

Role of standardisation in food safety and certification important

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Food safety is a scientific discipline describing handling, preparation and storage of food in ways that prevent food-borne illness. The occurrence of two or more cases of a similar illnesses resulting from the ingestion of a common food is known as a food-borne disease outbreak. In present scenario, a product's packaging speaks about the safety standards and certifications which in-turn determines the product quality.

Role of Concepts in Certification and Food Safety

A number of important concepts play a definite role in providing better food safety and certification:

Standardisation: The objective of standardisation is to set up a standard for a procedure or a product specification, to which every stakeholder adheres, in order to ease logistical procedures, facilitate trade and possibly improve quality if the requirements of the standard involve an improvement compared to common practices.

Standards: Two types of standards exist: product standards (specifications and criteria for the characteristics of products) and process standards (criteria for the way the products are made). Food safety standards are essentially process standards whose aim is to improve the safety of the end products. Process standards can be further divided into two categories - Performance standards establish verifiable requirements on processes, for instance a ban on pesticide use in farm production. In the food safety field, Good Agricultural Practices and Good Hygiene Practices represent such performance standards. Management system standards establish criteria for management procedures such as documentation or monitoring procedures. In the context of food safety, such standards may demand HACCP planning. A standard can be the subject of a certification programme (like the ISO standards for instance) or not (like the ones of the Codex Alimentarius).

Standard-setting Body: Standards can be set up by governmental institutions, by the private sector (buyers or suppliers), or even by certification bodies that want to set their own standards, perhaps based on an existing standard.

Certification: It is a procedure by which a third-party gives written assurance that a product or a process is in conformity with the corresponding standard. Thus, the certificate demonstrates to the buyer that the supplier complies with certain standards, which might be more convincing than if the supplier itself provided the assurance.

Certification Programme: A certification programme is the system of rules, procedures and management for carrying out certification, including the standard against which it is being certified.

Certification Bodies: The certification programme is carried out by a certification body, which does the inspection and delivers the certificate. One certification body may execute several different certification programmes. The certification body must always be a third-party, without any direct interest in the economic relationship between the supplier and buyer. However, it is not always easy to guarantee independence and the absence of conflicts of interest of certification bodies, in so far as certification costs are borne by suppliers.

Accreditation: A certification body can carry out certification programmes only if it is evaluated and accredited by an authoritative body (a governmental or para-governmental institute), which ensures that the certification body has the capacity for carrying out certification and inspection in compliance with guidelines set by ISO, the European Union or some other entity. In addition, the certification body may require a licence from the standard-setting body, especially if it is a private standard-setting body, for the scope of its particular standard.

Labels: A certification label is a label or symbol put on the product indicating that the product or the process used to make the product comply with standards, and that this compliance has been certified. Use of the label is usually owned and controlled by the standard-setting body. While the certificate is a form of communication between seller and buyer, the label is a form of communication with the end-consumer.

Quality Management System

A “quality management system,” is defined by ISO as the company’s structure for managing its processes or activities that transform inputs of resources into a product or service which meets the company’s objectives, such as satisfying the customer's quality requirements, complying with regulations, or meeting environmental objectives. A quality management system within food businesses usually has a wider scope than food safety and covers all quality elements. The system elements can be separated into two different groups - quality control that is operational requirements (product realisation, measurements, etc.) which eliminate causes of loss of quality - quality assurance that is managerial requirements (management responsibility, resource management and so on) that provide internal and external confidence in the company’s quality management. The reference for quality management system is the ISO 9000 series, which applies to every type of business.

Hazard Analysis Critical Control Point (HACCP): The HACCP concept was developed in the 1950s by the National Aeronautics and Space Administration (NASA) in order to guarantee that food used in the US space programme would be completely free of microbial pathogens. The HACCP concept has now become a valuable programme for process control of all food safety hazards, not only microbiological ones. It has been legitimised by the Codex Alimentarius. The HACCP concept is based on seven principles: 1. Conduct a hazard analysis; 2. Determine the Critical Control Points (CCPs); 3. Establish critical limits; 4. Establish a system to monitor control of the CCP; 5. Establish the corrective action to be taken when monitoring indicates that a particular CCP is not under control; 6. Establish procedures for verification to confirm that the HACCP system is working effectively; 7. Establish documentation concerning all procedures and records appropriate to these principles and their application.

Benefits of a Certified Food Safety Management System

Consistency; Due diligence; Consultation; Liability; Cost efficiencies
The food industry can undertake numerous tasks to ensure food safety:

- It may conduct hazard analysis test in order to identify hazards and finally removing them.

- It can also establish critical limits for each controlling point, procedures in order to maintain food making actions and to establish verification procedures in order to confirm the corrective steps taken.

- Employees must go through extensive training since they are also responsible for the right handling of food products.

- Distributors must ascertain the quality check of food articles.

- Give proper time to advertising, promotional activities and for marketing business. It is at this stage only that attracts customers.

Even though, there are no legal requirements for a food sector business to conform to standards, certification is voluntary. In these cases, a company may have its own reasons for seeking certification of conformity to a given standard, such as an internal product requirement or the desire to gain a strategic advantage in the marketplace since certification represents a sign of food quality and safety to consumers.

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