

# The role of food quality assurance and product certification systems on marketing aspects

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**Abstract.** The level of quality that a product offers to consumers is a fundamental aspect of competition in many markets. Consumers' confidence in the safety and quality of foods they buy and consume is a significant support to the economic development of production organizations of this type, and therefore the overall economic development. Consumer concerns about food safety as well as the globalization of food production have also led to the existence of a global internationally linked food production and distribution system. The necessity demanded by the consumer population to provide safe food with consistent quality at an attractive price imposes a choice of an appropriate quality assurance model in accordance with the specific properties of the product and the production processes. Modern trends, especially for the last ten years in quality assurance within specific production, such as the food industry, have marked the trend of hyperproduction and a number of production and safety standards, as well as a change of approach in the certification process of organizations according to one or more standards. This can be an additional source of costs for organizations, and can burden the food business operator's budget in order to ensure their consistent application and maintenance. Quality assurance (QA) standards are considered to be a proven mechanism for delivering quality of product.

## 1. Introduction

Generally speaking, food quality is a rather heterogeneous term because it is directly related to the individual perception of the consumer (end-user). Quality of goods is defined as a three-dimensional category consisting of: search, experience and credence [1].

The dimension of search is reflected by the buyer's individual perception of quality at the place of purchase using prior knowledge. The dimension of experience is characteristic in the period after the product has been purchased (after consuming the product and registering its taste and sensory properties). The third dimension (credence) of food quality can be regarded as in the case of an average consumer who rarely or never subjectively perceives the quality of the product, but they buy it because they gathered information from others – for example that organic food is healthy. The person's judgment on the quality of the product is, in fact, made by others [2,3].

As a matter of fact, food safety is an important issue that affects anyone who consumes food. Food safety could be classified as a new component of overall product quality and can make it into the third dimension of food quality. Attributes of the third dimension are characterized by a greater need for information about the product [4].

Some consumers are willing to pay marginally higher prices for quality assurance and hence reduced risk in food, especially during periods of safety concern [5].



Food Assurance Schemes are generally run as product certification schemes and use regular independent inspections to check that participants are meeting specific scheme standards. The scope of assured food schemes covers both primary production and processes covering the rest of the food chain as far as retail sale.

## 2. Consumers perception of food quality and public interest in safe food

Whereas in the first seven decades of the 20<sup>th</sup> century, consumers were interested in quantity and mainly sensory aspects of meat quality, the focus of their interest was later shifted to a comprehensive view of quality and especially to safety. Safe food has to be nutritious, and low in chemical contaminants and microbial counts. In order to enforce this among all the participants in the food chain, authenticity and traceability systems from farm to fork, including feed manufacturers, are required nowadays by directives and laws. Labelling systems or even further advanced nutrition and health claims have been introduced [6].

Consuming food, certainly, has great implications to human health. However, the importance between mutual relationships of certain groups of food-related risks is less clear. According to Bunčić [7], the confusion regarding this issue, often presented not only in the media, is greatly contributed to by the disagreement between the opinions of experts (based on research data) and perceptions of consumers (laymen). In a study conducted in the United Kingdom, food experts believed that wrong nutrition causes foodborne illness that can have a lethal outcome, whereas, contrary to that, consumer surveys show that approximately 50% of the population consider pesticides and additives as the greatest food hazards, and about 40% think that those are genetically modified ingredients.

A number of authors have dealt with the question of what really represents the quality of food when considered and applied to food supply chains. There are different interpretations about the general definition of quality [8,9,10]. From the large quantity of literature in regard to this issue, some commonly used food quality parameters have been identified (table 1).

**Table 1.** Commonly used food quality parameters [11].

Quality Aspect	Description
production method	traditional, ecologically acceptable
production place	regional or locally recognized product
traceability	fully traceable origin and production steps
characteristics of raw materials and authenticity	consumer recognition and standard quality they are used to
food safety	confidence in the safety of processes and technology of production, packaging, labelling, storage and distribution
nutritional properties	provides favourable nutritional properties and proper nutrition
sensory properties	appearance, freshness, texture, colour, smell, taste, consistency, appearance of the package, way of presentation
functional properties	food fulfils the intended purpose
biological value	food has properties that have a beneficial effect on the healthy life style

### 2.1. Definition of meat quality

The annual surveys conducted to collect data about the expectations and needs of consumers in supermarkets show that the main driving force for the purchase of fresh beef is the “taste” of meat. The taste ranks in first place, as a factor that is defined as “very important” when people make buying decisions. Holding second-, third- and fourth-ranked places as other important factors are: nutritional properties, safety and price, respectively [12,13]. This quality parameter (taste) is often called “tenderness” of meat, i.e. gauging how easily it is chewed or cut. Tenderness is a desirable property, as tender meat is softer, easier to chew, and generally more palatable.

The basic message is that the consumer wants to pay more for desirable taste. The taste is a measure of consumer satisfaction in food. Meat producers who want to be guided by their customer's demands must look at all the factors affecting the taste of their products [14].

### 3. Accredited product certification – the way to confirm and communicate quality of the product

Quality assurance (QA) standards are considered to be a proven mechanism for delivering quality of product and service [15].

The emerging effort to provide higher food safety and food quality has led to stricter safety specifications and a considerably increased number of quality assurance schemes both in an international and European Union (EU) level [16]. Beyond the usefulness of these quality assurance schemes to the consumers, the aspect of “quality” has also been accepted as an important ingredient of marketing, which offers producers a great opportunity to differentiate themselves in the market and add value to their products [17].

Production standards are set by the assurance scheme and vary across different schemes, generally covering food safety and traceability, animal welfare and environmental protection. Members of a particular scheme can use the scheme's logo on their produce, and/or use a specific claim, to advertise to consumers that the product has been produced to these standards [18].

The “Q Mark” for food products is owned by the scheme owner. The producer who wishes to use this mark on his product is required to obtain formal approval from the scheme owner for the use of the mark only after they have been assessed to be compliant to all the scheme requirements by the certification body (CB).

The International Accreditation Forum (IAF) and International Laboratory Accreditation Cooperation (ILAC) work constantly to maintain a high level in credible certification which is increasingly essential to world trade. This cannot be achieved without the added credibility of accredited certifications. Many mainstream product certification schemes (in the food sector) now have standards that are significantly above the legal minimum [18].

Nowadays, conventional-plus food products are increasingly available on the food market. These are conventional food products that communicate a specific attribute that also applies to corresponding organic products. Thus, conventional-plus products can be considered as products placed between organic and conventional products. Given this overlap with respect to specific attributes, conventional-plus products could compete with organic products. In particular, consumers who occasionally buy organic food might be interested in conventional-plus products [19].

Unlike existing certification schemes in different production sectors which, as a rule, only confirm that the product complies with regulations, there is an idea to develop specific certification schemes and certification procedures of foodstuffs in accordance with EN ISO/IEC 17065:2012. The scheme must be able to present the ways, if any, the scheme standards exceed the legal minimum.

The prerequisite for approval of the certification bodies by the scheme owner are accreditation by the National Accreditation Board for Certification Bodies (NBCB) providing accreditation to Certification Bodies based on assessment of their competence as per the Board's criteria and in accordance with International Standards and Guidelines.

These schemes are conceived as a voluntary product certification and are intended to enable the confirmation and communication of the qualitative characteristics of a particular product that in some way represent a comparative advantage on the market. In short, do you think your product has something that separates it from others on the shelf, and you want it, independently confirmed, to be communicated to customers. The steps for such a certification procedure should be: defining specifications, validation, certification, communication and surveillance. The certification mark (on the basis of the certified characteristics) is applied to the product and directly communicates the quality to the buyer.

#### 4. Conclusion

Accredited product certification is a logical supplement to the existing certification and food assurance systems. The success depends on a lot, but mostly on how much quality surrounds us. If quality management and assurance systems produce what they need, i.e. quality, then there is no remaining work to be done.

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