

Tackling food fraud

Results of the FSSC 22000 Pilot audits on Food Fraud prevention: *Practical implications of integrating Food Fraud Assessments and Measurements into your internal control environment*

Food fraud incidents have been making headlines for the past couple of years. The potential health hazards it brings to consumers are unacceptable and make this intentional tampering with our food products a true criminal offence.

Subsequently, PwC research demonstrates that it not only damages the specific company's reputation but rather affects the whole industry that particular company operates in. It affects consumer trust in a structural manner and hence is above all a costly matter which reaches beyond individual company profits.

The continuous global news stream of food scandals resulted in actions from:

- Government - stricter regulations and controls have been put in place such as the new Food Safety Modernization Act (FSMA) in the USA and the Chinese Food Safety Law.
- Industry - development of the food fraud vulnerability assessment tool by PwC and SSAFE and new GFSI requirements on food fraud prevention and mitigation

The new GFSI requirements require of recognized certification schemes such as FSSC 22000 to build in fraud prevention and mitigation requirements. FSSC 22000, PwC and Wageningen University, joined forces to organize pilot audits with five global food manufacturing companies and five FSSC 22000 licensed Certification Bodies. The purpose of this pilot was threefold:

1. Understand impact and efforts required as a result of the new GFSI food fraud prevention and mitigation requirements
2. Pilot the new GFSI food fraud prevention and mitigation requirements and collect input for a harmonized audit approach
3. Gain an understanding in the difficulties encountered and lessons learnt regarding using the Food Fraud Vulnerability Assessment (FFVA) tool

The results of these pilot audits are presented in this paper.

“The pilot audits have been extremely useful for not only the participating companies, but also for FSSC to understand the perception and understanding of the food fraud prevention concept. In addition, it provided feedback on how companies did or not incorporate this new concept into their food safety management systems”.

FSSC 22000 requirements Food Fraud prevention

Documented procedure

The organization shall document, establish and maintain a procedure for food fraud vulnerability assessment that;

- Identifies potential threats
- Develops mitigation measures, and
- Prioritise them against the threats.

Assessment and protective measures

In order to identify the hazards, the organization shall assess the susceptibility of its own end-product (or raw materials in case of farms where applicable) to potential acts of food fraud,

- The organization shall put in place appropriate defensive processes to protect animal health and public health from food fraud. These processes shall;
- Be controlled within the scope of the food safety management system offered for FSSC 22000 certification;
- Not breach any current legislation.

Annual review as a minimum

- The food fraud prevention procedure shall be reviewed at least annually, and
- After each actual or potential failure of a mitigation measure.

Sharing lessons learnt in preparing for a Food Fraud Vulnerability Assessment audit

- The participating pilot companies highlighted that the food fraud vulnerability assessment requires involvement from multidisciplinary teams. We noted that the Quality departments took the lead in conducting the assessment but were supported by for example procurement, legal and HR.
- Both pilot companies and auditors felt challenged by the requirements of food fraud vulnerability assessment. Acknowledging this is an intentional risk area, the approach offered by the SSAFE/PwC tool differs significantly from traditional HACCP analysis. By nature, many questions in the SSAFE/PwC tool need to be addressed on subjective information or insights as pilot companies did not always have fact based insights into specific fraud issues relating to their product or such knowledge was simply not available. Although very understandable knowing that fraudsters often do not provide evidence of their actions upfront, it puts more pressure on the assessment process within the company. Food fraud prevention and mitigation requires multi-competence support collecting as many insights on the unknown risks as possible ensuring that the subjective opinions and insights are objectified by thorough internal discussions and review. Auditors should therefore put focus on the quality of the vulnerability assessment process, not just on the outcome.

Companies and auditors feel sufficient knowledge is present yet maybe too focused on known food fraud risks

- Knowledge of historical food fraud cases on product level was present. Pilot companies involved felt comfortable in determining the level of vulnerability they are exposed to - be it only the known risks. Nevertheless, knowledge on food fraud needs to be increased as focusing on 'the known' will create blank spots. Visibility of supply chains and geographical origin of products - and as such which risks they face - are areas where companies may still be left in the dark.
- Food fraud is also a fairly new topic for auditors, though they felt sufficient subject matter expertise is available. According to auditors an additional qualification would not be necessary however auditors do believe it is essential to provide and have access to adequate training.

Additional guidance for certification bodies is desirable

- With regards to new requirements, the pilot group certification bodies believe improvements can be made regarding the guidance provided to their assessors.
- It could be of help for example set to minimum requirements for documentation and to provide clarifications around minimum audit expectations to demonstrate meeting the new FSSC 22000 scheme requirements. This would also help in ensuring a more consistent audit approach and thus contribute to a more similar application of professional judgement. Consumers or industry parties relying on the new certification for food fraud prevention and mitigation may expect this from FSSC 22000 certified companies.

Addressing food fraud requires time and resources in a multi-competence approach

- The time efforts required to conduct a robust vulnerability assessment ranged on average from three to up to seven months. This is considered to be a substantial effort in order to prepare a company prior to implementing a food fraud prevention and mitigation system.
- Auditors expect additional audit time will be required to include food fraud as part of the existing audit procedures. Needless to say, the time requirements strongly depends on the complexity of the organization and significance of food fraud risks and the company's efforts in food fraud prevention and mitigation.

“Staff involved was learning along the way and developing knowledge and skills through a trial and error approach which is typically seen in a range of food companies managing this relatively new issue”

Limited mitigation measures were identified and implemented for vulnerabilities detected...

Food Fraud is a topic which was until recently not part of a company's food safety management systems. Conducting a formalized food fraud vulnerability assessment and formulating prevention and mitigation measures was therefore a new exercise for the pilot companies.

It was noted that companies are putting in great effort to assess their vulnerabilities and that first steps have been made. However, the assessments are not yet implemented in a systematic manner, its scope maybe limited to known risks and often not sufficiently documented specifically when justifying vulnerability assessments. Most pilot companies struggle to determine adequate mitigation measures or simply have not implemented those effectively. In other words, there is limited expertise in institutionalising the vulnerability assessment, prevention and mitigation efforts within management systems of companies.

Some companies are currently in the process to define control plans (Vulnerability Assessment CCP's) though in most instances, no control measures were in place for *all* identified risks or controls were not documented. Furthermore, most controls were reactive by nature and had a technical character for example performing additional checks on raw materials. Developing a technical, and reactive approach may not only be limited to food fraud mitigation, it can also be very cost ineffective.

...As such, assessors could not validate the effectiveness of control measures

Because most companies did not fully implement controls, the effectiveness of the mitigation measures could not be assessed.

Furthermore, the pilot group of certification bodies pointed out that for this section, the new requirements should provide more guidance on how to assess the implementation and verification of adequate control measures.

Pilot companies versus the global PwC/ SSAFE Food Fraud Vulnerability Assessment Tool

To date, hundreds of food companies used the FFVA Tool to assess their food fraud risks. The questionnaire is divided into the three fraud dimensions; opportunities, motivations and control measures.

A comparison of the anonymised results of the FFVA tool and this pilot exercise shows the following parallels:

- 89% of the food manufacturers report to be familiar with no to a few fraudulent issues regarding their raw materials
- Meanwhile, 88% of the food manufacturers replied to not have any or only ad-hoc fraud detection methods in place
- 42% of their suppliers do not have or only have a limited food safety management system in place

The majority of companies have not fully integrated fraud mitigation measurements into their internal control environment yet

FSSC 22000 version 4

On 22 December 2016 FSSC 22000 has launched version 4 of its international food safety and quality management system certification Scheme. Based on the experience in applying version 3 during the past years and the expectations of major stakeholders (among which authorities and industry), FSSC 22000 has effectuated several major changes to improve consistency and stringency amongst others requirements for prevention of intentional product contamination have been added to the Scheme.

This new release of the Scheme is the result of a 14 month global consultation process with key stakeholders such as representatives from industry, certification bodies, accreditation bodies, training organizations and governments. The overall project was managed by the FSSC 22000 team and guided by its Advisory Committee and Board of Stakeholders.

The FSSC Board of Stakeholders has determined that all certified sites, shall be audited against version 4 starting from January 1, 2018.

The new Scheme requirements can be downloaded for free from the FSSC 22000 website and the certificate fee will not be increased to facilitate accessibility for all stakeholders.