

## Simulation to improve the Inbound Logistics Management of the Tuna Canned Industry: A Case Study

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**Abstract.** This research presents an improvement approach to the planning of inbound raw material transportation of a canned tuna company. The problem found that the number of days that the raw material received was lower than the planned amount of up to 164 days, or 67% of the total raw material receiving days. At present, the company has 8 trucks circulating for transporting fish from the port to the company's warehouse. The current system finds that the average number of cycles completed by the dump truck is 16 cycles per day. Average truck utility is 45.58%. The average fish temperature before dumping was -17.19 oC. The average time of delivery is 7.2021 hours. The author proposes a method for improving the company's inbound transportation of raw materials divided into four scenarios. The proposal scenario can help the company to reduce the number of used trucks from 8 cars to 6 cars without affecting the number of cycles of trucks that complete the dumping process per day. The average utility of truck usage has increased to 57.91%, resulting in a reduction in the cost of hiring drivers from 1,920,000 baht per year to 1,440,000 baht per year, or a 25% reduction from current expenses. The average time of delivery was reduced from 7.2021 hours to 5.7574 hours, or a decrease of 20.06%.

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