



Case Study: Supply Chain

Leading pan-Asian Retailer: Automation Feasibility

'What if' scenario testing to evaluate automation solutions.

PROJECT SUMMARY

LOCATION

Asia

INDUSTRY

Modern Retail & Grocery

TMX's Simulation capabilities were enlisted to validate automation concepts from a potential vendor.

Client Challenges

An Asian-based retail company was seeking an **automation feasibility study** to confirm the preferred automation concepts met the agreed performance requirements. They also wanted to determine the implementation feasibility of the preferred vendor's solutions.

The retailer approached TMX to solve for this using simulation to validate the preferred vendor's claims on solution performance and identify design challenges and opportunities before making an investment.

Approach

TMX worked with the retailer to develop a simulation model of the preferred vendor's solution with a keen lens on understanding the operation as a whole. This involved considering metrics such as inbound profiles, order profiles, and SKU profiles and how these would interplay with the proposed automation.

When simulating the various workflows, the model measured hit rate and workstation utilization, determining that the vendor's assumptions were unrealistic. They would result in more robot movements, an inability to complete the required volume in the time available, and reduced labor savings associated with this solution.

TMX determined that the vendor did not fully understand the complexity of the flowthrough operations and therefore ascertained that the solution was not feasible in both an operational and financial sense. TMX determined that the solution was unworkable due to a lack of complete operational consideration, solution flaws, and incorrect assumptions.

Solution

TMX identified areas of improvement in the automation solution and therefore as part of the next scope of work, TMX will collaborate with the retailer to work on the future concept design.

The simulation proved benefits in:

- Testing the vendor's assumptions.
- **Identifying bottlenecks, limits and levers before implementation to avoid costly mistakes.**
- Calculating **labor savings** for business case validation. The vendor often provides the most optimistic labor saving estimate to reflect a positive business case so using simulation, TMX provided a more realistic view to help the client make an informed decision.

Transform your supply chain

TMX Transform is an end-to-end supply chain consultancy, providing expert advice and practical, innovative solutions to businesses globally.