



Food Vending Provider Standardizes Site Inspections with UBTI's AI-Assisted Power Apps Solution

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WHO WE ARE

“UB Technology Innovations is a Microsoft Power Platform delivery partner offering no/lowcode solutions, virtual bots, RPA, and data insights. We help clients on their digitalization journey by automating tasks, optimizing workflows, and providing a competitive edge through quick app deployment”

WHAT WE DO

- Compliance and Security
- Enhance Productivity
- Improve Time to Market
- Reduce Operational Costs
- Maximize Profits
- Customer Experience



THE CLIENT

The client is a leading provider of workplace food and beverage solutions, helping organizations create well-equipped, convenient break-room experiences for their employees. Its services include vending machines, self-service micro markets, office coffee, bottled water, water filtration, pantry services, ice machine rentals, and school snack delivery.



CHALLENGES

Site engineers regularly visited vending machine locations to inspect equipment, food safety conditions, inventory, and the overall customer experience. During every visit, they had to record their observations, capture photos, and share the findings with regional managers for review. As the number of inspections and locations increased, maintaining the same level of accuracy and visibility across every survey became more difficult, creating these operational challenges:

- Maintaining survey consistency was challenging: Since site engineers worked at different locations and under varying conditions, the way inspection details were recorded could differ from one survey to another. This made it difficult to ensure that every inspection followed the same reporting standards.
- Reviewing field inspections took extra effort: Regional managers needed to know which surveys were completed, what issues were found, and which locations needed attention. However, reviewing inspection results, supporting photos, and engineer observations was not always available from a single place, making regular monitoring more time-consuming.



- Finding compliance trends across locations was difficult: Leadership teams needed highlights on recurring issues to compare performance across different lines of business and review historical inspection records for audits. Without a consolidated view, spotting common problem areas required additional manual effort.



SOLUTION

After studying the client's inspection process, UBTI focused on creating a simple, consistent inspection workflow for engineers during field visits while giving leadership better visibility into completed inspections. Rather than simply digitizing the survey, the objective was to provide teams with an easy-to-use mobile application for on-site inspections and give management better visibility into survey activities, compliance, and audit information.

The project combined modern application development with AI-powered coding practices to deliver two connected applications – one for site engineers to complete field inspections and another for management to review and monitor inspection data:

- Prompt Engineering shaped the development process: The application was developed using Microsoft Power Apps Code App with Prompt Engineering, GitHub Copilot, and a Vibe Coding methodology. AI-assisted coding laid the foundation for the application, while developers refined it to meet the project's requirements.
- Engineers completed inspections through a guided workflow: Using a mobile phone or tablet, site engineers could start a new survey, continue saved drafts, or review previous submissions. The interface supported both light and dark themes to provide a comfortable experience in different working conditions.
- Every survey captured complete inspection details: Before starting an inspection, engineers selected details such as the account, department, line of business, and survey date, with some fields automatically populated based on earlier selections. They then completed 30+ mandatory questions across five inspection categories, added notes where required, and uploaded photos to support their observations.
- The inspection adapted to different business lines: Based on the selected Line of Business, the survey displayed only the questions relevant to that type of equipment. This kept inspections focused while ensuring engineers completed the correct checklist for every site.
- Survey information was shared through connected workflows: Before submission, engineers could review an executive summary showing a summary of positive and negative inspection scores and edit if required. Once submitted, the survey was stored in Microsoft Dataverse, while a Power Automate workflow notified the respective Regional Manager. The same information also became available in the Management App for further review.
- Management teams viewed inspections from one place: A separate management app was developed for supervisors and leadership teams to monitor inspection activities. It displayed survey volumes, completion metrics, compliance reports, regional performance, and uploaded inspection photos. Management could also review and download supporting images alongside survey records, making it easier to review inspections, especially during audits.





OUTCOME

UBTI's new inspection process gave the client's field engineers and leadership a more structured way to manage site surveys from start to finish. As a result:

- AI reduced the application development timeline: By applying Vibe Coding app development principles, the solution was developed in approximately two weeks instead of the traditional one-month development cycle, demonstrating how AI-assisted development can significantly reduce delivery timelines for business applications.
- Inspection reports followed a common standard: Engineers recorded equipment conditions, cleanliness, merchandising, customer experience, and general observations using the same survey structure at every vending machine location. This made inspection records easier to compare across different regions and lines of business.
- Management gained better operational visibility: Survey information was available as soon as inspections were completed, allowing leadership to track inspection activities, monitor compliance trends, and review supporting evidence without waiting for manual updates.
- Overall audit oversight improved: Leadership teams gained centralized access to inspection records, engineer observations, and site photos, enabling faster validation of findings, easier identification of recurring issues, and improved audit readiness across locations.

Conclusion:

The client wanted a more consistent way to conduct site inspections while giving management timely visibility into every completed survey. As field inspection activities expanded across different lines of business, maintaining standardized inspection records and reviewing site conditions became increasingly challenging. To address this, we developed two connected apps using Microsoft Power Apps and AI-assisted application development. One application helped site engineers capture inspection details through a standardized workflow, while the other gave management a centralized view of completed surveys, compliance information, and inspection records for timely review. UB Technology Innovations, Inc. continues to support food vending organizations in building solutions that simplify operations and are ready for the demands of tomorrow.



www.ubtiinc.com



info@ubtiinc.com



+1 (714) 912-1600





ABOUT US

UB Technology Innovations, Inc. (UBTI) is a leading global technology solution provider with over 3 decades of experience across all industries, specializing in Capital Markets (Asset Management), Logistics, and Healthcare. We are the preferred Microsoft Solutions Partner backed by a world-class team of Microsoft Certified experts with rich experience in Azure Cloud Platform and Data Analytics.



UB Technology Innovations, Inc.
2401 E Katella Ave, Suite 450
Anaheim, CA 92806



www.ubtiinc.com



[company/ubti](https://www.linkedin.com/company/ubti)



info@ubtiinc.com



+1 (714) 912-1600



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