AMAZON.COM, INC – PERFORMANCE MEASUREMENT

Amazon FC Outbound Performance Measurement

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Amazon's project aims to increase trailer fill, reduce logistics costs, and simultaneously reduce environmental impact through improvement of Fulfillment Center (FC) outbound fluid loading labor management and performance measurement. Optimized labor allocation is the foundation for implementation of fair associate performance measurement processes, which is the long-term objective of this project. Currently, there are no standardized rates nor performance measurement processes to drive fluid loading accountability, unlike in other FC areas where associates are held accountable to standardized rates.

The Tauber team performed a series of labor experiments across four fulfillment centers in addition to data analysis, and stakeholder interviews. Experiment results indicated that there are opportunities to leverage labor allocation and performance measurement on the outbound dock to drive trailer fill improvement. Based on experiment results, the team recommended implementing a series of mechanisms to better prioritize trailer fill initiatives within FCs, optimize labor allocation, and to sustain truck savings. The immediate mechanism to address misaligned incentives is the integration of trailer fill metrics into FC leadership reports, for which the team gained buy-in. Long term, the team recommended deploying a streamlined fluid loading operations dashboard coupled with real-time utilization cameras as a mechanism to generate proactive alerts to dock managers, automating the QA function. To support this, the team delivered a document outlining business requirements for the development and integration of the real time utilization camera system. Short term, the team gained support to roll out trailer fill quality ambassadors (QAs) in key FC locations to drive adherence to standard work until the recommended technology can be deployed.

The immediate recommendation to better optimize labor allocation is to socialize across outbound teams a standardized fluid loading rate that the team calculated using industrial engineering time studies. Long term, the team supported another team's recommendations to install a centralized labor planning team that controls staffing decisions. The team also identified additional factors that impact labor management such as simultaneous truck departures and package flow rate variability. To address these findings, the team provided guidelines for additional experimentation to measure the impact of fewer simultaneous departures on trailer fill. By executing these recommendations, Amazon will develop the labor allocation processes, dock visibility technology, and aligned FC culture necessary to then implement fair associate performance measurement. These recommendations represent an estimated net savings of more than $25M in total system costs.