

Chinese Consumers' Trust in Food Safety Surveillance Sampling

Subjects: **Food Science & Technology**

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Food supervision sampling has played an important role in improving food safety. However, consumer acceptance of the results of food safety supervision have not kept pace. Communicating actual food safety risks to consumers and improving the public trust in food safety supervision sampling inspection has become an important issue.

supervision sampling inspection

competence trust

care trust

1. Introduction

With the development of the social economy, the standard of living in China has been greatly improved, but food safety problems still frequently appear ^[1]. People are, however, paying more attention to food safety in China ^[2], as these food safety problems not only cause physical harm to consumers but also cause psychological panic. The degree of concern about food safety has gradually become an important key to measuring people's quality of life in China ^[3]. To this end, China has developed and introduced a series of food standards to ensure consumer safety ^[4] ^[5] ^[6]. By 2020, a food safety supervision system based on risk analysis and supply chain management has been established, and major regional and systemic food safety risks have been controlled. From 2016 to 2020, the evaluation of food safety supervision sampling inspection showed that the overall pass rate was higher than 96%, particularly, for meat products, processed grain products, edible oils/grease products, dairy products, and egg products, the overall situation of food safety in China is generally improving. In recent years, the State Administration of Market Supervision and Administration has undertaken a series of risk communication measures to improve food safety. However, consumer's perception of food safety risk based on subjective psychological factors often deviates from the actual risk level. Public confidence in food safety has not improved significantly. Translating food safety risks to consumers and increasing public trust in the national food inspection can be challenging. Finding a way to improve the public trust toward food safety supervision sampling inspection has become a core issue in food safety risk communication^[7].

2. Consumers' Trust in Food Safety Surveillance Sampling

Institutional trust is comprised of competence trust and care trust. The two-dimensional model of trust is currently widely used in the field of food safety ^[8]. Competence trust refers to trust based on the performance of competence in terms of knowledge, skills, and behavior. Care trust refers to trust based on motivation and relationships and

reflects the public's relationship with the person they trust and their assumptions about the intentions and motivations of the person they trust.

Trust plays a crucial role in risk communication and management, and public trust is also a topic that cannot be ignored in the supervision sampling inspection of food products. Some scholars have proposed that factors affecting consumers' confidence in food safety include their trust in participants in the food chain [\[9\]\[10\]\[11\]\[12\]\[13\]\[14\]](#) and regulatory authorities [\[15\]\[16\]](#), memories of food safety events, media reports [\[16\]\[17\]\[18\]\[19\]](#), perceptions of the safety of different types of products [\[11\]\[20\]\[21\]](#), and consumers' demographic characteristics [\[10\]\[20\]\[21\]\[22\]](#) and values [\[8\]](#).

Official government food safety supervision departments are the main bodies that carry out food sampling inspections. Owing to the complexity of the food production system, consumers are not able to accurately judge the safety of food during the food consumption process, leading them to rely on other participants in the food chain to provide them with safe food, as well as on the government and society's regulatory systems [\[23\]](#). When consumers believe that the results of food sampling inspections can be trusted and that when food safety problems occur, the authorities will take appropriate action to prevent them from endangering public health, such as issuance of recalls [\[24\]](#), these beliefs have the potential to directly influence the level of consumer optimism about food safety. When carrying out food safety surveillance and sampling inspections, steps such as the development of sampling plans, the development of food safety standards, and the allocation and implementation of work can all reflect the actual competence of the authorities concerned, which translates into competence trust in the trust model [\[25\]\[26\]\[27\]\[28\]](#). Therefore, the quality of food safety supervision sampling inspection work may affect the public's attitude toward its results.

The safety and reliability of food are important reflections of the government's ability to monitor and manage risk in the market. In the relationship of government trust, the subject is the citizen, and the object is the government. Hetherington [\[29\]](#) incorporated government competence into the connotation of government trust, and the level of public trust in the government to have the knowledge and skills required for its management is a performance-based indicator of trust in the government. Levi [\[30\]](#) posited that the goodwill of the government is an important component of government trust, representing the extent to which the government cares for people's livelihoods and interests, as measured by the motivations and goals of government management behavior. To a large extent, consumers believe that the government is responsible for ensuring food safety [\[31\]](#) and should take responsibility for disclosing food safety information and communicating risk. National food safety monitoring and inspection departments should regularly publish relevant information and undertake risk monitoring. Consumers' trust in the work of food safety supervision sampling inspection departments directly affects their attitude toward the results released to the public by these authorities. Yang and Holzer [\[32\]](#) suggested that the public's approval of government work reflects the public's trust in government. It is generally believed that the higher the public's trust in government, the higher the level of satisfaction with the government's work, and the more credible the information released to the government.

Institutional trust has a significant positive effect on the attitude toward the public announcement of the qualified rate of safety supervision sampling inspection of commonly consumed foods. The results also indicate that care trust has greater weight on changing the attitude towards supervision sampling inspection than competence trust. Supervision sampling inspection should focus on emotion and rationality when communicating with the public, prioritizing emotional responses, demonstrating similar values and similar core concerns, and responding positively to audience concerns [33]. In the meantime, supervision sampling inspection departments should convey the attitude that they are fully considering the public's interest, enhancing care trust, reducing confrontational interpretations, and thus accumulating core evidence to convince people with reason.

Adequate national supervision sampling work may improve consumer trust in food risk screening, as well as promoting public approval of the qualified rate of supervision and sampling inspection. Here are some measures proposed for food safety regulators. In the production of food safety supervision sampling inspection videos, the General Administration can consider the results of perception surveys and prioritize the presentation of views and beliefs shared by the public, such as demonstrating the ability to detect potential food safety hazards and the openness and transparency of the supervision sampling inspection process to promote public empathy and enhance the acceptance and trust of the message. When formulating food sampling and inspection plans, the difference between "sampling and inspection priorities" and "public concerns" can be narrowed appropriately by incorporating commonly consumed food categories that are of high public concern in questionnaires and public opinion surveys to actively respond to audience concerns and enhance public trust in the government's sampling inspection. It is recommended that the disclosure of information on food items of key concern to the public should be enhanced to meet the information needs of the public in depth. The focus on food information disclosure should be considered a top priority to meet the information needs of the public. When the sampling test results are released, expert interpretations can be combined to clarify professional information that the public should know and want to know but do not know in an easy-to-understand way [34].

Food safety supervision is a systematic project, which transforms the supervision of government departments into a cooperative supervision mechanism dominated by government departments and involving the participation of relevant social forces. To improve the effectiveness of food safety supervision, relevant departments should focus more on consumer concerns when formulating policies. Policymakers should realize that the entire food system has to work toward fulfilling consumers' needs [35]. The principle of taking consumers as the center is reflected in the sampling inspection, re-inspection, and processing activities organized by the food market supervision and administration department. China's food safety supervision system of laws and regulations should also be further improved, with strict implementation of food safety laws and regulations. We should strengthen oversight of food safety across the board, establishing the strictest standards, enforcing stringent regulation, imposing the severest penalties, and insisting on the most serious accountability. These strategies could significantly increase public trust in the supervision sampling inspection of commonly consumed foods.

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