Abstract

Consumers are increasingly concerned about the safety of food they eat. This TÜV SÜD white paper presents the findings of TÜV SÜD’s Safety Gauge study on consumers’ attitudes and experiences regarding food safety, and provides recommendations for food producers to better meet consumer expectations.
The importance of food safety | TÜV SÜD

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About the TÜV SÜD expert

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Introduction

For consumers around the world, access to safe and nutritious food is an essential requirement for maintaining their overall health and well being. Accordingly, food producers make significant investments to ensure the safety of their food products and to reduce the risks associated with consumer exposure to contaminated or unsafe foods. Producer efforts to provide safe food can impact every aspect of the entire sourcing and production supply chain, and represent approximately 14% of the total expenditures related to food production.

But how do producer efforts measure up when it comes to consumers’ opinions and attitudes about food safety? How does the origin of food products affect consumers’ beliefs about whether a particular food product is safe to eat? What is the impact of food safety recalls on consumer buying habits? Most important, are consumers willing to pay a higher price for food that has been evaluated for safety by an independent third-party?

The TÜV SÜD Safety Gauge is the world’s first independent study to evaluate consumer and business attitudes and experiences regarding product safety practices in the food sector. The results of this landmark study reveal the increasing importance of food safety to consumers around the world, as well as their views about producer efforts to improve food safety. This white paper summarises the results of the TÜV SÜD Safety Gauge study, and discusses the implications of the study’s findings for food producers.

Safety Gauge study background

The TÜV SÜD Safety Gauge study was conducted during in Q2 2012 by an independent market research firm to develop a better understanding of the state of product safety in selected global industries, including consumer electronics, children’s toys and food. Specific objectives of the Safety Gauge study included:

- Understanding the general importance of product safety to consumers and producers.
- Uncovering perceptions regarding the level of product safety in specific industries.
- Evaluating the impact of actions by industry and government to improve product safety levels.
- Measuring safety and traceability issues in global supply chains.
- Assessing the role of third-party certification in food product acceptance by consumers.

Study research was conducted among consumers and business professionals in top-tier cities in the U.S., the United Kingdom, China, India and Japan. These five markets represent almost half (48%) of worldwide Gross Domestic Product (GDP). Data was collected through online surveys as well as through consumer and business panel discussions. More than 5000 consumers and 500 management-level employees in manufacturing, distribution and retail companies contributed data to the Safety Gauge study, with over 4700 consumers and 300 management-level employees responding to surveys regarding the safety of food.
Key findings of consumers views on food safety

Overall, concern among consumers regarding the safety of food is increasing. The Safety Gauge study reveals that two-thirds (67%) of consumers now believe that food safety is very important, up from less than half (48%) of consumers in 2007. Further, consumer study participants predict that food safety will be very important to 71% of consumers by 2017.

Detailed results from the Safety Gauge study on food safety are addressed in the following sections.

CONSUMER PERCEPTION OF THE IMPORTANCE OF SAFETY WHEN BUYING FOOD PRODUCTS
Percentage of consumer respondents stating product safety is important

<table>
<thead>
<tr>
<th>Year</th>
<th>Quite important</th>
<th>Very important</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>32%</td>
<td>48%</td>
</tr>
<tr>
<td>Now</td>
<td>22%</td>
<td>67%</td>
</tr>
<tr>
<td>2017</td>
<td>20%</td>
<td>71%</td>
</tr>
</tbody>
</table>

Base: All consumer respondents. TOTAL = 4,701
Question: How important is product safety when you purchase food products? And how was this 5 years ago? How about 5 years from now?

A. The state of food safety

Despite the attention paid to food product safety by producers and manufacturers, over 40% of consumer study participants report having an experience with an unsafe food product within the past five years. Twenty-one percent report experiencing an allergic reaction to substances or ingredients found in food that were not disclosed on the label or otherwise not known to be used in the product. An additional 16% report having experienced food poisoning related to food that they eat, while 6% report experiencing choking in connection with a food product.

Among consumer study participants, the average frequency of experiencing an unsafe food product was slightly more than once a year. Approximately 33% of participants report having at least one experience with an unsafe food product during the past year, with 18% reporting two or more experiences per year, and 11% reporting three or more experiences within a single year.

Consumer reports of experiences with unsafe food products appear to align with data from food producers themselves. According to the management study participants, producers recalled food products an average of two and a half times per year during the past five years. However, 36% of management study participants report that their companies recalled unsafe food products more than nine times over the preceding five years, with 21% recalling unsafe products more than 20 times during the previous five year period. Only 24% of management study participants indicate that their companies did not recall any food products during the prior five years.
B. Perceptions of food safety

Consumer perceptions regarding the safety of food are based on a number of factors, including the type of food product, the country from which a food product originates, and the retail channel through which a food product reaches consumers.

Among various types of food product groups, raw meat and fish topped the list of food groups of greatest safety concern for 72% of consumer study participants. Dairy, milk and egg products ranked highest in safety concerns for 66% of participants, while fresh produce, including fruit and vegetables ranked highest for 49% of participants. Even food supplements and health foods ranked highest in safety concern for 31% of participants.

A food product’s country of origin is another important factor in consumer perceptions of food safety. Japan was ranked as the safest country for exported or manufactured food products by 26% of consumer study participants, followed by Northern Europe with 22%, and Canada with 17%. In general, food products originating from several parts in Asia are perceived as being the least safe.

Consumer study participants also expressed concerns about the safety of food products purchased through online retailers. Although 48% of respondents report having purchased food products online, 55% note that their concerns regarding food safety were much greater or somewhat greater for food products purchased online than their concerns regarding the safety of food purchased through other retail channels.

In addition to the above factors, familiarity with specific brands of food products also influences consumer perceptions regarding a product’s safety profile. Consumer study participants consistently report that they expected that producers of their trusted food product brands routinely conduct:
1. Pre-shipment inspections of food products (68%);
2. Batch testing of food products for safety (59%);
3. Supplier audits (55%).

Producers of trusted food brands are also expected to obtain food product certifications (53%), and to maintain certified management systems to assure quality and safety (44%).

C. Food safety and purchasing criteria

The Safety Gauge study also measured the criteria of greatest importance to consumers in the evaluation of the food products they purchase. Price was the most important or second most important criteria in purchasing specific food products for two-thirds (66%) of consumer study participants, followed by food freshness (56%) and food safety (34%). Food safety ranked well ahead of other purchasing criteria, such as brand (13%) and country of origin (5%), as well as whether a food product was produced using sustainable methods (6%).

For most consumers, the presence of food safety labels is a strong indication of food product safety. Fully 88% of consumer study participants say that they would be much more or somewhat more likely to purchase food products that clearly state on their packaging that the product has met or exceeded applicable food product safety standards. Only 8% of participants say that the presence of such information would make no difference in their purchasing decision.

Among consumer study participants, at least eight out of 10 consumers are aware of at least one type of food safety label, such as those signifying HACCP (Hazard analysis and critical control points) certification, Food Safety System Certification (FSSC) or IFS (International Food Standard) certification. Even for food product brands with which consumers are familiar, evidence of food safety certification has at significant influence in the preference of one product over another for 41% of consumer study participants.
The importance of food safety

When it comes to food product brands with which consumers are not familiar, product safety labels are even more important in providing assurances regarding a food product’s safety. Sixty percent of consumer study participants indicate that they look at product safety labels all or most of the time when purchasing unfamiliar food product brands. Only 9% of participants report that they never look at the safety label for an unfamiliar food product brand before deciding to buy it.

Importantly, consumers appear to be willing to pay a premium price for food products whose safety has been independently verified. Among consumer study participants, food products that have been verified by a credible, independent third-party as exceeding applicable government standards would command an average 15% price premium over similar products. Fourteen percent of participants would be willing to pay a premium of 30% or more for verified safe food products, while only 17% would be unwilling to pay any premium.

**PREMIUM WHICH CONSUMERS ARE WILLING TO PAY FOR PRODUCTS THAT ACHIEVE SAFETY STANDARDS VERIFIED BY A CREDIBLE INDEPENDENT THIRD PARTY, ABOVE AND BEYOND WHAT IS MANDATORY**

Price premium (%) that consumer respondents are willing to pay

<table>
<thead>
<tr>
<th>Category</th>
<th>Total</th>
<th>Food</th>
<th>Children’s Products</th>
<th>Consumer Electronics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Premium (%)</td>
<td>16%</td>
<td>15%</td>
<td>18%</td>
<td>15%</td>
</tr>
</tbody>
</table>

Base: All consumer respondents who are willing to pay price premium. Sample sizes in aggregate and by product category: TOTAL = 4,043 FOOD = 3,535 CHILDREN’S PRODUCTS = 2,467 CONSUMER ELECTRONICS = 3,384

Question: How much premium over an average price are you willing to pay for products that achieve safety standards as verified by a credible independent third-party, that are above and beyond what is required as mandatory by the government?

Source: TÜV SÜD Safety Gauge 2012
D. The role of government in food safety

Consumers generally expect governments and regulatory authorities to take responsibility for the safety of food products. Forty-two percent of consumer study participants assert that government authorities should take the lead in ensuring the safety of food products in their country, while 21% believe that consumer groups should be primarily responsible for food safety. Only 12% of study participants identified food manufactures as the entity primarily responsible for the safety of food products.

However, only slightly more than half (54%) of consumer study participants believe that governments are definitely or mostly doing enough to ensure the safety of food products sold in the market. Fully 20% of participants believe that government does little or nothing to ensure food safety. And only 41% of consumer study participants believe that penalties imposed on companies that fail to meet food safety standards are strict enough.

E. The importance of third-party food safety certification

Finally, consumers study respondents are clear about the importance of third-party testing and certification of food products in their assessment of safe foods and in their food purchasing decisions. Ninety percent of respondents report that third-party certification is either very important or quite important for any food product sold in the market. And 82% of consumer study respondents say that third-party certification makes them feel better about buying a specific product, or at least provides some reassurance of safety.
The business cost of food safety

When it comes to the perspective of food producers, data from the TÜV SÜD Safety Gauge study demonstrates that significant improvements have been made to product safety practices over the last five years in the food industry. More than twice as many management study participants reported that their companies significantly exceeded food safety requirements in 2012 as compared with five years earlier. In addition, 84% of management study participants say that their companies meet or exceed minimum food safety requirements, and predict that even more companies will significantly exceed minimum food safety standards in the next five years.

Producers typically rely on a handful of methods to drive improvements in the safety of their food products. More than two-thirds (69%) of management study respondents report the use of in-house production testing to assure safety. Other key safety improvements methods include staff training (65%), exclusive sourcing from trusted suppliers (62%), independent, third-party product testing (57%), and product certification (53%).

These improvements in food safety have not been achieved without a significant cost. Management study participants report that their companies spend an average of 13.6% of total food production-related costs on product safety measures, with 19% of respondents reporting product safety expenditures of greater than 20% of total production costs. Further, management study participants estimate that their companies would need to increase spending on product safety measures to an average of 20.6% of total production costs to achieve compliance with the most stringent safety standards.

ESTIMATED PRODUCTION COST ALLOCATED TO FOOD SAFETY

Mean of safety cost as a percentage of total production cost

However, these costs must be measured against the financial impact of food product recalls necessitated by unsafe food products. Among management study participants, companies experienced an average of 12.4 product safety recalls within the previous five-year period, with over 20% experiencing 20 or more recalls within that timeframe.

Expenses directly associated with product recalls cost food producers an average of 9.4% of annual revenue, with 10% of respondents estimating recall expenditures exceeding 20% of revenue. In an industry where gross margins range between 5-15%, product recall expenses can have a significant impact on a food producer’s profitability.
The importance of food safety

Cost of product recalls as a percentage of annual revenues

On average, food companies had 10 product recalls in the last five years.

Cost of product recalls as a percentage of revenue

Base: All business respondents.

Food = 309
Children’s products = 204
Consumer electronics = 231

Question: Has your company experienced product safety recalls in the last five years? How many times? As a proportion of revenue, do you know how much product recalls cost your industry on average each year?

Source: TÜV SÜD Safety Gauge 2012

Continued investments by food producers in product safety measures can result in fewer product recalls and reduce the expenses associated with them. Further, improved product safety levels can help a producer demonstrate leadership in the industry, and potentially open the door to new markets where higher levels of product safety are expected. Finally, increased product safety contributes to brand reputation in the market, providing food producers with greater leverage when it comes to pricing their products.

What producers can do to meet consumers’ food safety expectations

The findings of the TÜV SÜD Safety Gauge study clearly show that consumers are placing increased value on the safety of the foods they eat, and are becoming more knowledgeable about how to identify foods that are more likely to be safe. These findings are evidence of a significant opportunity for food producers to leverage consumers’ interest in safe foods by making food safety a priority.

The TÜV SÜD Safety Gauge study results point to three specific areas where producers can improve the safety of their food products, as follows:

1. Apply a “farm-to-fork” approach to food safety - The modern day supply chain is extremely complicated.

   Today, corporations seek supply chain efficiencies not only through their direct suppliers, but also through suppliers’ suppliers and even parties further down the supply chain. This complexity has made effective supply chain management, extending from “the farm to the fork,” even more challenging. However, supply chain traceability is critical to reduce possible sources of contamination, and to speed up product safety recalls when required.

   Ideally, a holistic approach to food safety begins at the farm level, and
includes testing of plant seeds, soil conditions and animal feed. This testing can then be supplemented with the implementation of training programs and other good business practices, as well as the auditing and/or certification of business systems and procedures.

It is also crucial to build food safety and quality concerns directly into the production and manufacturing processes. For example, the HACCP certification program provides an excellent framework to enable food processors to identify, evaluate and control risks to food safety. Oversight should extend through the distribution and retail stages of the supply chain. Hygiene checks and vendor assessment audits should be conducted in connection with packaging and storage.

2. Leverage the value of third-party testing and certification - There is a gap between the value that consumers place on third-party product testing and certification and the importance that food producers place on testing and certification. Only half of management study respondents report that they use third-party testing and certification services, despite the fact that 90% of consumers indicate their preference for food products that have been independently tested and certified before being placed on the market. Product testing and certification by food producers helps to ensure the safety of food products, demonstrates a producer’s commitment to food safety, and fulfils consumers’ expectations.

3. Focus on prevention, not damage control - Reacting to a food safety issue after the fact is always less effective than preventing the safety issue from occurring in the first place. Prevention can be best achieved when food safety and quality are seen as strategic business objectives that can also contribute directly to improved financial performance. The high cost of food product recalls reported by management study respondents is clear evidence of the importance and value of seeing food safety as an essential business goal for every food producer.

Food producers are working hard to improve the safety of their products. The findings of the TÜV SÜD Safety Gauge study indicate that food producers share similar challenges regarding their food safety efforts. Consumers will unquestionably continue to demand that food producers comply with the highest possible food safety standards. The only question is whether food producers will provide them with the assurances of food safety that they seek. In the end, food producers that master these challenges not only reduce risk to consumers but also add genuine value to their products, thereby making them more attractive in a competitive marketplace.

TÜV SÜD is a leading international service organisation providing one-stop global solutions for product quality and safety testing and inspections, engineering support, management system certification, and training. With over 19,000 employees, TÜV SÜD operates worldwide at more than 800 locations. As partners in our customers’ processes, our specialist teams ensure that technology, systems, and know-how are optimised, thus strengthening our customers’ global competitiveness.
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