ACHIEVING SUSTAINABILITY IN FOOD SAFETY: AN ETHICAL CODE AS CORPORATE SOCIAL RESPONSIBILITY?

By Evelyne Nusalim

Consumers have the right to have safe and correctly processed food, and it is up to food regulators and food business operators to assure them of this. In fact, food fraud, with or without consequences on consumers' health, should be considered as a 'crime against the community'. The author suggests that establishing an Ethical Code for food business operators based on Honour, Honesty and Order will help to combat fraudulent practices, particularly if the Code is implemented as part of corporate social responsibility.

Introduction

In 1820, German chemist Friedrich Accum (1769 – 1838) was the first to raise the issue of food safety, linking it with food fraud as explained in his book: ' A Treatise on Adulterations of Food and Culinary Poisons'. He described, among others, 'coffee' adulterated with potato flour, roasted wheat and chicory to increase weight; colouring red cheese with red lead; and adulteration of cream with rice powder or arrowroot.

Years later, while working at the Department of Agriculture, American chemist Harvey Washington Wiley (1844-1930) launched a revolutionary experiment which came to be known as 'poison-squad trials'. The 'poison squad' comprised young, healthy men who consumed capsules of borax, formaldehyde, and other common food preservatives alongside their daily meals. The shocking results of the trials led to the 1906 Pure Food and Drug Act and eventually to the creation of the U.S. Food and Drug Administration (FDA).

There have been many instances of food fraud throughout the world, for example: in 1981 in San Diego (USA), horse meat was found in imported Australian beef, and the following year, kangaroo meat was discovered in boxes of beef which a company in Melbourne had intended to export to the USA.

Then in 2008, kidney stones and renal failure found in thousands of babies and children in China revealed the adulteration of dairy products with the nitrogen-rich industrial chemical, melamine, and cyanuric acid.

However, it was the 'horse meat scandal' in 2013, when the Food Safety Authority of Ireland (FSAI) reported that 37% of hamburger 'beef' meat tested positive for non-beef DNA, that led to the war against food fraud being declared globally. At that time, Prof. Alan Reilly, Chief Executive, FSAI, was quoted as having said "Whilst there is a plausible explanation for the presence of pig DNA in these products due to the fact that meat from different animals is processed in the same meat plants, there is no clear explanation at this time for the presence of horse DNA in products emanating from meat plants that do not use horsemeat in their production process. In Ireland, it is not in our culture to eat horsemeat and therefore, we do not expect to find it in a burger. Likewise, for some religious groups or people who abstain from eating pig meat, the presence of traces of pig DNA is unacceptable. We are working with the meat processing plants and the Department of Agriculture, Fisheries and the Marine to find out how horse DNA could have found its way into these products".

Food safety and economic fraud

The incidences mentioned above demonstrated the failure of food safety management in detecting food fraud for consumers' protection: in other words, the contamination of food by known ingredients, organisms, mishandling, or processing that can lead to public health risks.

Whether impacting on public health or not, common fraudulent practices include adulteration, added weight, colouring with harmful substances and tampering of food, all of which have taken place for more than 200 years and till today, they remain a significant challenge for regulators and food business operators. Unfortunately, detection of food fraud can be done only after the fraud is committed and does not prevent it.

The European Union has four criteria to determine food fraud: Violation of EU Food Law; Intention; Economic Gain; and Deception of Customer (Fig 1).

Although some practices such as the use of carbon monoxide as a colouring agent are not harmful to health, they are nevertheless prohibited. Others, such as the addition of water to increase weight of the product, are allowed to an extent.

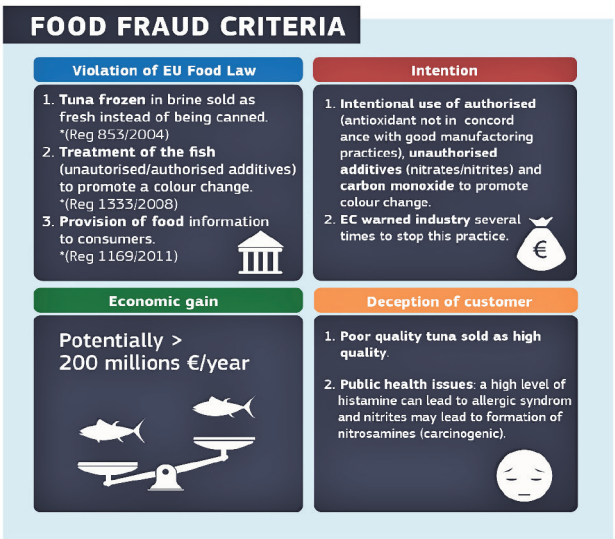

Figure 1: The EU Food Fraud Network and the System for Administrative Assistance - Food Fraud Annual Report 2018

Regulations on addition of water

To increase weight, product is often mixed with salt and phosphates or non-phosphates to allow it to soak up water before freezing, and by glazing the product with a layer of water while freezing. This is allowed as long as the substances used are in the list of permitted additives. If more than 5% water is added, this should be indicated on the ingredient list, and must be clearly stated in the name of the product; for example, 'shrimp with water'. With regard to glazing, EU regulations do not specify a limit, but the weight with glaze may not be put on the label, only the nett weight.

CBI, the Dutch Centre for the Promotion of Imports from developing countries, wrote that mislabelling of added water is widely practised in Europe, taking advantage of the insufficient regulatory framework for practices which are not considered as being harmful for the health of consumers. In its newsletter, CBI notes that EU regulations permits up to 5% water to be added without being mentioned on the label as an ingredient. Consequently, all processed food contains 5% added water without any mention, with consumers paying for the added weight to the product. Furthermore, 20% glaze labelled in packaging of shrimps and, under-declaration of glazing (usually more than 20%) is common practice in the wholesale markets of Europe.

However, according to Seafish's 'Glazed Seafood Weight Indication Guidance', only 10% glazing is needed to prevent dehydration. Overglazing with unnecessary 'content' of 20% more water, demonstrates intention of fraud, especially as it goes parallel by implementing the 'frozen count' implying that the count of shrimps is inclusive of 20% water. and not 'actual count' as stipulated in the Codex Alimentarius: *'When declared on the label, the count of shrimp shall be determined by counting the numbers of shrimp in the container or a representative sample thereof and dividing the count of shrimp by the actual deglazed weight to determine the count per unit weight.*

In the Netherlands, product is commonly labelled with content (inhoud) in (kilo)grams, indicating weight (with glaze) in addition to net weight without glaze.

In personal communication (January 2015) with the Directorate-General for Health and Food Safety of the European Commission on the question of labelling of net weight and overglazing, clarification was given as follows:

'With regard to pre-packed glazed foods, Regulation (EU) No 1169/2011 introduces a new provision in relation to the indication of the net weight compared to the previous Directive 2000/13/EC. In particular, in its Annex IX, point 5, it requires that "Where the food has been glazed, the declared net weight of the food shall be exclusive of the glaze". This provision applies regardless of the quantity of the glaze and was particularly introduced in order to prevent the fraudulent practices in relation to the indication of the net weight for glazed foods. It should also be clarified that under the new Regulation in case of glazed foods it is not allowed, even on a voluntary basis, to declare the weight of the glazed food inclusive of the glaze (total/gross weight), in addition to the indication of the net weight exclusive of the glaze. Therefore, the calculation of the net weight inclusive of glazing, and even of over-glazing, is in breach of applicable labelling rules'.

For method analysis where there is no harmonised EU regulation, the DG Health and Food Safety clarifies it as follows:

'However it is worth reminding that the absence of a EU harmonised method of analysis does not prevent official controls from being carried out. In the absence of such harmonised method, article 11 of Regulation (EC) No 882/20041 indicates that the methods of sampling and analysis used should comply with internationally recognised rules or protocols, or, in their absence, with other methods fit for the intended purpose or developed in accordance with scientific protocols. At international level, Codex standards have already been adopted for several commodities, and a Guide for the verification of drained weight of prepacked food has been elaborated by the European Cooperation in Legal Metrology (WELMEC).'

According to CBI, although it is illegal to mislabel, these practices are not a threat to human health. They are considered to be economic crimes and are therefore less of a priority for the authorities. The CBI states that it is mainly up to the industry to act against these practices and that action, led by European industry bodies, is expected soon.

Similarly, investigation by Belgafood, the association of Belgian food importers, revealed that 50% of the frozen shrimp imported into Northern Europe from Southeast Asia is short-weighted because of over-glazing. However, it should be added that the overglazing, frozen count and short-weight is always done following the instructions of the importers – a 2013 Belgafood survey clearly demonstrated that the brands found with overglazing and short-weight are mostly importers' own brands. In such cases, the processors in third countries do not gain economically by misleading European consumers. Here, the fraud is committed in Europe – it is not only the labelling, but also the information provided by the sellers in Europe that is purposely misleading.

This should be regarded not as 'economic fraud', but a criminal offence, because it is explained as if the processors in Asia set out to mislead not only consumers, but also importers and the authorities. Rather, it may be their ignorance of the General Food Law and Criminal Law applicable in the European Union that leads them to accept orders that do not comply with the EU regulations.

Time for an ethical code

In a 2015 publication 'The Significance of Food Fraud in Australia', food fraud is described as being caused by the conduct of fraudulent business operators. Combatting food fraud is generally divided into three steps: detection of the fraud, investigating the (infra)structure and prosecuting those responsible. Detection of fraud can be done only after it has happened, and the focus is only the material used which carries food safety risks. However, ways to prevent the conduct of fraud are not thoroughly investigated.

As the first priority of the European Commission is to combat fraud that harms the health of consumers, we can take a look at the role of others such as medical doctors, who also deal with the health of the patient.

Medical doctors are bound by an ethical code loosely based on the oath of Hippocrates and adapted to values in different countries. Medical ethics are based on a set of values that Tom Beauchamp and James Childress ('Principles of Biomedical Ethics, 1993') have described as a "four principles" approach: autonomy, non-maleficence and beneficence, as well as justice (fair treatment) for everybody. It gives guidance on self-determination, on not harming the patient, and promoting the well-being of the patient, and justice. Furthermore, to be a doctor requires some level of accreditation before they can practice, and this certificate could be withdrawn in the case of fraud. Food business operators and food handlers should be treated similarly; for the present, committing food fraud does not always lead to withdrawal of business licences. Operators can just file for bankruptcy after the fraud is detected, and begin again the next day, eventually in another country. The biomedical ethics model could therefore be applied to food business operators, requiring them to possess the integrity to provide safe and correctly processed food.

According to Barbara Killinger, a Canadian psychologist and writer: *"Integrity is a personal choice, an uncompromising and predictably consistent commitment to honor moral, ethical, spiritual and artistic values and principles".* In other words, 'doing the right thing for the right reason'. But 'doing the right thing' is subjective. Establishing an Ethical Code, based on a convention of norms and values, to reach agreement on the definition of 'doing the right thing' could contribute to correctly processed and safe foods so that consumers are getting what they paid for.

If food business operators take the example of the medical field and establish a professional Ethical Code acknowledged by national and international law as the code of conduct for everyone in the food business, it could work in the same way as for medical doctors, reducing incidents, conflicts and fraud.

The Ethical Code should consider well-defined norms and values, including :

Honour (self-respect): a respect for principles and morals when selling food to feed other human beings and being truthful, with a sense of duty as a reflection of their honour;

Honesty (respect toward others): Honesty is indispensable in ensuring the safety of food in order to protect the health and lives of those consuming the food;

Order (respecting laws and regulations): Consumers' protection is established by rules and regulations. Food business operators should therefore behave in an orderly fashion, respecting and implementing these rules and laws;

Honour, Honesty and Order (H2O – the formula of water): As water is a necessity for life, food safety is too.

An Ethical Commission that has the power to evaluate the conduct of business operators and recommend remedies and/or withdrawal of the business licenses, could monitor

the implementation of the Ethical Code. Decisions of the Commission should be binding and respected by all parties concerned to protect consumers' well-being and rights and to ensure fair competition among food business operators.

Food business operators should also be required to obtain personal certification and/or a diploma, which will demonstrate their ability. It will also raise awareness on the importance of their actions, and motivate them to do the right thing for the right reasons in providing safe food.

Conclusion

In his book 'Treatise on Adulteration of Food', German chemist Frederick Accum (1769 – 1838) writes: *The man who robs a fellow subject of a few shillings on the high-way, is sentenced to death; while he who distributes a slow poison to a whole community, escapes punishment'.*

Establishing an Ethical Code would help to ensure that those who take actions (even unintentionally) for unfair gain and which impact negatively on consumers' health, can be brought to account. This Code would ideally be part of the Corporate Social Responsibility for food business operators. Furthermore, requiring operators to possess a diploma or certification regarding food safety and food law as well as an Ethical Code should be considered to sustain a high level of protection for consumers. Abusing consumers for economic gain should also be considered a crime against community.

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