WHITE PAPER

THE FUTURE OF FOOD SAFETY AUDITING THINK TANK

2024

TABLE OF CONTENTS

EXECUTIVE SUMMARY

The Future of Food Safety Auditing Think Tank, convened from August 2023 to April 2024, brought together leading experts and stakeholders to address urgent needs in food safety auditing practices. Its findings and recommendations aim to evolve the auditing landscape, enhance audits' effectiveness and efficiency, and safeguard public health.

The Think Tank was established in response to persistent and evolving challenges in the food safety landscape. It sought to fundamentally rethink the approach to food safety audits, aiming to transition from a compliance-focused model to one that is proactive, inclusive, and continuously improving.

The Think Tank featured over thirty professionals from diverse backgrounds and eighteen countries, each contributing a wealth of experience from various sectors within the food and beverage industry, including regulating bodies and corporate and academic spheres.

The Think Tank's methodology was structured and comprehensive, starting with a SWOT analysis to identify current practices' strengths, weaknesses, opportunities, and threats.

The Think Tank identified significant issues such as non-harmonized audit schemes, the overemphasis on compliance, and the need for improved governance and integrity in audit programs. Current practices benefit from a solid scientific and risk-based foundation established by initiatives like the Global Food Safety Initiative (GFSI).

However, improvements in technology adoption and stakeholder engagement are needed. Significant opportunities exist to enhance food safety culture, integrate digital tools, and streamline audits to focus on critical risks rather than extensive compliance checklists.

The SWOT analysis was followed by collaborative brainstorming to address identified issues and culminated in strategic recommendations organized under critical thematic areas: governance, requirements and reporting, profession, digital transformation, and mindset.

The Think Tank's work marks a pivotal step toward a more robust and proactive food safety auditing process. By implementing these recommendations, the industry can enhance public health protection, foster trust in food safety practices, and build a legacy of improved safety standards for future generations.

The industry is urged to adopt these changes swiftly to address current deficiencies and anticipate future challenges. It includes enhancing collaboration, embracing technological advancements, and continuously engaging all stakeholders in a dialogue to refine and improve food safety auditing practices.

PARTICIPANTS LIST

Sincere thanks to:

Abhay Kumar Grover
Amanda Sharman
Brian Windsor
Bruce Ferree
Bruno Séchet
Ceyda Kiran
Chris Reno
Chyrssa Dimitriadis
Cristian Stelea
Dr. Sylvia Pfaff
Elsbeth Spelt
Felix Amiri
Gabor Molnar
Hager Yehia Shalaby
Hendrik Ludik
Jules Rojer
Kamila Jerykowska
Kelly Mulholland
Kuljeet Jagdev
Laure-Anne Mathieu
Leslie Bourquin
Luciana Heredia
Marc Barnes
Marc Cwikowski
Mitchell Campbell
Naresh Goyal
Nellie Prinsloo
Nimisha Suraj
Phyllis Amedormey
Remi Michalowski
Ricardo Carinhas
Smita Murthy
Thea Lauf
Tülay Kahraman
Vera Dickinson

FOREWORD

The Think Tank on the Future of Food Safety Auditing was established in August 2023, recognizing the urgent need for innovation and strategic insight in food safety auditing. It concluded its work in April 2024.

During its time, the Think Tank brought together food safety auditing leaders and experts to collaborate on proposing new approaches to auditing that would improve overall practices. Through in-depth research and analysis, the Think Tank identified key challenges facing the current auditing system and proposed a series of recommendations for addressing these issues. Overall, the Think Tank's work laid the foundation for a more practical, efficient, and impactful approach to food safety auditing in the coming years.

The Think Tank on the Future of Food Safety Auditing represents a pivotal step in the quest for a safer food supply chain. Our collective efforts, rigorous research, and strategic recommendations have laid the groundwork for transformative changes in food safety auditing. As this white paper will influence policies and practices, the vision of a more robust and innovative auditing landscape comes closer. The journey ahead is promising, and with continued collaboration and commitment, we will shape a future where food safety is not just a compliance requirement and a license to operate but a shared value and a testament to our dedication to continuous improvement and safer food.

Our commitment to this cause will remain the same as we strive for excellence in every aspect of the food safety auditing process. With each step forward, we are building a stronger foundation for the future. Together, we can ensure that every link in the food supply chain is held to the highest standards, protecting the health and well-being of consumers around the world.

The Think Tank on the Future of Food Safety Auditing is not just about charting the future; it's about creating it together. By working collectively to implement the recommendations outlined in this white paper, we can ensure that food safety auditing becomes a proactive and preventative measure rather than a reactive one. Through ongoing collaboration and a shared commitment to excellence, we can pave the way for a future where consumers can have complete confidence in the safety of their food. Together, we can make a tangible difference in the industry and create a legacy of safer food for generations to come.

WHY A THINK TANK ON THE FUTURE OF FOOD SAFETY AUDITING?

The future of food safety auditing faces uncertainty, necessitating a substantial shift in the current methods to align with evolving expectations, needs, and technological advancements.

In 2000, the Global Food Safety Initiative (GFSI) aimed to collectively tackle significant food safety incidents, enhancing overall food safety protocols. GFSI did a fantastic job and continues to have a tremendous impact. However, despite the increase in sometimes redundant audits under GFSI-recognized programs, other multiple certification efforts, second-party and first-party audits, persistent food safety issues, and unidentified risks highlight the limitations of the traditional, retrospective audit model.

To overcome these challenges, a fundamental change in the approach to food safety audits is crucial, focusing on their purpose, execution, and outcomes. The effectiveness of future food safety auditing will depend on how well it is restructured and the integration of emerging technologies. Transforming auditing from being viewed as a costly burden to a valuable asset requires collaborative efforts. It involves streamlining overlapping audit processes, revising the framework of audits, and enhancing auditor skills through joint initiatives across the food and beverage industry.

The Think Tank was established through a shared ambition to improve the landscape of food safety auditing. This initiative sprang from a recognized need to elevate governance, processes, and practices in a sector critical to public health and safety. The primary objective of this group was to engage in rigorous, independent research and analysis addressing the most pressing issues within the field of food safety auditing. By dissecting complex challenges and offering well-founded insights, the Think Tank aimed to stimulate public discourse on essential food safety auditing matters, with the ultimate goal of contributing positively to the domain.

The formation of the Think Tank provided a dedicated platform where experts from diverse backgrounds could converge. This amalgamation of perspectives ensured that discussions and outcomes were well-rounded and deeply informed. The Think Tank was not just a gathering of experts; it was a melting pot of ideas where the future of food safety auditing was envisioned and strategized.

In pursuit of its mission, the Think Tank committed to undertaking a comprehensive and impartial analysis of critical issues that affect food safety auditing. Each task was designed to unravel the intricacies of current practices and identify potential areas for enhancement.

The insights derived from these studies were meticulously compiled and shared with relevant parties to foster informed decision-making. Furthermore, the Think Tank's findings were made accessible to the broader community to stimulate debate and encourage a wider engagement with the challenges.

Establishing the Think Tank also catalyzed dialogue and collaboration among all stakeholders in the food safety auditing ecosystem. The Think Tank aimed to nurture a culture of continuous improvement and innovation by facilitating an ongoing exchange of knowledge and strategies. The ultimate goal was to contribute positively and lastingly to the domain, ensuring that food safety practices keep pace with global changes and continue to safeguard public health.

Through its concerted efforts, the Think Tank sought to address immediate concerns and shape the trajectory of food safety auditing into the future. By laying down a foundation of thorough research and collaborative problem-solving, the Think Tank aspired to leave an indelible mark on the discipline, steering it towards greater impact, reliability, and efficacy.

WHO PARTICIPATED?

The Think Tank, comprising over thirty professionals, boasts an impressive global representation, with members from eighteen diverse countries spanning all continents (see figure 1).

Figure 1: Countries where Think Tank members are based

This international assembly underscored the Think Tank's commitment to incorporating various cultural and geographical perspectives into their discussions and solutions. Each member brought an average of more than twenty-five years of specialized experience, highlighting the depth and expertise available within the group.

Members were drawn from various food and beverage industry sectors, encompassing roles from production to policy-making. This included executives from multinational corporations, influential scheme owners who set standards within the industry, and representatives from certification bodies that ensure compliance with global best practices.

Their work ensures that the industry maintains high food safety standards, which are vital for consumer protection and trust.

Additionally, the group included freelance auditors and consultants who provide independent assessments and advice to companies worldwide, ensuring that the Think Tank's recommendations are pragmatic and can be implemented across different operational frameworks. This practical approach was complemented by the academic rigor provided by members who are affiliated with renowned universities. These academicians contribute cutting-edge research and theoretical insights, which are crucial for driving innovation in industry practices.

Moreover, the Think Tank was enriched by the participation of experts from intergovernmental organizations. These members brought a macro-view of global food security and regulatory challenges, facilitating discussions that focused on industry standards, achieving sustainable development goals, and addressing cross-border issues.

Together, the diverse backgrounds and wide-ranging expertise of the Think Tank members enabled a holistic approach to tackling the challenges facing food safety auditing and the food and beverage industry. Their collaborative efforts aimed to shape effective but also equitable and sustainable recommendations, reflecting the industry's complex interplay of local and global factors.

METHODOLOGY FOLLOWED

Our approach was meticulously designed to be methodical and inclusive, aimed at uncovering the core challenges and opportunities within food safety auditing.

Here's a detailed look at how we embarked on our mission:

A. Comprehensive SWOT Analysis:

We began our journey with an in-depth SWOT analysis to map out the current food safety auditing landscape's strengths, weaknesses, opportunities, and threats. This initial step was crucial, as it gave us a panoramic view of the existing conditions and their intricacies. By identifying areas of strength, we could leverage them to address vulnerabilities; understanding the threats helped us anticipate future challenges while recognizing opportunities guided our strategic direction. The SWOT analysis provided a clear snapshot of where food safety auditing stands in the broader food and beverage industry. It also helped us understand the dynamics, including technological and competitive changes. The graph below depicts how the **141 outputs** generated by the SWOT analysis are distributed. It is interesting to note the perfect balance between weaknesses and strengths, as well as between threats and opportunities (see figure 2).

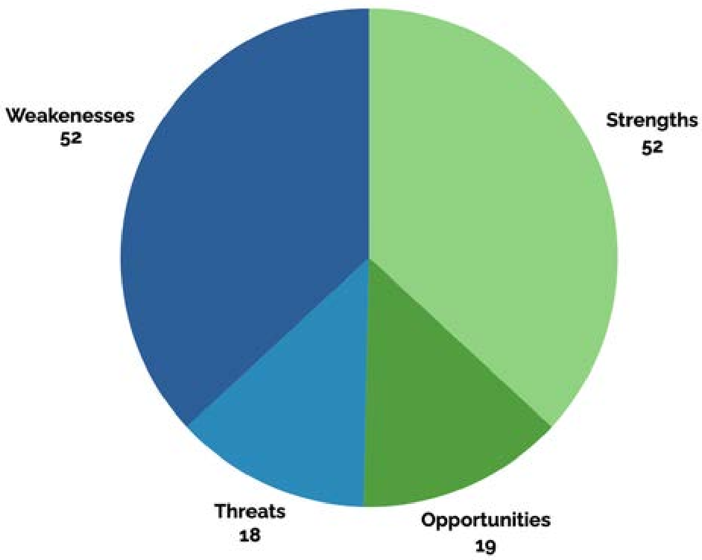


Figure 2: Number and distribution of the SWOT analysis's outputs

B. Collaborative Brainstorming

Following the SWOT analysis, we engaged in extensive brainstorming sessions involving all members of the Think Tank. These sessions were designed to dig deeper into the potential root causes of the most pressing issues identified earlier. By involving diverse experts, we ensured that multiple perspectives were considered, leading to a holistic understanding of each challenge. This step was fundamental in ensuring that our recommendations were not just superficial fixes but addressed the underlying factors contributing to the observed problems.

C. Solutions and Recommendations:

Armed with a deep understanding of the root causes, the Think Tank formulated various solutions, recommendations, and potential pathways for further exploration. The proposals were crafted to tackle the critical issues directly, focusing on creating sustainable and impactful changes. This phase involved critical evaluation and selecting ideas that promised the highest potential impact, ensuring that our recommendations were practical and actionable.

D. Categorization of Proposals Under Key Themes:

To enhance the clarity and focus of our efforts, we categorized our proposed solutions and recommendations under five main themes:

1. Governance
2. Requirements and Reporting
3. Profession
4. Digital Transformation
5. Mindset

This thematic approach allowed for targeted and coherent strategies to emerge, each aligned with specific aspects of food safety auditing. By organizing our recommendations under these themes, we ensured they were comprehensive and structured in a way that facilitated easy implementation and tracking of progress over time.

Through these methodical and inclusive steps, we aimed to create a robust foundation for advancing the field of food safety auditing, ensuring that our recommendations addressed the present challenges and paved the way for future enhancements.

BACKGROUND AND KEY HIGHLIGHTS

Looking at the history of food safety auditing, we see it began as a disjointed and varied practice in the 1980s, with audits designed more for individual company assurance rather than broader public health outcomes. These early audits needed a standardized approach, leading to inefficiencies and inconsistencies in ensuring food safety across different regions and companies.

The late 20th century saw significant advancements with the introduction of the ISO 9000 series, followed by ISO 22000, which provided a framework that was adaptable for food safety through structured management systems—this period marked the beginning of a formal approach to food safety, although the focus remained heavily on compliance.

As global trade expanded and technology improved, the complexity and scope of food safety challenges grew. High-profile incidents increased consumer awareness and regulatory scrutiny, underscoring the need for more effective and harmonized food safety standards.

Established in 2000 in response to a spate of global food safety crises, the industry played a pivotal role in establishing the Global Food Safety Initiative, which sought to restore consumer trust and establish a unified front in food safety standards. By aligning multiple stakeholders under a joint mission, GFSI aimed to enhance food safety across all food industry sectors.

A. Strengths of the current approach

The SWOT analysis revealed strengths aligned with this early approach of GFSI and its philosophy, the most important ones being:

1. A science and risk-based approach promoting continuous improvement and food safety culture:

This scientific basis ensures that the recommended practices and protocols effectively prevent, detect, and address food safety hazards. The structure is supported by a risk-based approach, prioritizing the areas of concern and focusing resources on areas with the highest risk. Continuous improvement is defined as the system's running engine, and the culture forms the backbone of the entire system.

2. An objective assessment, providing trust and external recognition:

As a critical element, objectivity is there to provide the basis for an unbiased and trusted assessment while promoting consistency across the entire supply chain and the industry. Companies with certifications are given a competitive edge and expand into international markets.

3. A streamlined process for accreditation and certification:

The streamlined food safety accreditation and certification process provides a framework harmonizing global standards, aiming to reduce the redundancy of multiple audits for companies. The goal is to simplify the certification pathway, saving time and resources.

4. Publicly available information for the improvement of knowledge and capabilities:

The industry is supported through continuous learning and improvement by providing open access to guidelines, best practices, and educational materials. This approach is there to ensure that all stakeholders, from small producers to large corporations, have the necessary resources to implement effective food safety practices, fostering a culture of transparency and proactive improvement.

5. Promoting collaboration within the food industry and all stakeholders involved:

Fostering partnerships and open communication between suppliers, manufacturers, regulators, and consumers help the industry address challenges and innovate solutions more effectively. This collaborative approach accelerates the adoption of best practices and enhances overall trust and transparency across the food supply chain.

B. Opportunities of the current approach

The opportunities the Think Tank participants defined provided a base for and gave early signs of possible solutions and recommendations later identified throughout the process. Therefore, we do not list them separately here but cover them together with all the Think Tank recommendations.

C. Key Issues and Potential Root Causes

The original idea of having benchmarking requirements had all the necessary components and good intentions. However, it is difficult to say that these components are able to deliver the required results to their full potential today. As we speak, the number of certificates is increasing, and the food industry is still struggling with the incidents, recalls, and the implications of unsafe food.

The SWOT analysis pointed out an extensive list of weaknesses and threats that food safety auditing needs to address to create a better future, see the full list in the annex.

For the sake of focus, the Think Tank first prioritized those into 7 main areas of concern:

1. Food safety auditing programs are perceived prioritizing compliance over cultivating a culture of continuous improvement.
2. The audit process deviates from its main objective to improve food safety.
3. The value, the credibility of auditors and the trust in the results of 3rd party certification audits are being challenged.
4. The current audit documentation required is a challenge.
5. The lack of of food safety auditing harmonization is also a challenge.
6. Embracing new technologies such as AI, data analytics, and machine learning is lagging.
7. There is an auditor shortage.

All potential root causes were then collected and reviewed with the intention of classifying them into common themes and deploying the working groups accordingly. The classification also helped to target the primary audience of those issues raised. The figure below shows the distribution of the **127 potential root causes** identified into 3 themes (see figure 3):

1. Design of schemes and audit programs
2. Understanding of FSMS, roles and responsibilities, and the value of audits
3. Implementation of schemes and audit programs

	Design of Schemes and Audit Programs	Understanding of FSMS, roles and responsibilities and the value of audits	Implementation of Schemes and Audit Programs	Total potential root causes
Why are food safety auditing programs perceived as prioritizing compliance over cultivating a culture of continuous improvement?	12	4	2	18 (14%)
Why is the audit process deviating from its main objective to improve food safety?	11	5	8	24 (19%)
Why are the value perceived through 3rd party certification audits, the credibility towards the auditors and the trust in the results being challenged?	11	1	8	20 (16%)
Why is the current audit documentation required a challenge?	14	0	2	16 (13%)
Why is the lack of food safety auditing harmonization a challenge today?	13	1	1	15 (12%)
Why is embracing new technologies like AI, data analytics, and machine learning lagging?	10	4	1	15 (12%)
Why is there an auditor shortage today?	12	2	5	19 (14%)
Total potential root causes	83 (65%)	17 (14%)	27 (21%)	127 (100%)

Figure 3: Number, percentage, and classification of potential root causes identified

KEY ISSUES AND POTENTIAL ROOT CAUSES

1. Design of Schemes and Audit Programs

This theme consolidates all the issues and potential root causes while addressing improvement opportunities linked to the design of the schemes and audit programs.

1.1 Lack of Focus on Continuous Improvement

The current focus on compliance in food safety audits overshadows the essential need for continuous improvement. Food operators are subjected to audits that evaluate adherence to established requirements crucial for certification. This compliance-driven approach limits opportunities for enhancing existing practices, as auditors are often time-constrained and must adhere strictly to compliance checks, sidelining any initiatives aimed at process enhancements or innovations that could contribute to ongoing improvements in food safety.

1.2 Requirements and Change Management

The dynamic and rapidly evolving landscape of food safety requirements involves a burgeoning array of standards driven by multiple stakeholders such as global standards organizations, regulatory bodies, private companies, and retailers, extended in some cases with addendums. This proliferation of standards results in a complex environment where changes are frequent and demanding, placing substantial pressure on certification bodies and food operators to continuously update their practices and training programs. The agility required to adapt to these changes is substantial and often results in significant resource strain. The food operators must invest considerable time and resources to stay compliant, and there is usually little research or data available to proactively understand the impacts and effectiveness of these frequent updates.

1.3 Reporting and Digitalization

Reporting within the realm of food safety certifications is cumbersome and often needs more clarity, primarily due to the complex relationships among auditors, the entities being audited, the certification bodies, the accreditation bodies, and the scheme owners. This complexity obscures the primary objectives of reporting, transforming it into a procedural task focused more on validating the auditor's decisions rather than enhancing food safety processes. The practical value of audit reports is under scrutiny, as different stakeholders have varying needs. For instance, auditees often disregard most parts of the report, focusing solely on the pages detailing the findings. This raises an important question: "What is the true purpose of these reports?". Furthermore, the food industry has been slow in adopting advanced technological solutions that could streamline these aspects, such as digital reporting tools, due to perceived risks and a lack of readiness for digital transitions, which hampers efficiency and transparency in the auditing process.

1.4 Non-harmonization of Schemes, Requirements, and Customer Expectations

A number of food operators need to hold multiple certifications for business reasons. A significant challenge in food safety auditing is the lack of uniformity across various certification schemes and customer requirements. This lack of harmonization leads to inefficiencies and sometimes confusion, complicating certification efforts and operational processes for organizations that must navigate a complex web of standards, each with its unique framework and expectations. This often requires organizations to expend additional resources to manage compliance across different schemes, which could be more effectively used to enhance food safety measures. One certification accepted everywhere has become a Holy Grail.

1.5 Governance and Integrity Programs

The integrity programs managed by accreditation bodies, certification bodies, and program owners often work in silos and do not always secure comprehensive oversight. This deficiency in governance leads to a dilution of audit quality and raises concerns about the effectiveness of the certification processes. Furthermore, the relative ease with which certifications might be obtained in some cases, and locations dilute these certifications' perceived value and reliability in genuinely ensuring food safety. There is also a concern about the robustness and capability of the Accreditation Body processes.

1.6 Auditors

Auditors face significant challenges balancing the need to meet quantitative key performance indicators with the need to deliver qualitative value through their audits. The complexity and breadth of requirements under standards or schemes may exceed what will be thoroughly reviewed within the constraints of standard audit durations, challenging auditors to cover all necessary areas comprehensively. Additionally, there is a significant training gap, particularly in developing soft skills such as effective communication. These are crucial for conducting value-added audits but are often overlooked throughout the life cycle of auditors, including professional development programs.

2. Understanding of FSMS, Roles, and Responsibilities, and the Value of Audits

This theme consolidates all the issues and potential root causes in how organizations understand the value of the implementation of Food Safety Management Systems, the roles and responsibilities of different players, and the value generated through audits.

2.1 Certification Goals

Achieving certification is often seen as a compliance checkbox and a license to operate rather than an opportunity for actual performance improvement within organizations. Additionally, having certification as the primary goal results in less transparency as the operations perceive they will be penalized for the gaps that surface. This perspective not only diminishes potential learning and process development but also fosters a culture where the certificate is valued over the practices it represents. Organizations need to shift their focus from simply achieving certification to leveraging the audit process as a tool for deep learning and continuous improvement.

2.2 Perceived Value and ROI of Audits

The perceived value and return on investment from audits are often underestimated and seen as a necessary evil rather than a value-adding process. Some stakeholders might view audits as costly and time-consuming, with an unclear benefit to the business's bottom line.

There is a clear need to redefine audits as essential investments in business sustainability, leading to enhanced operational efficiencies, reduced risk of food safety issues, and improved product quality—all contributing to long-term cost savings and brand protection.

2.3 Roles and Responsibilities in Continuous Improvement

There is a lack of comprehension of the different roles and responsibilities that contribute to the continuous improvement of food operators. There is often insufficient dialogue between auditors and auditees about the findings and improvement areas that arise during audits, primarily due to time constraints and a focus on compliance rather than on fostering a culture of improvement. Strengthening this aspect requires a more collaborative approach to audits, where auditees and auditors engage in meaningful discussions that lead to actionable insights. The potential of auditors acting as trusted advisors is often missed due to the current definition of the impartiality aspect of audits.

> "Organizations need to shift their focus from simply achieving certification to leveraging the audit process as a tool for deep learning and continuous improvement

2.4 Internal Audits

Internal audits are frequently undervalued and not integrated as a core part of food safety management, often seen merely as a compliance requirement. Their potential to provide invaluable insight for a robust business review is overlooked in most cases. This underutilization results in missed opportunities to proactively identify and mitigate risks. Emphasizing the role of internal audits as essential mechanisms for continuous feedback and business review will transform them from bureaucratic necessities to pivotal elements of quality assurance and operational excellence.

2.5 Resistance to Change

The certification ecosystem is well-established and still growing. Therefore, some actors could be reluctant to change. Certification Bodies and Accreditation Bodies might be overwhelmed by the high number of changes driven by a large number of stakeholders. Consequently, they have to apply new requirements, sometimes blindly. For auditees, changes are often interpreted as extra costs (time and resources), and they may not see the actual value of a change. This situation creates a culture favoring the certification as a business while overlooking continuous improvement.

2.6 Digitalization and Return on Investment

Digitalization in food safety auditing is progressing slowly, hindered by a lack of understanding of its benefits. Several obstacles impede the full adoption of digital technologies. Technical limitations, such as the lack of compatibility between different systems and the need for costly, customized digital tools, especially burden small and medium-sized organizations. The food supply chain and auditing activities are so varied that one-size-fits-all solutions are often ineffective, necessitating expensive bespoke tools that many small to medium-sized food operators find prohibitive.

Moreover, a lack of confidence in digital platforms often stems from fears about the integrity and confidentiality of data. To overcome this barrier, it is crucial to demonstrate the reliability of digital systems and convince industry leaders of the benefits, such as improved efficiency. This task is complicated by the fact that food safety teams, who often recognize the potential of digital tools, may not have sufficient influence within their organizations to drive change. Not all organizations in the food industry are at the same level of readiness or willingness to adopt new technologies.

3. Implementation of Schemes and Audit Programs

This theme consolidates all the issues and potential root causes, addressing improvement opportunities linked to the implementation of schemes and audit programs. It has two sub-themes, further classifying the possible root causes under the business model (structure) and resources (support).

3.1 Business Model

3.1.1 Competition Among Scheme Owners

The competition among scheme owners to be seen as the most reputable might undermine the collaborative potential necessary for widespread improvements in food safety. This rivalry often leads to a proliferation of requirements, sometimes beyond the scope, that differentiate schemes more than enhance food safety. This environment creates confusion among food operators, who must navigate multiple standards. It leads to a checkbox mentality where the essence of proper food safety practices is lost in the competition.

3.1.2 Detrimental Profit-Driven Practices

There is a potential risk for some certification bodies compromising the quality and thoroughness of the audits, given their limited resources, by focusing solely on increasing the volume of audits as a primary revenue source. This practice results in auditors being pressured to complete audits, which may not allow sufficient time to identify and address all potential food safety issues adequately.

3.1.3 Conflict of Interest in the Audit Process

A significant concern in food safety auditing is the potential conflict of interest when the auditee is the customer of the Certification Body. This relationship might sometimes lead to less rigorous audits, as Certification Bodies may fear losing business if they are too critical. This becomes particularly relevant in the context of third-party auditing.

3.1.4 Economic Impact Assessment

The economic ramifications of adopting diverse food safety schemes are not systematically analyzed, resulting in a significant gap in understanding the actual costs and benefits associated with duplicated certifications. This oversight contributes to an unchecked proliferation of requirements, complicating certification efforts without clear evidence of their efficacy or value. This lack of precise economic data hinders strategic planning, resource optimization, and the multiple certifications' actual value.

3.2 Resources

3.2.1 Auditor Turnover and Scarcity

The food safety industry faces challenges with high auditor turnover and a general scarcity of qualified auditors. The demand for audits is increasing as a result of continuous changes to standards, which not only introduce more requirements but also necessitate more frequent audits. such as the internal ones.

This evolving nature of standards complicates the situation further, with Certification Bodies (CBs) struggling to manage auditors who must specialize in increasingly specific subcategories. There is also a noticeable lack of alignment among schemes concerning product categories, which adds another layer of complexity to the auditing process. The auditors' low appetite to stay in the profession exacerbates the situation due to perceived inadequate compensation and career development opportunities offered.

3.2.2 Capacity Building and Training

The frequent modifications to food safety standards pose a significant challenge for certification bodies, forcing them to allocate finite resources to auditors' ongoing training and capacity building. This constraint may lead to audits that fail to fully capture the complexities and nuances of sophisticated food safety systems. As a result, the quality and effectiveness of these audits might be compromised, potentially overlooking critical safety aspects. Additionally, the financial burden of continuous professional development typically falls on freelance auditors, who must cover the costs of their own training and skill enhancement. This financial strain not only exacerbates the existing scarcity of qualified auditors but also deters skilled professionals from entering or remaining in the field. Consequently, this dynamic contributes to a cycle where the lack of comprehensive training leads to less effective audits, which in turn may fail to ensure the rigorous enforcement of food safety standards.

3.2.3 Experience and Competence of Auditors

Finding experienced auditors is not always possible. While fresh auditors bring a new perspective and thoroughness to the process, their lack of experience sometimes results in missed nuances or misunderstandings. Auditors' capability might not be challenged unless the audit's outcome is a failure. This may result in less capable auditors staying in the pool, ultimately diminishing the value generated by audits.

3.2.4 Compensation and Workload

The Food Safety Certification market is intricately linked to the dynamics between CBs, auditors, and the companies they service. CBs strive to be cost-effective in attracting customers in an industry known for its slim margins. This economic pressure is compounded by companies needing multiple certifications to meet diverse customer requirements, which intensifies the demand for audits without a corresponding increase in the number of auditors. Questions arise about who truly needs these certifications — whether it's small to medium enterprises or large retailers — and, ultimately, who bears the financial burden of these certifications. Meanwhile, the role of a consultant in the industry is often seen as more lucrative and balanced compared to that of an auditor. This perception stems from consultants being viewed as deserving higher remuneration, facing fewer administrative tasks, and enjoying a better work-life balance.

3.2.5 Adoption of Digital Tools in Developing Countries

The integration of technology in the food industry faces several substantial challenges that hinder its adoption, particularly in remote and developing regions. Food production areas, often situated far from populated centers, typically lack adequate internet connectivity and technological infrastructure, complicating the implementation of advanced digital tools. Moreover, the absence of standardized data frameworks is a significant barrier.

In developing countries, the shortage of qualified personnel to implement technology-driven audits is acute. Even in nations with abundant qualified human resources, financial constraints prevent significant investment in digital tools. Additionally, a prevalent mistrust of technology exists within certain regions and industries. Many companies are reluctant to digitalize sensitive and confidential data due to fears of security breaches and misuse.

"The absence of standardized data frameworks is a significant barrier.

SUGGESTED SOLUTIONS / RECOMMENDATIONS / PATHS TO EXPLORE

The classification we provided above was instrumental in guiding the Think Tank participants to discuss further and agree on the potential solutions / recommendations and paths to explore. The sessions populated an important amount of those, which were then categorized under three main categories of thematic actions:

1. Governance: strengthening the frameworks for requirements and management to provide robust support for food safety auditing processes.

2. Requirements and Reporting: improving standards and protocols to boost value, transparency, and accountability within food safety auditing practices.

3. Profession: advancing auditing through comprehensive training programs, rigorous certification processes, and continuous professional development opportunities.

surrounded by the two specific transversal actions:

1. Digital Transformation: harnessing the power of digital tools and technologies to enhance the efficiency, precision, and scope of auditing practices.

2. Mindset: fostering an enduring commitment to food safety improvement across all levels of an organization, encouraging a universally adopted culture that prioritizes these values through auditing.

The figure below (see figure 4) demonstrates the framework:

Figure 4: The proposed model for suggested solutions/recommendations/paths to explore

In this model, Mindset plays a vital role in providing a shell to the entire structure, holding it together.

The figure below (see figure 5) shows the distribution of the potential solutions/recommendations and paths to explore.

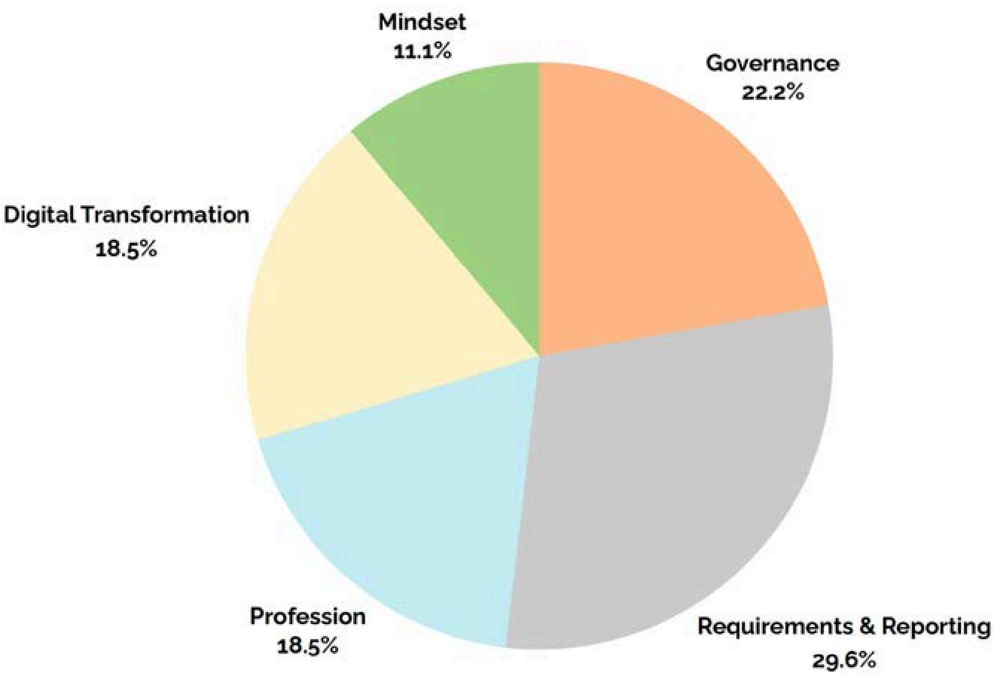


Figure 5: Distribution of suggested solutions/recommendations/paths to explore

Governance

1. Evaluate the cost of change and multiple certifications:

This recommendation proposes a thorough analysis and quantification of the costs associated with implementing changes in food safety standards and maintaining multiple certifications simultaneously. Understanding these costs would help all stakeholders better evaluate the financial benefits or burdens, potentially identifying opportunities to consolidate or alter their approaches to improve efficiency and decrease complexity and costs.

2. Strengthening the GFSI's transparency and inclusiveness of stakeholders' needs:

Enhancing the transparency of the Global Food Safety Initiative (GFSI) processes and actively involving stakeholders might improve the relevance, acceptance, and implementation of GFSI schemes.

By actively searching for methods to strengthen all possible channels for regular dialogue and feedback, GFSI would ensure that its guidelines and updates more accurately reflect the practical needs and challenges faced by various industry participants, from producers to retailers. This improvement in communication is particularly vital as the current approach reflects more of a Western countries' governance model. There is a need to move to a global governance, where all geographies are equally represented.

3. Revisit integrity programs to add a risk-based approach and continuous improvement:

This involves restructuring existing integrity programs to incorporate a risk-based approach and principles of continuous improvement while avoiding the silo approach. Such programs would prioritize areas of highest risk for more frequent and detailed scrutiny while fostering an environment where food safety processes are continuously evaluated and enhanced. This, in return, will result in more robust and strict programs being able to check the health of the system and intervene when needed.

4. Implicate CPOs in setting GFSI requirements for auditors:

Engaging Certification Program Owners (CPOs) more inclusively in defining the competencies and requirements for auditors will ensure that they are better prepared to assess compliance with industry-specific challenges and standards. This collaborative approach will lead to more effective audits that are attuned to the industry's actual needs.

5. Manage a set of requirements and changes:

This solution calls for better management and control over the frequent changes to food safety standards and requirements. By enhancing the current process for updating and disseminating new requirements, stakeholders will ensure that changes are both necessary and effectively communicated to all affected parties. This process should include stakeholder feedback to assess the impact of changes and ensure that they do not inadvertently increase complexity or reduce clarity in compliance expectations. Conducting impact assessments before implementing new requirements will help predict the effects of such changes and ensure that new requirements do not inadvertently create new challenges or disproportionately burden specific industry segments.

6. Improve stakeholder management protocols:

Enhancing protocols for managing relationships and communications with stakeholders will lead to more effective and inclusive governance of food safety standards. This involves creating formal mechanisms for ongoing dialogue, feedback, and collaboration with all groups involved in food safety — from regulators and industry bodies to individual businesses and consumer representatives. Improved stakeholder management will help ensure that the governance of food safety standards is transparent, responsive, and aligned with the needs and concerns of all parties.

Requirements and Reporting:

1. Make shorter lists of risk-based requirements:

Streamlining the list of compliance requirements to focus on those that address significant risks will simplify the auditing process for businesses. This approach emphasizes critical controls over exhaustive checklists, potentially increasing the effectiveness of food safety measures and reducing the current complexities for all parties involved.

2. Organize a round table to discuss Food Safety Benchmarking Requirements:

The food safety community will foster greater consensus on benchmarking requirements by convening a roundtable discussion involving diverse stakeholders, including regulators, industry experts, and consumer groups representing businesses with different types, scales, scopes, and regions.

This collaborative setting allows for sharing insights and challenges, leading to more balanced and practical food safety requirements while helping to eliminate disparities that will lead to confusion and uneven practices. A unified approach ensures that all companies, regardless of size or market reach, adhere to the same high standards, facilitating fair competition and consistent safety outcomes. This will also support the implementation of a global governance model rather than a Western one.

3. Adopt a Risk-based approach in Food Safety auditing:

Transitioning to a risk-based auditing approach allows organizations to allocate resources more effectively, focusing efforts on areas that pose the greatest threat to food safety. This method not only optimizes the use of resources but also enhances the proactive identification and management of potential risks. It is important to note that this will only happen when the requirements are also formulated around a risk-based model.

4. Redefine the purpose of the reporting requirement:

This solution involves a detailed analysis of each stakeholder's specific interests and needs when it comes to audit reports. By understanding what each party finds most valuable, the audit process will be tailored to emphasize those aspects, enhancing the relevance and utility of the information provided. For instance, while regulatory bodies might focus on compliance details, food operators value insights into operational improvements, and retailers might be most concerned with the overall food safety system structure.

Streamlining reports to cater to these specific interests will make them more actionable and valuable. This clarity will reduce unnecessary reporting burdens on businesses and focus efforts on gathering data that truly contribute to improving food safety practices. Clarifying the objectives of required reporting will help ensure that the information collected is valuable and relevant.

5. Review Auditor qualification and auditing process:

This solution calls for a comprehensive review and possible overhaul of the qualifications required for auditors and the processes they follow during audits. Ensuring that auditors are technically competent and well-versed in the latest industry practices and soft skills, such as communication and analytical thinking, will greatly enhance the quality of audits. Additionally, refining the auditing process to be more flexible, allowing auditors to adapt their approach based on each audit's specific context and risks, will lead to more meaningful and effective outcomes.

Profession:

1. Promoting training programs linking Universities, the Food Industry, and Certification Bodies:

Developing integrated training programs that connect academic institutions with the food industry and certification bodies will create pathways for knowledge exchange and professional development. These programs will equip future food safety professionals with a comprehensive understanding of industry challenges and best practices while opening a channel to learn about the profession in the early years of their careers.

2. Promote and share the auditing function with others:

By raising awareness and promoting the value of the auditing profession, the industry will attract more qualified candidates.

Highlighting auditors' critical role in ensuring public health and safety will enhance the profession's appeal and draw in individuals committed to making a difference. Furthermore, supporting auditor candidates through mentoring, training, and financial assistance will help develop a more robust pool of qualified auditors. This support facilitates auditors' professional growth and ensure a high standard of auditing practice across the industry.

3. Focus on soft skills throughout the life-cycle of auditors:

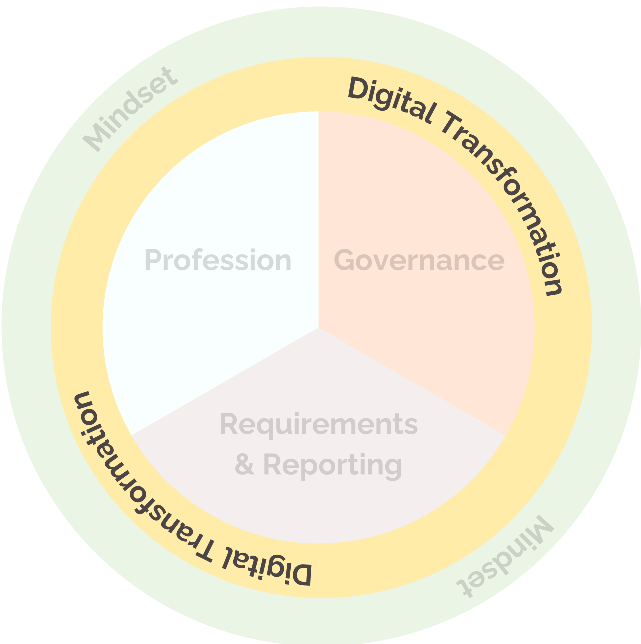
In today's business environment, auditors are technical experts, data analysts, communicators, and collaborators. Soft skills have become increasingly important due to the complex nature of audits and the diverse stakeholders involved. Prioritizing soft skills such as communication, critical thinking, and conflict management throughout the entire lifecycle of auditors, including recruitment, will significantly enhance their effectiveness. These skills are essential for engaging with auditees, understanding the nuances of different operations, and effectively communicating audit findings and recommendations.

4. Create a protocol between the Food industry and Certification Bodies to encourage moves:

This solution suggests establishing a formal protocol to foster stronger collaboration and personnel exchange between the food industry and certification bodies.

By facilitating this interaction, the protocol would allow industry professionals to gain firsthand experience in auditing processes and vice versa. This mutual exchange aims to enhance understanding and improve the practical application of food safety standards across the board. It would help professionals from both sides develop a deeper insight into the challenges and requirements of each other's roles, leading to more effective audits and better compliance practices within manufacturing operations. Moreover, this cooperation will serve as a professional development tool, enriching the skill sets of both auditors and industry professionals, thereby strengthening the overall food safety culture.

Digital Transformation:



1. Automating audit reports to save auditing time:

Implementing automated systems for generating audit reports will drastically reduce the administrative load on auditors, allowing them to dedicate more time to on-site inspections and in-depth analysis. Automation will improve reports' accuracy and timeliness while freeing auditors to focus on critical food safety assessments.

2. Promoting the use of new technologies:

Encouraging the adoption of innovative technologies within the food safety auditing process will significantly enhance the efficiency and effectiveness of audits. Technologies such as blockchain for traceability, AI for risk analysis, and IoT for real-time monitoring will provide auditors with powerful tools to better assess compliance and safety standards. Advocating for technological integration helps keep the food safety industry at the forefront of scientific and technological advancements, ensuring that safety measures are as accurate and up-to-date as possible. Developing specialized tools that leverage new technologies will address specific challenges in food safety auditing. For example, creating software that integrates AI to predict high-risk areas or developing apps that streamline the collection and analysis of audit data will enhance auditors' capabilities and improve audits' overall quality and reliability.

3. Benchmark other industries to understand their digitalization journey:

Looking at digital transformation successes and challenges in industries such as aerospace or automotive will provide valuable lessons for the food industry. By benchmarking against these industries, food safety stakeholders will have the opportunity to identify best practices and potential pitfalls in digitalization, adapting these insights to the specific needs and contexts of food safety auditing.

4. Standardize data format and the way to report it:

Establishing standardized data collection and reporting formats will significantly improve audit information's comparability and usability across the food industry. Standardization allows for more effective data sharing and analysis, leading to better-informed decisions about food safety practices and policies.

Mindset

1. Apply a back-to-basics approach to get aligned with all stakeholders on the purpose of audits:

This solution calls for a fundamental reassessment of what audits are intended to achieve, aligning all stakeholders—from auditors to auditees—around a common understanding of the objectives of food safety audits.

Emphasizing the foundational goals of audits will help shift the focus from compliance to improvement, fostering a more cooperative and proactive approach to managing food safety.

2. Redefine and promote the value of audits (1st, 2nd, and 3rd party) beyond compliance:

It is crucial to change the perception of audits from a compliance obligation to a valuable tool for continuous improvement. This involves communicating the benefits of audits in meeting requirements and helping businesses improve their processes, enhance safety, and ultimately increase customer trust and satisfaction.

3. Define how Food Safety Culture works in managing food safety and how it shall be assessed:

Food safety culture has been an essential element of food safety auditing. However, there is a need to harmonize the methodology to implement and assess culture's maturity. Organizations are often unclear about interpreting the requirements, and auditors lack the capabilities to complete a comprehensive assessment.

CONCLUSION

The Think Tank on the Future of Food Safety Auditing was established in response to an urgent need for innovation in food safety auditing. The initiative aimed to elevate governance, processes, and practices. The Think Tank concluded its activities, marking a significant milestone in the quest for a safer food supply chain.

Throughout its tenure, the Think Tank brought together professionals from diverse backgrounds and countries, contributing various perspectives to the discourse. This global assembly conducted deep analyses and proposed a series of strategic recommendations that have laid the groundwork for transformative changes in food safety auditing.

The Think Tank's methodology was systematic and inclusive, designed to tackle the core challenges in food safety auditing. The proposed solutions and recommendations were divided into key themes such as governance, requirements and reporting, profession, digital transformation, and mindset to ensure a structured and practical approach.

Initially and in the late eighties, food safety audits were uncoordinated and varied, designed primarily for individual company assurances rather than focusing on broader public health outcomes.

This period needed more standardization, as it was triggering inefficiencies and inconsistencies in food safety enforcement across various regions and companies.

The establishment of the Global Food Safety Initiative (GFSI) in 2000 was a response to a series of global food safety crises. GFSI aimed to rebuild consumer trust and foster a unified approach to food safety standards by aligning stakeholders under a joint mission. This initiative emphasized a science and risk-based approach, which ensured that practices and protocols effectively mitigated food safety hazards. Additionally, GFSI highlighted the importance of objective evaluations for building trust, streamlined processes to reduce audit redundancy, availability of public information to enhance industry knowledge, and promotion of collaboration across all industry sectors.

Despite these advancements, the Think Tank uncovered ongoing challenges in food safety audits. One significant issue is the persistent focus on compliance, which often overshadows the essential need for continuous practice improvement. The complexity of food safety standards has increased, leading to a landscape where changes in requirements are frequent and demanding, placing considerable strain on auditees and certification bodies.

The Think Tank further explored issues such as the non-harmonization of audit schemes, which leads to inefficiencies, and concerns regarding the integrity and effectiveness of governance in audit programs. Auditors face numerous challenges, including balancing quantitative key performance indicators with qualitative audit outcomes, a lack of training in essential soft skills, and high turnover rates, which compromise the depth and effectiveness of audits.

The Think Tank's discussions culminated in several proposed solutions addressing these challenges. These include enhancing the governance of food safety standards, improving the management of frequent changes in requirements, and advocating for a shift in mindset towards viewing audits as valuable tools for continuous improvement rather than mere compliance checks. Additionally, there is a strong push for digital transformation in auditing to enhance efficiency, accuracy, and transparency.

Significant challenges remain while notable progress has been made in the standardization and harmonization of food safety audits. The Think Tank underscored the need for ongoing improvements in governance, stakeholder engagement, and technology integration to ensure that food safety auditing is effective and adaptive to the evolving landscape of global food production and safety standards.

in the ever-evolving landscape of food production and service, the function of a food safety auditor is both indispensable and intriguing.

As the global food industry grows and transforms, food safety auditors face increasingly dynamic opportunities and challenges. This profession transcends the mere notion of employment; it is an integral part of the worldwide food sector. Serving as a food safety auditor involves a unique mix of obstacles and rewards, positioning it as an outstanding career path for individuals dedicated to positively impacting public health and safety. With continuous innovations and expansions in food production and technology, the significance and scope of food safety auditors' roles are set to enhance, presenting numerous prospects for those prepared to navigate it's evolving landscape.

The Think Tank's findings are expected to influence policies and practices significantly, fostering a proactive and preventative approach to food safety auditing. It's work has established a solid foundation for future enhancements in food safety auditing. By continuing the collaborative efforts and commitment to excellence, the initiative envisions a future where food safety auditing is integrated as a shared value across the food supply chain, ensuring high consumer protection and trust standards.

The focus on implementing the recommendations and maintaining an ongoing dialogue among stakeholders will be crucial in achieving these goals. Together, the members of the Think Tank are dedicated to creating a legacy of safer food for generations to come.

A CALL TO ACTION

Based on the vital insights and strategic recommendations from the Think Tank on the Future of Food Safety Auditing, the food and beverage industry must embrace and fast-track transformative changes in food safety auditing practices. We find ourselves at a pivotal moment where adopting these improvements is not merely advisable—it's imperative.

Industry leaders are called upon to elevate safety protocols beyond simple compliance. It is essential to view food safety audits as evolving tools for continuous enhancement, not just as checklists for compliance. Integrating digital technologies will boost audits' efficiency, accuracy, and transparency. The food safety auditing should shift from backward-looking to forward-looking.

We urge companies and their stakeholders to work together to improve the governance of food safety auditing. This includes striving to harmonize audit schemes to eliminate inefficiencies and redundancies and ensure that protocols are uniformly stringent and effective across all regions.

The food and beverage industry must cultivate an environment of open collaboration and knowledge sharing among all stakeholders. This will enable faster dissemination of best practices, innovative solutions, and collective responses to emerging food safety challenges.

There is a pressing need to enhance the training and development of food safety auditors.

> "The food and beverage industry must cultivate an environment of open collaboration and knowledge sharing among all stakeholders.

This includes the technical aspects of auditing and soft skills crucial for effective communication and problem-solving. Promoting the auditing profession as a powerful career step is a clear need.

We would like to call on academia to spend more resources on researching food safety auditing. This will help the industry and stakeholders identify improvement areas and opportunities and shape the future of the discipline.

We call for active and continuous engagement from all industry stakeholders, including producers, distributors, and retailers. By involving diverse perspectives, we can ensure that the food safety auditing processes are comprehensive and inclusive.

Finally, the industry must shift from a reactive to a proactive stance on food safety. By anticipating potential issues and implementing preventative measures, we can safeguard public health and bolster consumer trust.

The journey to safer food for all requires dedication, innovation, and a shared commitment to excellence. We invite all food and beverage industry members to join us in this pivotal movement, implementing the Think Tank's recommendations to create a legacy of improved food safety that will benefit future generations.

Together, let's redefine the standards of food safety auditing across our global food supply chain.

ANNEXES

Annex 1. Survey Questions

The questions used to complete the SWOT analysis are provided below:

Strengths:

1. What are the main strengths in terms of strategies, policies, and processes?
2. What are the main strengths in terms of capabilities and resources?
3. What are the main strengths in terms of communication and collaboration?

Weaknesses:

1. What are the main weaknesses in terms of strategies, policies, and processes?
2. What are the main weaknesses in terms of capabilities and resources?
3. What are the main weaknesses in terms of communication and collaboration?

Opportunities:

1. What are the main opportunities that, when deployed, will support food safety auditing to go the extra mile?

Threats:

1. What are the main threats preventing food safety auditing go the extra mile?

Annex 2. Summary of SWOT Analysis

The overall summary of insights per the questions is listed below.

Strengths:

a. Strategies, Policies, and processes:

- It provides a structure for verifying compliance and is based on science.
- It prevents failure and promotes continuous improvement.
- It improves food safety culture.
- Variety lets companies choose what works best for them.
- First-party auditing leverages knowledge, resulting in continuous improvement.
- Second-party auditing is adaptable and unbiased.
- Through an objective approach, third-party auditing provides trust and external recognition.
- The risk-based approach allows for greater focus where it is required.
- The standardized approach achieved through the efforts of GFSI.
- The existence of an accreditation process for certification bodies.

b. Capabilities and Resources:

- It transforms the food manufacturing environment through alignment and engagement.
- Companies with significant internal audit functions and vendor audit experience are impactful.
- The publicly available information to assist auditors (e.g., guidance documents).
- The goodwill and good intention among the food safety community to support one another.
- The knowledge of auditors due to the approval process (3rd party), time efficiency due to shorter checklists (2nd party), and understanding of processes (1st party).
- The auditor's capability gained through experience, expertise, training, and professional development.
- The protocols and audit methodologies.
- The audit tools and technology.
- The qualification rules established by certification schemes.

c. Communication and Collaboration:

- It can act as a catalyst or multiplier of food safety culture enhancement.
- It has seen increased collaboration and partnerships among various stakeholders.
- Standard owners, collaboration with GFSI oversight, and collaboration of leading corporations imposing their requirements on all suppliers (2nd-party auditing).
- Second and third-party providers are communicating better than they have been.
- The working groups for Certification Bodies and Accreditation Bodies.
- The advantages of the remote option.
- The 3rd-party entities ensuring no conflict of interest.
- No emotions involved, clear communication (3rd and 2nd-party), and very good collaboration (1st party).
- Auditors have a strong understanding of human engagement and relationship management.
- The various existing calibration efforts within certification bodies.
- The availability of free or paid webinars to deliver food safety updates.

Weaknesses:

a. Strategies, Policies, and Processes

- Audits only occur due to buyer demand, and buyers impose their preferred plan.
- The disregard for the significance and value of audits and the lack of credibility given to auditors. The results of third-party audits do not reflect reality.
- A lack of policy, driven by a desire for quick fixes and a corresponding lack of fit-for-purpose strategies and processes.
- Complicated online reporting tools (3rd-party), audit value is not always given due to a lack of harmonization (2nd-party), a wide range of methods, and documentation with no precise minimum requirements (1st-party).
- The significant disconnect between the different disciplines in strategy, policy, and process, both developmental and operational.
- Various programs and strategies appear to be disconnected from one another throughout the supply chain.
- Food safety audits require significant resources, including qualified auditors, time, and financial investments.
- Some food safety auditing programs prioritize compliance over cultivating a culture of continuous improvement.
- Policies and procedures are very prescriptive.
- A blanket approach to standardize the approach - i.e., one size fits all without regard for various key factors.

b. Capabilities and Resources:

- Training and qualification of auditors and personnel.
- Inadequate food safety knowledge/leadership.
- Lack of sufficient expertise among auditors and limited industry-specific knowledge.
- Resources scarcity to implement food safety auditing programs.
- Availability of competent auditors in terms of time and location.
- Audit time is not enough for a proper assessment.
- Auditing becomes challenging, especially in first and second-party audits when management believes implementing FSMS is costly and burdensome.
- The qualification process and continuous evaluation of auditors are weak.
- Auditors are taught to audit, not to present their findings as a case for

continuous improvement.

- The auditors' approval process is too narrow and focused on repeated steps.

c. Communication and Collaboration:

- Audits can be carried out and recorded with just the "usual suspects," namely Quality Managers and Auditors.
- Inadequate engagement with regulators.
- Auditors are not at liberty to consult, but the entire auditing process is meant to consult a company by finding gaps and prompting corrective actions.
- Scoring is assigned to tell a company's business partners how "good" or "bad" a company is, which directly affects said company's business relationships. A culture is created to protect the business, which negates the purpose of an audit.
- Companies go for recognition, but 3rd party certificates seem easy to get, and there is nothing to compare one certified company to the other.
- Limited supplier involvement in the audit process beyond being assessed.
- Collaboration needs to start at the top. For example, GFSI may write a new standard, but each scheme interprets what that means differently.
- When translating laws, standards, guideline documents, etc., the main message is often lost.

Opportunities:

- Raise awareness about the importance and value of audits.
- Improve auditor competence and calibration (and re-calibration).
- Increase the use of risk-based auditing and remote audit techniques.
- Change perception: if audits are perceived as practical training, then participation and ownership can be strengthened, and Food Safety Culture can be improved.
- One database to access certification status.
- Collaborating more with ESGs, sustainability, and OH&S throughout this scope will bring more attention and, ultimately, funding and potentially elevate food safety as a core function beyond compliance.
- Learning from other companies, even non-food companies.
- Using technology to analyze data and metanalysis to manage processes.
- Benchmark auditors of various certification schemes to make it easier to be audited or audit a different scheme than one used to.
- A good database to support the auditor in real-time during the audit on technical issues.
- More dynamic, objective, and easy-to-fill reports that could be completed during the audit without the auditor spending hours making the final report after the audit.
- Training to help internal teams understand that they are not 'finding things wrong' but improving the process and the company.
- Relevant education should be available as soon as at the primary school level to allow future resources to gain fundamental understanding and interest that one can build on during one's educational life.

Threats:

- Auditor shortage.
- Little time to perform an audit.
- Unattractive pay.
- The industry's resistance to change.
- There must be some oversight on how audits are done and ways to govern an audit.
- Auditors with insufficient professional capacity or even non-functioning work relationships, competing agendas,

a lack of priorities, short-term visions, and, in general, an insecure and unstable working and financial environment.

- Lack of knowledge and superficial auditing can mean things are undetected.
- The main issue in an audit is documentation. You can no longer concentrate on the goal of food safety. It will be hidden in the background. We need to reconsider our goal.
- One of the obstacles to real and fair auditing is that auditing itself can be seen and used as a means of punishment.
- Not embracing new technologies like AI, data analytics, and machine learning. Acceptance that new technologies will change food safety auditing will allow the latest technologies to develop with the same science-based approach as current learning from food safety auditing history and experience.
- There is a need for education and expert consultation in areas related to sustainability and social responsibility to ensure that programs encompass standards that cover these areas in one audit.
- The food industry faces constantly evolving risks, including new contaminants, emerging pathogens, and changing production and distribution practices. Weaknesses can occur from regulatory gaps and inconsistencies in food safety auditing.
- Constant updates of legislation or research related to contaminants.
- Conducting non-behavior-based audits Lack of acceptance or understanding by senior leaders that an internal audit program can be used as a continuous improvement program.
- Lack of appreciation for their commitments, a culture of entitlement across the CBs / ABs, commercialization of the audit process as a whole to become a money-making machine rather than a tool for enforcement of food safety rules, thus safe products.
- Risk of losing competencies due to carrier break for personal reasons and a very long process for re-approval, including witnessing and auditing skills, which can be perceived as insulting.

Annex 3. Raw Data

The list of all raw data collected through the survey is provided below.

Strengths:

a. Strategies, Policies, and Processes:

- Long-standing experience with many years of robust but diverse qualification processes.
- First-Party Audits: These are conducted internally and provide an opportunity for the company to monitor its own operations. The main strengths are a deep familiarity with internal processes, the ability to drive continual improvements, and the capacity to rectify issues promptly. Second-Party Audits: These involve audits of suppliers or vendors. Their primary strength lies in controlling and ensuring quality and safety throughout the supply chain, which plays a significant role in risk mitigation. Third-Party Audits: Conducted by external, independent bodies, these audits add credibility and trust to the company's food safety measures. They help assure regulatory compliance and offer companies access to external expertise. Strategies, Policies, and Processes: A risk-based approach is often adopted in food safety audits. Zero-tolerance policies for critical food safety issues and investments in employee training ensure adherence to food safety standards. The audit process typically follows a continuous improvement cycle: conducting the audit, identifying non-compliances, implementing improvements, verifying their effectiveness, and preparing for the next audit. These strategies, policies, and processes help ensure the safety and quality of food products, protect consumers, maintain a company's reputation, and prevent costly recalls and legal complications.
- An independent baseline assessment of performance, risk areas and opportunities for improvement.
- Food safety audits assist in the validation of the companies' food safety culture. It is a way to confirm what the companies' own goals and policies are and evaluate how these are implemented. It serves as a tool for companies to benchmark where they are in their food safety culture at a specific point in time.
- The fact that unannounced audits have become a general approach has created the need for businesses to be ready for the audits continuously.

This ensures that each part in the supply chain always considers that they are serving the food safety system in their daily routine processes. I think that remote audits, which have increased especially during the pandemic process, have made a great contribution to the system. Although they are not as effective as on-site audits, serious risks can be detected, and their effectiveness has reached a point that was not expected.

- Provide trust, transparency, and oversight by having an independent party ready to conduct the audit at any time.
- The main strengths derive from unconditionary support of the Food Safety Culture schemes. Enhancing Food Safety Culture nurtures open and legit audit realization, participation and reporting to all engaged (or to be engaged) members of Staff. Keeping close to the formation, managing and delivering of Action Plans, create - other than Food Safety results - Trust in the mechanisms of participatory and responsible Food Safety Auditing. Strengths derive from job function orientation and Audit interpretation as well. Complementary auditing between different departments creates "diffusion" of food safety "ownership" and formation of precedents. Precedents create further visionary considerations built upon an infrastructure of real-world solution schemes and real-life guidance.
- Standardization via the GFSI effort.
- 3rd party FSA have the most objective approach (clear checklist, trained and independent auditors, accreditation, approval of reports, sanction catalogue). 2nd party FSA have the strength to be very flexible (no accredited scheme). 1st party audit has the strength of internal knowledge which can lead to improvement.
- The main strengths in any audit, is providing structure to verify compliance. Internal audits can be the biggest driving force in an organization however it rarely is, due to Issues with being independent and impartial. 2nd party schemes have a strong ownership interlinking corporate requirements and using the skill of professional external auditors, giving complete integrity and unbiased auditing. 3rd party - certification audits provide the highest level of verification of compliance to the requirements, as long as clients don't just use them as a tick in the box exercise and use them to continuously improve.
- Food safety auditing is science based, but blended with a management system approach which allows audit outcomes to be more broadly understood which ultimately facilitates improvement.
- I think that there are a variety of programs available each with their own strengths and weaknesses. Variety allows for a company to choose a program that works best for their own operation.
- Most companies go for 3rd party certifications to demonstrate food safety. This helps with external recognition.
- Main strengths include use of standards and quality systems; use of internal and external benchmarks; surprise audits; virtual inspections; qualified auditors; food safety culture; Standardization: The establishment of internationally recognized standards such as the ISO 22000 and the Global Food Safety Initiative (GFSI) benchmarks has led to increased consistency and harmonization in food safety auditing practices.

Risk-based approach: Many food safety auditing programs have shifted towards a risk-based approach, focusing resources and efforts on areas of higher risk. Transparency and accountability: Auditing programs have placed greater emphasis on transparency and accountability. With the increasing demand for traceability and product information, auditors play a vital role in verifying and validating claims made by suppliers regarding their food safety practices. Technological advancements: The integration of technology has significantly enhanced food safety auditing processes. Training and competency development: There has been a growing emphasis on training and competency development for auditors.

- The main strengths in these themes are Certification schemes with well-structured and clearly protected rules; Existence of an accreditation process for certification bodies.
- When completed well by competent personnel, all food safety and quality programs are analyzed, and potential gaps are recognized. A well-managed and operated audit program can be used to prevent failures. These strengths are what is driving improvements in the developing programs. As practitioners gain skills, the programs improve, the competency improves, and the program can be used as a preventive program as part of a TQM program.
- Standardization through international standards and recommendations such ISO Standards, ISO technical specifications, GFSI recognized Standards, corporation Standards (i.e., KFC, McDonalds, Walmart), food law both international as local.
- Main strengths include use of standards and quality systems, internal and external benchmarks, surprise audits, virtual inspections, qualified auditors, and a focus on food safety culture. Standardization, such as ISO 22000 and GFSI benchmarks, has increased consistency in auditing practices. Risk-based approaches prioritize higher-risk areas. Transparency and accountability have become more prominent, verifying suppliers' food safety claims. Technological advancements have enhanced auditing processes, and there's a growing emphasis on training and competency development for auditors.

b. Capabilities and Resources:

- Wide range of training tools.
- The capabilities, resources, and tools used in food safety audits are critical components that help ensure the process is thorough and effective. Here are some of the main strengths: Capabilities: 1. Experienced Auditors: Having skilled and experienced auditors is a major strength. These individuals understand the intricacies of food safety regulations and can identify potential issues that less experienced individuals might miss. 2. Interdisciplinary Knowledge: The best food safety auditors bring together knowledge from various fields, including microbiology, chemistry, engineering, and legal regulations, to provide a comprehensive assessment. 3. Communication Skills: The ability to effectively communicate findings, both positive and negative, is crucial. This includes explaining the importance of food safety regulations and how non-compliance can impact the organization. Resources: 1. Standard Operating Procedures (SOPs): These are critical resources in food safety audits. They provide a guide to the best practices that an organization should follow and serve as a benchmark against which the auditors can compare the organization's practices.

2. Training Materials: Resources used for training employees on food safety practices are also important. They can be reviewed during audits to ensure they are up-to-date and comprehensive. 3. Record Keeping: Effective record keeping is essential for tracking and demonstrating compliance over time. This includes records of previous audits, corrective actions, and employee training. Tools: 1. Audit Software: There are many software tools designed to assist with food safety audits. These can help manage the audit process, from scheduling and conducting audits to tracking findings and corrective actions. 2. Testing Equipment: Tools for taking environmental swabs, thermometers for checking temperatures, pH meters, allergen testing kits, and other testing equipment are crucial for on-site audits. 3. Data Analysis Tools: Software tools that can analyze data from audits can help identify trends, areas of concern, and opportunities for improvement.

- Well-established quality infrastructure globally with many audit tools available (technical, IT, reporting, etc.)
- With the introduction of AI, early warning signs of potential risks and concerns may be detected at earlier stages and will become a valuable tool in preventing food borne disease outbreaks, which will prevent illness and save lives.
- All technological communication tools used during remote inspections (zoom, teams, telephone etc.) are used very effectively. Thanks to these effective tools, it has ensured that human resources are used correctly and that people with expertise in certain subjects are easily involved in the audits.
- Process driven approach.
- Auditing has the strength to reform a food manufacturing environment, align different perspectives on solutions or issues of food safety, engage staff with an eye to improvement bearing mechanisms of every day work. Resources can be managed in much more effective ways in holistic views, engagement of all departments and complementary actions against risky behavior or risky decision making during the establishment of prevention mechanisms or action plans.
- Companies with significant internal audit functions and vendor audit experience Publicly available information to guide auditors when preparing to audit a new company or specific material. For example - Codex standards for specific commodities or food safety hazards, JECFA specifications, Wikipedia. Goodwill and good intention within the food safety community - many are motivated to support each other with improving food safety outcomes.
- 3rd party audits: knowledge of auditors due to approval process 2nd party audits: time efficiency due to shorter checklists 1st party audits: knowledge of processes
- In all cases it is about auditor capability, being independent and being able to stand up for a value without being swayed by the client. An organization that invests in its audit team with good external support (auditor training, calibrated exercises, shadowing of auditors), would lend itself to having a more robust process in place to detect any issues, before a 2nd or 3rd party auditor does.
- Food safety auditors generally are well credentialed, have good industry experience and easy access to open-source IP and thought leadership.
- Some programs provide very clear guidance documentation that outline expectations in a very black and white, straight forward manner.

Others leave their standards open to interpretation, base their procedures on risk and allow for companies to justify their reasoning as to why they interpreted specific standards in a specific way.

- Well written requirements, training programs.
- Audit Methodologies and Protocols: Auditors utilize established audit methodologies and protocols to guide their assessment process; Audit Tools and Technology: The availability of audit tools and technology has significantly enhanced the capabilities of food safety auditors. Digital platforms and software solutions enable auditors to efficiently collect, store, and analyze audit data; Laboratory and Testing Facilities: Accurate and reliable testing of food samples is crucial for assessing compliance with food safety standards. Auditors can leverage the strengths of laboratories and testing facilities to verify the safety and quality of food products; Training and Professional Development: Ongoing training and professional development opportunities are crucial resources that contribute to the strengths of auditors.
- The main strengths for these topics are qualification rules established by each certification scheme.
- The competency of 1st party auditors and auditing programs are improving. Audit tools (checklists, mental checklists, questioning techniques, question phrasing and so forth) continue to evolve and can contain unique elements for each plant as needed. Auditor capabilities have been a major focus for the past 15 years thru GFSI. Now individual employers are recognizing the need to properly train their internal staff. because of this, auditor competency is improving, and it may be possible that there is a pipeline of auditors coming available for 3rd party providers.
- A high number of auditing tools such decision trees, gap analysis, software, free consultancy papers, consultancy, approved training centers with specific courses on steps supporting successful auditing, approved auditors for each Standard with validation process required prior the approval, remote auditing - allows sufficient scheduling,

c. Communication and Collaboration:

- As we are not involved directly in auditing (not a CB and not a corporate) - difficult to comment on this .
- Effective communication and collaboration are essential in successfully implementing food safety audits. The strengths in these areas include Communication: 1. Clarity and Transparency: Clear and open communication helps ensure all team members understand the audit process, its purpose, and what is expected of them. Transparency about audit findings, both positive and negative, also builds trust and encourages continuous improvement. 2. Regular Updates: Providing regular updates throughout the audit process keeps all stakeholders informed and allows them to address any potential issues promptly. 3. Education and Training: Effectively communicating the importance of food safety and training staff on best practices is critical. This not only helps improve compliance but also empowers employees to take an active role in maintaining food safety standards. Collaboration: 1. Cross-Functional Teams: Audits are more effective when they involve collaboration between different departments within the organization. This can provide a more holistic view of the organization's operations and promotes a culture of shared responsibility for food safety.

2. Supplier Collaboration: In the case of second-party audits, collaboration with suppliers is key. This includes sharing expectations, providing feedback, and working together to resolve any issues.3. Stakeholder Engagement: Involving all relevant stakeholders, from management to employees on the production line, can help ensure everyone is committed to achieving food safety goals. This engagement can also lead to better insights and more effective solutions.4. Third-Party Partnerships: Working effectively with third-party auditors or consulting services can provide valuable external perspectives and expertise, contributing to the overall effectiveness of the audit process.

- Evergrowing awareness and acceptance of auditing/certification across the world and within industries because more standards/schemes available and trade is evermore connected. International standards/schemes are developed by international stakeholders through process of collaboration e.g. ISO/IAF/etc.
- Communicating and sharing of metrics for both internally and externally, assist in meaningful collaboration. Good communication internally between staff themselves as well as management, prevent outbreaks. Good communication and collaboration externally prevent illness and deaths and assist in the effective withdrawal or recall of contaminated goods.
- As in my answer to the first question, always consider that unannounced inspections serve the food safety system in the daily routine processes of each link of the supply chain.
- Documented processes Transparency Integrated chain approach.
- It is a special strength, that even a closing meeting can bear, in terms – again – of diffusion of "ownership" of food safety, after a food safety audit.

Other than a complementary and combinatory scenario outlook or forensic detail studying during audit, it is sometimes that a balanced and "inclusive" closing meeting can act as a catalyzer or multiplier of food safety culture enhancement effects, that an audit might deliver too.

- Ease of collaborating remotely - now possible to readily speak with peers anywhere in the world if there's a need.
- 3rd party audits: no emotions involved due to (almost) unknown persons involved, clear communication 2nd party audits: no emotions involved due to (almost) unknown persons involved, clear communication 1st party audits: very good collaboration.
- Communication and Collaboration across any audit type is crucial for setting the scene and expectations.
- Food safety auditors are mostly trained to quality assurance principles therefor they understand engagement with people and relationship management well.
- I think that third party auditing entities communicate their agenda and ensure there is no conflict of interest well before an audit takes place.
- With 3rd party global recognition helps.
- Food safety auditing has seen increased collaboration and partnerships among various stakeholders, including governments, industry associations, and certification bodies. This collaboration helps in sharing best practices, aligning standards, and fostering a collective effort to improve food safety across the supply chain. By working together, these stakeholders can leverage their resources, expertise, and influence to drive positive change and raise the overall level of food safety.
- The main strengths for these topics are: - Formation of groups of auditors from the same certification body to discuss interpretations and provide mutual

support; -The existence of calibration events among auditors from all certification bodies, -Availability of free or paid webinars to deliver food safety updates.

- 2nd and 3rd party providers are better at communicating than they have been. This is becoming a strength. I am not sure there is collaboration between 3rd party auditing groups. My rationale is just speculation and hearsay though.
- Working groups for CBs and ABs, Standard owners and collaboration with GFSI oversight, collaborations of main corporations imposing their requirements on all suppliers (2nd party auditing), interpretation guidance produced by Standard owners as well as by ISO committes, international events.

Weaknesses:

a. Strategies, Policies and Processes:

- Lack of harmonized approach many different qualification processes.
- While food safety audits are essential, there can be some challenges or weaknesses in the strategies, policies, and processes used. Here are some potential areas of concern: Strategies: - Overemphasis on Compliance: While compliance with regulations is crucial, an overemphasis on compliance can sometimes lead to a "check-the-box" mentality, where the goal becomes passing the audit rather than genuinely improving food safety. - Insufficient Adaptability: In an ever-changing food industry with evolving risks, a strategy that does not adapt to new threats can be a significant weakness. - Lack of Risk-Based Approach: Failing to prioritize areas of higher risk can lead to inefficient use of resources and may leave the organization vulnerable.

Policies: - Inflexible Policies: Policies that are too rigid may not allow for adaptability to different situations or challenges that can arise in the complex field of food safety. - Inconsistent Enforcement: If policies are not consistently enforced, they can create confusion and lead to non-compliance. - Outdated Policies: If policies are not regularly reviewed and updated to reflect current best practices and regulations, they can become outdated and ineffective. Processes: - Insufficient Training: Without proper training on audit processes, staff may not fully understand their role in the audit or how to correct identified issues. - Inadequate Follow-Up: If non-compliances are not adequately addressed and followed up on, the same issues may recur in future audits. - Poor Documentation: Inadequate record-keeping can make it difficult to track improvements over time, demonstrate compliance, or identify recurring issues. - Resource Constraints: Limited resources, in terms of time, personnel, or financial investment, can prevent comprehensive audits from being carried out.

- Little sharing of strategies, policies and processes in terms of learnings, etc.
- Generic strategies, policies and processes that are not tailored to the specific needs and requirements of the food business, may give a false sense of security with an impression that all food safety goals are being met, while in reality they an increased risk.
- Audit only because it is demanded Choice of a scheme is imposed by buyer Company culture.
- Main weaknesses include disregard of the importance of audits as "snapshots in time" that really do not matter too much because they just fulfill the typicalities of a transaction. Personal ethos and professional capacity of auditors play a huge role in tackling such notions.

- Lack of policy, driven by search for easy solutions. Corresponding lack of strategies and processes that are fit for purpose. The challenge and constraints we face, require deep & sustained thought, and a serious effort of consensus building (not to achieve full consensus but rather to increase it to a workable level). For example - many in industry do not recognize the need for their vendors to hold certification, while simultaneously not accepting their responsibility (and associated financial obligation) to audit their vendors. They perhaps believe food safety is a given or perhaps they believe the hazards are overblown. An excessive level of this belief among food industry management teams must mean any effort to solve the audit problem will be blocked by lack of sufficient industry support.
- 3rd party audit: complicated online tools for reports (time consuming for documentation) 2nd party audit: Value of audit is not always given (lack of harmonization) 1st party audit: wide range of methods and documentation with no clear minimum requirements.
- In all cases a weakness is the lack of credibility given to audits and auditors. Often held up as the “standards police” ready to catch people out. If they were held in higher regard from the top to the bottom it was enhance the output, no end.
- In most companies there is a significant disconnect between the different disciplines in strategy, policy and process both developmental and operational. Rarely are OH&S, Environment, Social, Governance, Sustainability and Food Safety connected as they are often treated as separate disciplines.
- Varying programs and strategies seem disconnected from one another, and so throughout the supply chain each party requires something slightly different and certain customers have standards that they must meet that does not necessary align with all suppliers.
- Very generalized and specific elements that are key may be missed.
- There are times when policies are porous and do not convey any commitments to food safety. Processes are also sometimes entirely different from what documented information states.
- Resource Limitations: Food safety audits require significant resources, including qualified auditors, time, and financial investments; Inadequate Training and Competency: The weaknesses in strategies, policies, and processes can be exacerbated by the lack of adequate training and competency development for auditors; Compliance-Oriented Approach: Some food safety auditing programs tend to focus primarily on compliance rather than fostering a culture of continuous improvement.
- The main weaknesses are constant failures in the certification process due to structural or organizational problems or competence of the certification bodies; Results of 3rd party audits do not reflect reality; Customers don't believe in certifications and want to perform their own 2nd party audits; 2nd party audits more rigorous than 3rd party.
- Policies and Procedures are very prescriptive. I believe auditing needs to be more loosely managed to allow auditors leeway to dive deeper into potential concerns.
- Blanket approach with aim to standardize the approach - i.e., one fits all with lack of consideration for local factors, level of understanding and awareness as well as applicability not only based on geographical location but also on the type of operations, applicable sector.

b. Capabilities and Resources:

- Lack of global standardized benchmark.
- In terms of capabilities and resources, several potential weaknesses could hamper the effectiveness of food safety audits. Here are some of them: Capabilities: - Inadequate Training or Expertise: If the auditors lack sufficient training or expertise in food safety, they may miss critical issues or misinterpret findings. This includes knowledge of the latest food safety standards and regulatory requirements. - Insufficient Interdisciplinary Knowledge: The complexities of food safety require an understanding of various fields, including microbiology, chemistry, and even legal regulations. A lack of such interdisciplinary knowledge could limit the effectiveness of the audit. - Poor Communication Skills: If auditors cannot effectively communicate their findings and recommendations, corrective actions may not be properly implemented.Resources: - Lack of Standard Operating Procedures (SOPs): Without proper SOPs, there can be inconsistencies in how operations are carried out, which can lead to lapses in food safety. - Outdated Training Materials: Training materials that are not kept up-to-date with current best practices can lead to employees not being adequately prepared to maintain food safety standards. - Poor Record Keeping: If record-keeping is inadequate, it may be difficult to demonstrate compliance, track improvements, or identify recurring issues. - Limited Resources: In terms of time, personnel, or budget, limitations can prevent comprehensive audits from being carried out. This can result in certain areas not being audited as thoroughly as necessary. - Inadequate Tools and Equipment: Without proper tools and equipment, including audit and data analysis software, testing equipment, and more, auditors may not be able to fully assess all aspects of the food safety system.
- Lack of skilled auditors, lack of quality data, lack of cooperation.
- Poor staff training and knowledge building with a lack of financial resources, lead to an increased food safety risk and a poor company food safety culture.
- It may be that people with no knowledge of certain processes audit those processes and that auditors do not go through an approval process. In addition, if auditors start an audit without any shop floor and process experience, it may cause them to make an accurate and fair assessment and therefore miss important risks.
- Training and qualification of auditors Training and qualification of personnel, available resources to implement.
- Again, ineffective professional capacity or low outlook of independence of auditors can induce weak outcomes during food safety audits. Both In terms of real problem locating (issues of food safety) but in terms of performativity that a distrusted audit might have in the perception of Food Safety Systems amongst staff.
- Experienced food safety auditors. Many come from a 'blind leading the blind' background. Sufficiently skilled and knowledgeable food company leadership. Measured by $share of the global market, the presence of large food companies with technically competent food safety leadership may lead us to believe that the food industry globally has adequate technical food safety leadership. If we measure according to the number of players in the food industry and weight this according to the volume of foods they affect (either as sold directly or as ingredients in finished goods), we will

find that global food safety results are driven mostly by companies with inadequate food safety knowledge/leadership.

- 3rd party audit: not enough auditors with knowledge available 2nd party audit: lost resources because almost every retailer orders additional audits of GFSI-certified companies (lack of acknowledgement) 1st party audit: too much resources internally needed (lack of efficiency).
- Resources for all are poor. They is a lack of auditors across all stream, resulting in poor auditing that only touches the surface and doesn't enable real change but only verifies compliance.
- Food safety auditing skill level is sometimes lacking. Auditors are often not practiced enough and auditing skill reviews are rarely undertaken in most companies.
- Some programs fail to provide appropriate guidance to their own standards. When new requirements are added, there is often very little information especially when the standard is first amended, and it leaves room for ineffective use of the new standard, and companies become vulnerable to non-conformances due to a lack of education or guidance.
- Skilled audit force.
- Management sometimes think it is costly and burdensome to implement food safety management systems. Auditing therefore becomes challenging especially in first and second party audits.
- Insufficient Auditor Expertise: One of the primary weaknesses is the lack of sufficient expertise among auditors; Limited Industry-Specific Knowledge: Different sectors of the food industry have unique characteristics, processes, and risks; Limited Access to Testing Facilities: Adequate and reliable testing of food samples is essential for verifying compliance with food safety standards.
- The main weaknesses are qualification process and continuous evaluation of auditors is very weak; qualification process and continuous evaluation of auditors is very weak; Audit time is not enough for a proper assessment.
- Auditors are being taught to audit, not to present their findings as a case for continuous improvement. Especially internal audits - these can be turned into a cost of failure analysis and a company savings program. If the audit program finds concerns and they are fixed, does that not help the company and create a positive image for the audit group?How do we move audit groups from the 'here to find something wrong' group into the 'we help improve processes and keep the company earning more money' group?
- Availability of competent auditors in terms of time, location, approval process too narrow focused on repeated steps, people and approach to change and how is it handled - covered to some extend by food safety culture, however not fully, use of AI.

c. Communication and Collaboration:

- Communication: - Lack of Clarity and Transparency: If communication is not clear, it can lead to misunderstandings about the audit process, its findings, and the necessary corrective actions. A lack of transparency can also undermine trust within the organization. - Infrequent Communication: Without regular updates, issues that arise during the audit process might not be promptly addressed. This could delay necessary corrective actions and prolong non-compliance. - Ineffective Communication of Importance: If the importance of food safety and adherence to standards is not communicated effectively, it could lead to non-compliance due to a lack of understanding or perceived significance.

- Collaboration: - Poor Cross-Functional Collaboration: If different departments within the organization do not collaborate effectively during the audit, it can result in missed opportunities for improvement and a lack of shared responsibility for food safety. - Lack of Engagement with Suppliers: In the case of second-party audits, a lack of engagement with suppliers can lead to communication breakdowns and unresolved issues. - Inadequate Stakeholder Engagement: If all relevant stakeholders are not actively involved in the audit process, it could result in a lack of commitment to achieving food safety goals. - Poor Relationships with Third Parties: If relationships with third-party auditors or consultants are not managed effectively, it could limit the organization's access to external perspectives and expertise.
- Food safety auditing is technical in nature so there's too little attention for communication on ins & outs. There is some collaboration within GFSI but don't see that really happening in 1st of 2nd party auditing?
- Lack of commitment to food safety culture, leads to poor communication and collaboration.
- The language and style used by auditors to prove themselves to the auditee can both cause the auditee not to be open enough and prevent an effective audit.
- Management commitment Company culture.
- Audits can be carried out and recorded just between the "usual suspects", that is Quality Managers and Auditors. A weakness is that participation during an audit or during a closing meeting is encouraged to be holistic and fully representative of different departments and procedural teams of a factory. However, it is not an obligatory thing to claim. It might be that checklists drive staff engagement (as certain features need specialized answers e.g. maintenance) but however, and most of the times, audit is perceived as "the day of the Quality Manager", on which, the Quality Manager has the role to "digest" all information and then spread the news to different parties that might be in the anticipatory position to reflect or reject on findings. Low participation of different departments during audits and of course, closing meetings, if not a part of the Food Safety Culture itself, can encourage disengaging perceptions and agendas apart from the overall claimed purpose of Food Safety.
- Lack of discussion, Inadequate engagement with regulators, Inadequate education of entrepreneurs, non-technical management of food companies, Inadequate communication to consumers to help them recognize the necessary costs in food safety.
- 3rd party audit: on experience exchange among auditors of different CBs 2nd party audit: no results available 1st party audit: colleagues are too close (emotions are involved).
- Limited numbers of people know about audits and it means that during an audit, people are reluctant to get involved for fear of making a mistake and that then being recognized by everyone.
- Company systems that do not connect the different disciplines create difficulties for communicating and hinder justification for collaboration. Disciplines tend to be silo'd however Food Safety touches nearly everything in a company.
- When it comes to the auditing process, auditors are not at liberty to consult, but essentially, the entire auditing

process is meant to consult a company by finding gaps and prompting corrective actions. Scoring is assigned that tells a company's business partners how "good" or "bad" a company is, which directly affects said company's business relationships. A culture is created to protect the business, a company may feel obligated to hide the flaws rather than correcting them, which negates the purpose of an audit. There should be a step in the auditing process whereby if a company corrects its gaps, there is an opportunity to improve the score that is to be communicated to business partners, creating a culture where improvement is rewarded.

- Companies go for recognition, but 3rd party certificates are seemed easy to get and there is nothing to compare one certified company vs the other.
- There is normally the idea that food safety is only relegated to the quality department making communication and collaboration with other departments challenging.
- Language and Cultural Barriers: Communication weaknesses may stem from language and cultural barriers in international food supply chains; Limited Supplier Involvement in Audit Process: Weaknesses can arise when suppliers have limited involvement in the audit process beyond being assessed; Lack of Clarity in Audit Expectations: Weaknesses in communication can arise when audit expectations are not clearly defined and communicated to suppliers.
- The main weaknesses are: some companies still do not see that internal audit is a lever for continuous improvement; Many certification bodies have poor technical support/coordination for auditors; Difficult reports to be filled out and very extensive; Non-objective reports.
- Collaboration needs to start at the top.

For example, GFSI may write a new standard but each scheme interprets what that means differently. Some may require evidence of training, others may accept a time and knowledge standard for the leader. In order to have collaboration (for example, providing a training class), the top leaders must adequately define what they are expecting.

- Translation of law, standards, guideline documents, etc - the main message is often lost in translation.

Opportunities:

- Expand the pool of the future auditors using competent auditors from the Global South initiate a global reference for the qualification and accreditation of food safety auditors - thus reduce the multiple qualification processes.
- Digital Technology and Automation: Implementing digital technologies can streamline the auditing process. This includes audit management software that can automate scheduling, reminders, and follow-ups, and artificial intelligence (AI) algorithms that can analyze large datasets to detect trends or anomalies. IoT devices can continuously monitor and log critical parameters like temperature or humidity, providing real-time data for auditing. Data Analytics: As more data is collected through audits and monitoring, data analytics can provide valuable insights. This can help identify patterns, predict potential issues, and inform proactive improvements. Continuous Training and Development: Investing in continuous auditor training can ensure that auditors stay up to date on the latest food safety standards, regulations, and best practices. Regular training for employees can also ensure that they understand and can implement food safety standards effectively.

Collaboration with External Entities: Strengthening collaboration with third-party auditors, industry associations, or regulatory agencies can provide fresh perspectives and access to external expertise. This can help the organization stay abreast of industry trends and regulatory changes. Strengthening Supplier Relationships: Improving communication and collaboration with suppliers can help ensure that they understand and meet the organization's food safety standards. This can reduce the risk of issues in the supply chain. Promoting a Food Safety Culture: By promoting a culture that values food safety, organizations can encourage all employees to take an active role in maintaining food safety standards. This includes clear communication from leadership about the importance of food safety, recognition for employees who uphold high standards, and opportunities for employees to contribute ideas for improvement. Sustainability Integration: More and more consumers value sustainability and integrating sustainability into food safety audits can provide a competitive edge. For example, reducing food waste can improve food safety while also addressing environmental concerns. Transparency and Traceability: Enhanced transparency and traceability, potentially supported by technologies like blockchain, can reassure consumers about the safety and quality of their food. This can also make it easier to identify and resolve any issues that do arise.

- Risk-based and data driven auditing is easier said than done because requires critical pre-requisites and collaboration around e.g., data ownership, access, quality, etc. but would potentially solve problems such as auditor scarcity.
- With the introduction of AR in auditing, there is an opportunity for food safety to enter a new era of auditing, where more spot checks can be done at shorter notice. It allows auditors to audit remotely, saving costs as well as being able to enter locations that would otherwise be biosecurity risks.
- The effectiveness of food safety audits will increase if the culture and perspective of a business is changed starting from the management team. In addition to the compliance audit of the facilities, audits should be carried out to evaluate the food safety culture, and even the culture assessment should first be in the form of self-assessment and then this self-assessment should be reviewed as part of the on-site audit to prove how realistic the self-assessment is. By proceeding in this way, the sustainability of the food safety system of the facilities is ensured and food safety audits are more effective.
- Data science Risk-based auditing Use of remote audit techniques.
- Food Safety Auditing gives the opportunity of a non-typical classroom. It signals points of interest and records detailed notions of problems that might give way to future food safety threats. If audits are perceived as practical trainings, then participation and ownership can be strengthened, and Food Safety Culture can be enhanced.
- Teach consumers Teach management Ease of on demand training materials as a tool for raising awareness and competence. Viral communications as a tool for culture change.
- All schemes' owners have their databases, but access is always different and complicated. You cannot get on one spot a result of "Company XYZ is certified with X, Y, Z and main achievements of …". With a combination of different auditing results, I am quite sure that we could reduce the efforts without losing the food safety level.

- Better training of auditors. Better awareness of the importance of audits. Better understanding of the benefits of auditing to continually improve the outcomes. Calibration of audit teams can be so beneficial. Instead of one training and then they're done. Recalibrating of auditors to keep strengthening the muscle.
- Food safety auditing interacts from raw material to finished product throughout the supply chain. Collaborating more with ESG's, sustainability and OH&S throughout this scope will bring more attention and ultimately funding and potentially elevate food safety as a core function beyond compliance.
- Trends in our industry are pressuring food production companies in include certification for other areas of operation. Emphasis on environmental protection, social responsibility, and sustainability are becoming a greater priority than even food safety and quality. Food safety auditing will need to evolve to support these areas of operation in order to keep up with the demand.
- Learning from other companies, even non-food companies. Using technology to look at data and metanalysis to manage processes.
- To be able to benchmark auditors of different certification schemes so it is easier to be audited or audit a different scheme than what one is used to.
- Digitalization and Automation: The integration of digital technologies and automation presents significant opportunities to enhance food safety auditing; Data Analytics and Insights: The increasing volume of data generated during audits provides opportunities for meaningful analysis and actionable insights; Regulatory Evolution: Evolving regulatory frameworks and standards provide an opportunity for auditors to play a vital role in ensuring compliance and driving continuous improvement; Continuous Learning and Professional Development: Opportunities lie in investing in the continuous learning and professional development of auditors.
- A good database to support the auditor in real time during the audit on technical issues; More dynamic, objective and easy-to-fill reports that could be completed during the audit without the need for the auditor to spend hours making the final report after the audit.
- Training to help internal teams understand that they are not 'finding things wrong'. they are improving the process and the company.
- People skills - understanding how human operates, how groups operate and their dynamic, as a result of change in certification requirements as well as interaction with auditor, who is an outsider and ability of auditor and certification team to handle the audit process in relation to people management. Broader application of remote auditing, subjected to risk analysis at individual level. Appreciation to currently available resources with chemical/medical background and simplify the processes to allow them to become an approved food safety auditors. Availability of relevant education as soon as at primary school level to allow future resources to gain basic understanding.

Threats:

- Multiple qualification processes lack of global reference loosing the good ones
- Regulatory Changes: Rapid changes in food safety regulations can pose a threat if organizations are unable to adapt quickly enough. This could lead to non-compliance, even if the organization's food safety practices were previously adequate.

Emerging Food Safety Risks: New food safety risks can emerge due to factors such as climate change, new technologies in food production, or changes in consumer behavior. If these are not quickly identified and addressed, they could pose a threat to food safety. Resource Constraints: Limited resources, including time, budget, and personnel, can constrain the scope and frequency of audits. This can prevent organizations from conducting as thorough or regular audits as would be ideal. Resistance to Change: Implementing changes based on audit findings can be challenging, particularly if there is resistance from staff or management. This can slow down improvements and limit the effectiveness of audits.Technological Challenges: While technology offers many opportunities for improving food safety audits, it also poses challenges. These include the need for technological expertise, the risk of cyber threats, and issues with data privacy and management. Supply Chain Complexities: With globalized food supply chains, ensuring food safety across all suppliers can be complex and challenging. There is a risk of food safety issues arising from suppliers that are not adequately monitored. Economic Instability: Economic downturns or instability can put financial pressure on organizations, potentially leading to cutbacks on food safety measures or audits. Pandemics or Other Disasters: Situations like the COVID-19 pandemic can disrupt food supply chains and make it difficult to carry out regular audits. They can also lead to new food safety risks that need to be addressed.

- GFSI, lack of auditors.
- The increased requirement for qualification of auditor skills, the increased time spent away from homes for auditors and the average age of auditors increasing, is a threat that the industry will loose auditors.
- One of the obstacles to real and fair auditing is that auditing itself can be seen and used as a means of punishment. Factories may not be open enough as auditors strive to find non-conformities. Another reason is that even if a factory's compliance with food safety rules poses a severe risk, companies do not strategically decide to suspend the operation of that factory until urgent mitigation action is taken.
- Availability of auditors. Ability to change.
- Threats against Food Safety Auditing going the extra mile include low professional capacity of auditors or even non-functioning work relations, different agendas, lack of priorities, short-term visions and in general, an insecure and unstable working and financial environment.
- Complacency of consumers and company leadershipClimate & political emergencies overtaking food safety for share of attention & resources - people are too focused on immediate survival to care about anything less immediate Personal ambition and greed - people have been conditioned by neo liberal drivers to seek fulfilment by consumption, dependent on ‘more’, fearful of any measures that may mean having less personally. Fearfulness of threats to personal abundance drives people to reject engaging with food safety solutions.
- Documentation is the main issue in an audit. You cannot focus anymore on the target food safety. It will go in the background. We have to consider our goal again.
- Lack of knowledge and superficial auditing can mean things are undetected. Making it a risk of issues.
- Food safety auditing needs to embrace the new technologies like AI, data analytics and machine learning. Acceptance that new technologies will change food safety auditing will allow

the new technologies to develop with the same science-based approach as current learning from food safety auditing history and experience.

- I think that there is a need for education and expert consultation from areas related to sustainability and social responsibility, to ensure that there are programs that encompass standards that cover these areas in one audit. As it stands food safety auditing is limited to food safety alone. A complete overhaul of these programs to include standards that meet all the priorities in the supply chain is an enormous undertaking and requires science-based research and resources, and collaboration from multiple programs to make available to companies any options for a single audit that covers all of these topics.
- There needs to be some oversight on how audits are done and ways to govern an audit.
- Food safety Auditing does not cover nutrition and food security. This should be looked at critically.
- Rapidly Evolving Risks: The food industry faces constantly evolving risks, including new contaminants, emerging pathogens, and changing production and distribution practices; Complex Global Supply Chains: The complexity of global food supply chains presents a significant threat to food safety auditing; Regulatory Gaps and Inconsistencies: Weaknesses can emerge from regulatory gaps and inconsistencies in food safety auditing; Resistance to Change: The resistance to change within the industry can pose a threat to auditors' efforts to go the extra mile.
- Constant updates of legislation or research related to contaminants; Conducting non-behavior-based audits; Little time to perform audit; Unattractive pay.
- Lack of acceptance or understanding by senior leaders that an internal audit program can be used as a continuous improvement program. Identify the opportunities and fix them. this improves the business model.
- Lack of appreciation for their commitments, culture of entitlement across the CBs / ABs, commercialization of the audit process as a whole in order to become a money-making machine rather than tool for enforcement of food safety rule thus safe products; risk of losing competencies due to carrier brake for personal reason and very long process for re-approval, including witnessing and auditing skills, which can be perceived as insulting.

ABOUT US

World of Auditing is a specialized consultancy firm dedicated to elevating the standards of auditing, strategy optimization, and governance in the Food & Beverage industry. Founded by industry professionals Tülay Kahraman and Marc Cwikowski, our company brings together decades of global experience to offer bespoke solutions that drive excellence and innovation in food safety and quality assurance.

Get in Touch

info@worldofauditing.com

COPYLEFT DISCLAIMER