

Introduction

This study focuses on identifying the challenge faced by a French bakery and addresses it with the use of Vehant's advanced AI based video analytics solution.

Incepted in 2008, the French bakery offers authentic French breads and pastries in India. By creating the bakery on the cloud, the founders became independent of location and were able to keep their business open during the pandemic. The bakery has witnessed significant increase in customer demands for more variety of French baked products.

Although there have been certain hassles impacting the bakery's network uptime, the major issue faced by the founders was to ensure staff hygiene and premise sanitation in order to prevent the spread of any virus/contamination through hands and other sources. Moreover, Food Safety and Standards Authority of India issued rules and regulations for the food businesses to follow in order to keep their business open during the pandemic, continuing them even after that. Various guidelines have been issued including maintaining social distancing, proper sanitation of the baking, packing and delivery areas and keeping operations appropriately disinfected. The owners manually monitored these issues. But they found it extremely ineffective because of the manual errors, inaccuracy and the time it consumed.

HOW THIS FRENCH BAKERY DEPLOYED AI-BASED HYGIENE MONITORING SOLUTION

Problem Statement

According to the company, maintaining appropriate hygiene level was their key focus. The owners wanted to ensure that the staff wore the prescribed PPE at all times within the cooking area, washed hands at regular intervals and complete sanitation was enforced on the premise. The French bakery needed a comprehensive solution that would enable the owners to enforce hygienic practices on premise as well as maintain compliance with regulations. In order to accomplish this, they had to keep continuous monitoring of daily operational decisions and Vehant was approached them. Vehant analysed the issue and offered the AI-based video analytics solution for the bakery.

The food and hospitality industry as a whole has struggled to keep track of hygiene in their premises. The bakery brought into practice some significant changes in maintaining sanitation to ensure that this is not the case with them. They took hygiene and sanitation on priority and addressed certain standard operating procedures for their premise to keep catering to the customer needs. The owners replaced their manual monitoring practices with Vehant's AI-enabled hospitality analytics solution in order to accurately achieve implementation of SOPs.

The Solution & its Benefits

As explained by the lead product manager at Vehant, “The client had key focus on maintaining hygiene and sanitation and our suggestion was to use our hospitality analytics solution that includes use cases to monitor PPE like gloves, hairnet and chef cap detection and hand-wash detection. The use case of facial recognition was clubbed later.”



Vehant’s advanced AI powered video analytics solution is designed to be easily plugged into the existing cameras on the bakery premise positioned in the baking areas. The solution is deployed at the client’s premise for tracking and monitoring their staff by keeping check on whether PPE is worn by the workforce. The snapshots from one camera are shown above for various PPE violations. The solution monitors specific personnel in specific areas and compares them with the assigned model for the camera. It identifies people and activities that are not compliant with PPE guidelines, using its advanced machine learning and computer vision algorithms. The solution learns from pre-trained models and in case any guideline is violated, it sends real time alert to the manager.

The bakery owners and their employees did not encounter any issues with Vehant’s AI enabled solution on their existing infrastructure. Their team is satisfied with the performance of the solution as they are able to keep an eye on quality of operations inside the bakery, improve staff transparency and provide better experience to their customers. Some of the direct benefits pointed by them are high level of sanitation in kitchen, risks of non-compliance are significantly reduced and customer experience is enhanced.

Benefits

- Easy monitoring of cleanliness
- Improved staff transparency
- Satisfied customers
- Solution easily integrable with existing cameras
- Minimum human intervention
- Identifies non compliant activities
- Learns from pre-trained models & sends real time alerts

They have further managed to cut down the costs of the bakery that were earlier incurred with manual monitoring. They notified that the level of productivity of the staff has improved and can foresee best business growth through these direct benefits as compared to previous decade. The owners quoted that the cleanliness levels have significantly improved with lesser complaints from customers.

The atypical situation during the pandemic has forced the hospitality and food industry to enforce high level of hygiene to sustain their business. This is a complicated task in itself owing to the cost and workforce issues. Therefore, deployment of technology solution has become a mandate for the entire industry so that the process compliance can be remotely monitored. Vehant's hospitality analytics solution helps in eliminating the need of manual monitoring as it is designed to detect personal protective equipment, mopping and table cleaning detection, people count and social distancing. The daily operations are managed efficiently and free from risk.



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