

Food Safety Culture

Behaviour-based approach to food safety management

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Abstract

A series of major food-related scandals over the past few years has resulted in a decline in public trust in food manufacturers. In response to the increasing food safety problems and to rebuild the consumer confidence in the food supply chain, the government has made a big move on improving and establishing food safety policy. While the number of food safety incidents does not seem to be reduced and it is not only Taiwan facing this challenge but the global. Food safety experts have been studying and deeply diving into this issue and figured that just making the regulations stricter and more rigorous cannot make an effective impact on food safety. It requires a mindset and behaviour change toward food safety which that influences every individual working in the food industry to ensure the safety of the food they handle. This is the new page of food safety management system, moving from hard science to soft science. Behavioural science and social science applying into an organization's culture will be a powerful influence which can better improve food safety worldwide.

Introduction

A series of major food-related scandals over the past few years has resulted in a decline in public trust in food manufacturers. Therefore, any food related news can panic the public even though it has no food safety concern. In response to the increasing food safety problems and to rebuild the consumer confidence in the food chain, the government has made a big move on improving and establishing food safety policy. Even though the government try to enforce the food supply chain manage the food safety from farm to fork, the food safety incidents are still out of control. In fact that Taiwan is not the only facing this challenge but the global. Food industry across the world should be come ally to make a change.

Food safety professionals have been studying and deeply diving into this issue and figured that just making the regulations stricter and more rigorous cannot make an effective impact on food safety. It requires a mindset and behaviour change toward food safety which that influences every individual work in the food industry to ensure the safety of the food they handle. This discovery is a turning point of food safety management, since that, food safety management moves from testing, inspection and regulations which is called “hard science” to behavioural science and social science which are considered as “soft science”. As a result of that, a culture of food safety has caught international food safety experts’ attention and became a highly discussed subject when it comes to food safety matters worldwide. Both Codex Alimentarius Commission and Global Food Safety Initiative are working on improving the safety of the world’s food supply chain for human consumption and raising the awareness and the importance of food safety. This study discusses the creation of food safety culture, from the individual to the large multinational corporation, strengths the food safety management system.

Food Safety Management

Food is an essentially important part for everyone. It gives the energy and nutrients that the human body needed. However, due to the improvement of technology, food production has been changed in many ways through it supply chain, agricultural production, food processing, distribution and even the retail and foodservice. All of these might affect an individual's health without notice. Food safety, therefore, has

become a serious global public health concern.

Due to the globalization of the food industry, the food system has become more complex than ever before. People do not cook from home all the time, but prefer dining out or purchasing Ready-prepared food or meals which is convenient and fits that modern lifestyle. The food we consume is grown, processed, prepared, sold and served by people who work in the food supply chain [3]. Therefore, it is necessary to ensure that the process of producing food is safe. The consumers rely on every individual in the food supply chain to make the right decision and do the right things to keep food safety [3]. In order to ensure the safety of food production, the food safety management system has been applied to the food industry. The practices designed to ensure the safety of our food are as important as ever before.

The traditional strategies of maintaining food safety are providing training courses, conducting inspections/audits and doing microbiology test as well as enhancing policy and regulations. However, there is a growing body of research shows that the behavioural component is the cause of foodborne illness. World Health Organization estimates that almost 1 in 10 people is sickened by eating food processed or prepared by others [1]. In the USA, 97% of outbreaks are traced to non-manufacturing food business involved food handlers, errors and meal practice [2]. Which suggests that the food hazards actually come from people, ingredients and environment. The former Walmart Vice President of Food Safety, Frank Yiannas says that “You do not have a strong food safety culture, you can have the best law and policy in the world, but if people are not able to do them, then it's meaningless.” He also states in his book that to succeed in food safety often requires more than a thorough understanding of food science [4]. It requires having a behaviour-based food safety management system or a culture of food safety in place, which is an integration of food sciences with behavioural science and social science [4]. The Global Food Safety Initiative (GFSI) also believes that “to be successful and sustainable, food safety must go beyond formal regulations to live within the culture of a company.” [3] The food safety management has been changed from enforcing the implementation of regulation and policy to influencing the behaviour and thinking of individuals.

Why Food Safety Culture

Culture might seem to be abstract to many, and everyone can have a different answer to define it. The Cambridge English Dictionary defines culture as “The way of life of particular people, especially as shown in their ordinary behaviour and habits, their religious beliefs.” Definition of Culture at Dictionary.com is that “The sum of attitudes, customs, and beliefs that distinguishes one group of people from another.” Put it into the simple words will be “the way we do things here” which is the most common use and understandable meaning to describe the culture.

From the psychological point of view, humans are easy to be influenced by things they believe, such as beliefs, norms, values and mindsets. Moreover, a group of people are influenced by each other's behaviour, thinking and habits. Culture is a shared value and belief in a group, not an individual. In a company or a workplace, employees are often affected by the group that has been identified with. Culture is the actions and beliefs characteristic of a group. In simple terms, it is what we think, feel and do as a group based on our values. Therefore, this is very important that a company to establish a vision and this will be the organization's culture. The culture of an organization is deemed to be "the foundational issues that go deeper than the immediate or apparent reason" [4].

To influence the behaviour of million people that work in the food industry requires the understanding of organizational culture and the principle about human behaviour. Therefore, there is no doubt that an organization's culture can have a big impact on the employees who work in that organization, and their attitude toward food safety. A food safety culture built on a solid foundation within an organization, the workers are more likely to discuss food safety concerns and will care more about the food that they are handling. GFSI defines food safety culture as "shared values, beliefs and norms that affect mindset and behaviour toward food safety in, across and throughout an organisation." [3] Food safety culture is "the sum of management commitment, employee attitude and resources required to produce a consistently safe and hygiene food product" and can also be said "Set of shared attitudes, values, and beliefs around food safety". When employees, managers, and leaders feel personally committed to food safety, they will do the right thing even when nobody

is watching, and even when it is not the cheapest or fastest approach.

The culture is led by management and it is driven down throughout the entire organization. Therefore it is leaders' job to create, strengthen and sustain the food safety culture within an organization. Food safety culture relies on a strong leadership team who has a solid vision of food safety. It is a top-down approach, not bottom-up. Food safety culture is also the reflection of how important food safety is to the leader. If there is a leader who does not take food safety as a serious issue, how can you expect his/her staff will consider food safety and hygiene when producing food. Food safety should be applied to a company's culture as its values. Values are different from priorities, priorities can change under different situations, however, the values will always stay the same. Why the leaders play such an essential role when it comes to establishing a culture of food safety? The reason is that "leadership is about influencing people to follow".[4]

However it does not mean that food industry do not food safety management system in place, the food safety management is still necessary, but it is more focusing on the mentation and the processing of the management. While it can be seen that with the leader commit to the food safety who has an influential impact on the workers, the organization will have a safer performance on food safety. In order to create a food safety culture in your company, the system-based approach to food safety is needed.

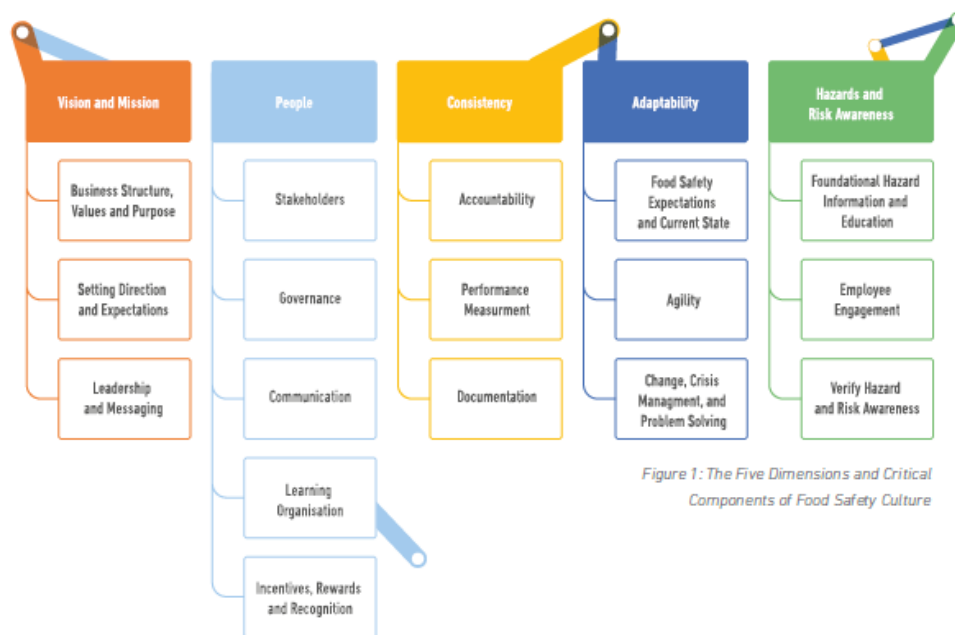
A System-Based Approach to Food Safety

System-based approach to food safety is not only focused on the process but is more about people focused. What Frank states in his book is that "It is a total systems approach based on the scientific knowledge of organisational culture, food Science and social cognitive science." [4] He calls this system-based approach as a "behaviour-based food safety management system". [4] Therefore, Food safety culture can be said is a combination of organisational culture, food Science and social cognitive science. There are the definitions of the three components:

- Organizational culture is considered as the shared values, beliefs and norms that influence how employees think, feel and behave towards each other and towards situations facing the organization.

- Food science enables the definition and quantification of food safety risks associated with a given product and process.
- Social cognitive science can define as to measure and predict human behaviours.

Here is talking about system-based approach, to have this, the system thinking should be clarified. It is often that when addressing a food safety issue the specific risk management strategies will be implemented to tickle the individual component, while when talking about system thinking, the whole or complete system should be taken into the consideration. Which also states in Frank’s Book can better explain the concept of the systems thinking, “A system calls for a more complex understanding of relatedness, such as feedback relationships, to explain the role of the various components in the system as a whole.” [4] In order to improve a behaviour-based system continuously, the non-physical components should be taken into account. There are five dimensions that have been pointed out in a position paper of "A Culture of Food Safety "published by GFSI which can help to build a behaviour-based system within food safety and organizational culture, as shown in Figure 1 [3].



The behaviour-based food safety management system continuous improvement model is shown in Figure 2. This model will help to create or strengthen the culture of food safety within an organization.



Figure 2. Continuous Improvement Model

Concluding Summary

Frank says that food safety equals to human's behaviour. Studies show that most of the foodborne illness caused by human behavioural factors. Food safety laws and regulations have done much to protect consumers and make food safer. However, the way to make food safer is to influence food handlers' mindset, their behaviour and beliefs, the food safety issues will be more likely to reduce. The behaviour change is complex, it requires the leadership to commit to food safety and make it as a value of an organization. It is a top-down approach, and should be applied through all levels in an organization, from the leader to the front-line workers. While establishing a culture of food safety, it is very important to consider all the related aspects, which means should have systems thinking and using non-physical components, and continuous improvement. Food safety culture is not newly introduced to food safety management, however, in these days, more and more food safety experts consider the culture will be the deepest way to improve food safety. Although, food safety culture is still very abstract, there are still rooms for more researching and example sharing. Food safety is a shared responsibility, and when everyone has a strong food safety mindset, no one will ever worry about food safety issues.

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