



Be sure **testo**

Testo Saveris Food Solutions

Retail Case Study



Maximizing **ROI** with Food Safety Software

In his often-quoted book, “Out of the Crisis,” about quality improvement as a competitive advantage, Edward Deming details 14 principals of quality management. While they are all necessary for a complete quality management mindset, #3 is acutely relevant to changes happening with food quality and food safety today. The third principal states: “Cease dependency on inspections.” This speaks to the heart of what forward thinking firms around the globe are engaging in: eHACCP, digital quality control, and automated food safety. Food service organizations, restaurants, food retailers, convenience stores and

everyone in-between currently rely on a multitude of layers to inspect quality into their organizations. Examples of this include corporate quality directors writing and distributing quarterly updated paper checklists, regional managers visually inspecting sites for up-to-date checklists, and on-site managers reviewing and physically signing employee check sheets at the end of shifts.

In most instances, all of these inspections do little to provide visibility or assurance that policies and procedures are being properly executed daily.



67% of employees do not follow food safety protocols

**According to a survey of food safety professionals by Food Safety Magazine, September 2018 (1)*

So, companies hire third-party inspection services to assess compliance and review documents regularly (monthly or quarterly) to further inspect quality. Some forward-thinking firms are asking themselves: “Is there a better way? Can we lower the number of inspections, lower costs, and improve quality and food safety?”

One regional food retail operation sought to improve quality, lower costs, and reduce inspection efforts by digitalizing and electronically distributing their food safety manuals and daily food safety/quality checklists. This multi-unit company is centrally controlled through the HQ offices. New food safety books are written, reviewed, approved, printed and distributed from the corporate office. The cost to print and distribute these manuals annually exceeds \$40,000. Additionally, hundreds of management hours are spent ensuring the updated lists are in use across all of the units. This management by inspection is estimated to cost approximately \$25,000 annually. It has also been recorded by the third-party inspection firm that most facilities struggle to consistently maintain daily food safety / quality records across the board, some inspection reports even identify pencil whipped records. Should an incident occur, the cost to a brand can be as high as million dollars per potential incident.

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The cost of a single foodborne illness outbreak ranged from \$3,968 to \$1.9 million for a fast food restaurant.

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*- Johns Hopkins Bloomberg School of Public Health,
Estimated Cost to a Restaurant of a Foodborne Illness Outbreak, May 2018 (2)*

However, because management understands that all risk cannot be eliminated through the introduction of one system, this brand risk was pushed down to \$200,000.

(1) Emond, Bertrand, et al. “The ‘A’ in Culture: A Toolbox to Drive Positive Food Safety Behaviors.” Food Safety Magazine, Oct. 2018, www.foodsafetymagazine.com/magazine-archive1/october-november-2018/the-e2809cae2809d-in-culture-a-toolbox-to-drive-positive-food-safety-behaviors/.

(2) Bartsch, Sarah M., et al. “Estimated Cost to a Restaurant of a Foodborne Illness Outbreak.” Public Health Reports, vol. 133, no. 3, May 2018, pp. 274–286, doi:10.1177/0033354917751129.

The Project Objective:

The project objective: to implement hardware and software that would eliminate paper, be centrally controlled by the organization, locally adaptable for varying facility types/menus, eliminate checklists that are not relevant to the site, and be 100% up-to-date every day, everywhere with as minimal effort as possible. The system must also be user driven, so that the corporation can easily change and update checklists as needed. Additionally, checklists must have the option to be “seasonal in nature,” meaning they can have timed start and end dates. During the project scope phase, six (6) different work stations were identified. These were the bakery, deli,

soup/salad/wing bar, specialty meat/seafood counter, dairy area, and meat grinding station. For the purpose of a proof of concept during the pilot phase, 2 work stations were chosen in 2 different store locations: the deli & the soup/salad/wing bar. The company’s existing checklists for both work stations were programmed into the Testo Saveris Food software system and stationary wireless temperature data loggers were installed in strategic locations to continuously collect data. Two shifts of line staff were trained and provided with Bluetooth enabled multifunctional thermometers and a rugged purpose-built tablet.





The client wanted to test the flexibility of the system and gauge how their employees reacted to change. It was decided that, over the course of a 90-day trial, checklists would change at the corporate level. In the control store, communication about these changes followed the normal path. Employees were informed via standard corporate emails and postings on employee bulletin boards about the change. At the test store, employees were not informed of the changes to checklists. The difference in communication at the store level was decided to test how well employees adapt to changes in expectations communicated electronically through the Testo Saveris Food system as opposed to the traditional method of



inform and inspect quality into the process. Findings from the 90-day pilot confirmed the key drivers for the project. Printed checklist costs could be eliminated, which did not surprise the management team. Additionally, the changes to the checklist were automatically followed at both locations regardless of management's engagement with the line employees. Additional surprises in the pilot study came from unexpected areas of importance to the organization.



In one location, significant improvements were made in the soup/salad/wing bar area. After only 2-days of engagement with the system, it was clear that temperatures for foods going into the salad bar at one location were consistently being found outside of minimum expectations. Quality assurance, location management and Testo started to investigate the situation. The store manager was certain that the new Testo equipment was either gathering data incorrectly or malfunctioning due to improper installation. All hands were called into the location to address the problem and do a field validation of the temperature probe. The Testo team verified that all

the equipment was functioning correctly and the quality assurance manager conducted a thorough process analysis of the preparation and production process. During this review it was identified that the salad bar chilling process was not being followed correctly. Salad bar items were not being properly chilled to below 40°F prior to being taken out of temperature control and placed on the salad bar. This was allowing several Temperature Control for Safety (TCS) items to rise slightly (to 43°F) during the salad bar set-up. Training ensued, the handling process was adjusted, and temperatures normalized at the salad bar.

Anecdotally, the manager for both locations found that the overall cleanliness at the Deli counter seemed to improve. During an interview at the end of the pilot study the deli managers were asked, why did they think the managers noticed improvement in the overall cleanliness and appearance of the deli counter area? The response was clear. Numerous temperature checks were eliminated due to embedded sensors in the deli case and employees had more time to straighten shelves and keep the product appearance at its peak. When asked further to quantify the amount of time saved due to automated temperature checks and automated alarms, employees felt that 30-60 minutes per shift was saved avoiding numerous hand recorded temperature checks.



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In a round-table discussion with the users at the end of the trial period, an employee pointed out that she thought the system would have created an incredible benefit in the deli area. She went on to share the following story; one night, power for a refrigerated case was lost. By the time the store reopened, the power was back and the case temperatures appeared normal. Upon checking the overnight alarm generated by the Saveris system it was clear that a 6-hour period of temperatures above 41°F had occurred. When presented with the data the store manager removed those food products and replaced the inventory. A few hundred dollars of products were lost, but the customer food safety was 100% protected.

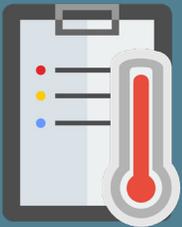
Each retail location has 6 departments. The department heads review and sign the daily checklist for their department. This is done for 2 shifts per day. The cost for this operation alone can be completely eliminated through the use of the comprehensive, electronic checklists available at the store, regional, and corporate level. Based on 89 locations, the savings to eliminate this effort alone pays for the entire system and is calculated to be \$584,000.

All printing was eliminated, creating an additional \$40,000 in annual savings. The company also estimated that it's managerial inspections for up-to-date documents could be eliminated, saving another \$25,000.

Evaluating Return On Investment with Testo Saveris Food Solutions



All Printing costs = \$40,000



Managerial inspections for up-to-date documents = \$25,000



1 hour of managerial time saved per shift per site across all 89 locations = \$584,000



Total Savings: **\$649,000**

About Testo:

Testo is the world's largest supplier of food safety software platforms and electronic measurement equipment. With over 60 years of experience in Food Service markets, Testo attributes its success to developing close partnerships with customers, allowing for a deep understanding of business needs. With over 2,700 employees in 33 countries, Testo develops these relationships at a local level, with an understanding of local requirements and culture. Testo currently has hundreds of thousands of data loggers and thermometers in the market and is storing over 17 billion data sets in the Testo Cloud. Testo's longevity and financial stability ensure our end-users the highest levels of service, innovation and accountability in the space. Testo is currently the provider of instruments, software and apps to many of the largest Food Service, QSR and food retailers globally.



Testo's Saveris platform enables the centralized control of food safety and quality processes while offering the flexibility to accommodate variations of equipment, store floor plans, and practices at local sites. Saveris provides both an app-based and web-based software platform including customizable dashboards for users at different levels to access information relevant to the user's role and visibility at all levels of management. Saveris provides automated alerts, corrective action steps, and visual aides to empower restaurant associates with information to address routine situations according to corporate food safety and quality expectations. The Saveris platform is fully scalable, with the ability to integrate into existing software, or as a stand-alone, enterprise wide Food Safety tool.