe food, try to avoid “a society where everybody intoxicates everybody.” A functioning society needs basic moral codes in order to restrain dangerous behaviors. It is of vital importance to establish a code of business ethics, in addition to improvement of legislations.

Consumer organizations should play a role, because consumer groups are most concerned about food safety, they can supervise food producers with efficiency. In addition, it is necessary to enhance the consumers’ awareness of food safety.

**Future of food safety in China: responsibility, accountability, and trackability**

Although food safety in China involves a range of complicated, multidimensional issues, several high priority items were identified: establishment of a tracking system so that weak links in protection of food safety can be readily identified; building of a regulatory system with a clear chain of command and division of labor among different regulatory bodies; adoption of common safety standards for all regulatory bodies; and advancement of technologies to enable rapid and accurate measurement of food safety indicators.

The Chinese Government has committed to implementing effective and timely measures to address food safety problems, through improvements in food safety monitoring and surveillance, and by strengthening legislative mandates.

Media plays a very important role in food safety management. Media, in the food safety management process, as an important social force between the government and the public and the carrier to provide the basic facts, which profoundly affects the behavior of the government and the public. In crisis resolving, problem solving and social trauma comforting, the other forces cannot achieve the stated objectives as well as media. When a food safety emergency comes, the community groups tend to have varying degrees of panic and anxiety. At this time, people are more concerned about media than usual; they want to get more information about the status quo through the media. On the other hand, the crisis could lead to public dissatisfaction, which need to ease and guide through the media. Organizations and individuals need to get a reasonable explanation through the media. In this process, media achieves the purpose of detecting the crisis and providing information for public. Facing food crisis which affects the national economy, the media could not shirk its warning responsibility.

The 2009 Food Safety Law marked a historic turning point in food safety policy in China, with adoption of key international standards and a range of new and innovative policy mechanisms unique to China. The aforementioned China Food and Drug Administration is an essential first step to providing a centrally coordinated authority to regulate food safety. However, assurance of food safety and rebuilding of public trust will need food industries in China to recognize that
they are ultimately responsible, and will be held accountable, for food safety problems, even though the government is responsible for legislation and enforcement of regulations. Technological advances such as rapid screening methods might help China’s vast food industries to identify and manage risks at an early stage. But perhaps even more importantly, social responsibility should be adopted as an overarching principle governing the actions of food industries, placing food safety ahead of maximization of profits. To raise accountability, a tracking system should be implemented to locate the origin of problems, and the strengthening of surveillance systems and improvement in enforcement of food safety laws will be the key to success. Increasing awareness of the public, and improving transparency via media reporting, should be encouraged to increase the engagement of the public in discussions about, and implementation of, food safety measures. In view of the scale, diversity, and complexity of China’s food production, processing, and distribution system, no quick fixes exist to resolve the country’s food supply and safety challenges. Through the combination of innovative legislative and regulatory actions, public engagement, and renewed commitments by industries to uphold principles of environmental sustainability and consumer protection, we cautiously anticipate gradual improvements in coming years.

A Good News is that the Amendment to the 2009 Food Safety Law with the heaviest penalties yet for offenders will go into effect on Oct 1.2015. With 154 articles, compared with 104 in the original law, the revamped Food Safety Law adds new articles and provisions on baby formula and online shopping. The revised law gives heavier punishment to offenders, increasing the cost for violating the legislation.

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