

# A leading FMCG company improved production efficiency by 15% and reduced maintenance costs by 25% using IoT-based predictive analytics

## Background

A leading FMCG company, was experiencing frequent equipment failures leading to production delays and increased maintenance costs. The company needed a solution to predict equipment failures before they occurred to ensure uninterrupted production and reduce maintenance expenses.

## Objectives

- ♦ **Predict Equipment Failures:** Implement a system to foresee machinery breakdowns.
- ♦ **Reduce Maintenance Costs:** Lower the expenses related to emergency repairs.
- ♦ **Minimize Production Delays:** Ensure continuous production flow.

## Benefits

- ♦ **25% Lower Maintenance Costs:** The implementation of IoT sensors and predictive analytics led to fewer emergency repairs and replacements.
- ♦ **15% Increase in Production Efficiency:** Minimizing downtime allowed for a more consistent production flow, reducing delays.
- ♦ **20% Improvement in Maintenance Scheduling Accuracy:** AI-driven maintenance scheduling optimized resource allocation, leading to better timing and reduced manual intervention.

## Challenge

- ♦ **Frequent Equipment Failures:** Unexpected breakdowns causing production halts.
- ♦ **High Maintenance Costs:** Increased expenses due to emergency repairs and replacements.
- ♦ **Production Delays:** Inability to meet delivery deadlines affecting customer satisfaction.

## Approach

- ♦ Installed IoT sensors on critical machinery to collect real-time data on vibration, temperature, and operational parameters.
- ♦ Developed machine learning algorithms to analyze historical and real-time data, identifying patterns indicating potential failures.
- ♦ Used predictive analytics to forecast the remaining useful life of equipment components.
- ♦ Implemented an AI-driven maintenance scheduling system to plan preventive maintenance activities based on predictions.
- ♦ Created alerts and notifications for maintenance teams to act before failures occurred.

## About Straive

Straive helps operationalize the data → insights → knowledge → AI journey with its deep domain expertise, process knowledge, and tech and analytics capabilities. Serving a diverse range of industries-including science and research publishing, information services, EdTech, life sciences, and banking and financial services-Straive boasts a global client base spanning over 30 countries. Our strategically positioned resource pool operates across seven countries, including the Philippines, India, the United States, Nicaragua, Vietnam, the United Kingdom, and Singapore, where the company is headquartered.