Analysis of Truck Queuing System for Broiler Chicken Arrivals at PT Ciomas Adisatwa Pabelan Unit Semarang Regency

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ABSTRACT

PT Ciomas Adisatwa is a company operating in the slaughter and meat processing sector, specifically broiler chickens. It has several units in Indonesia, one of which is the Pabelan Unit located in Semarang Regency. This research analyzes the truck queuing system for the arrival of live broiler chickens at the company. The purpose of this study or research is to gain an understanding of the structure and time performance of the queuing system as well as to minimize delays that occur due to queue accumulation. The use of quantitative analysis with a descriptive approach was employed in this method. The research results indicate that the truck queuing system for the arrival of live broiler chickens uses a Single Channel - Multi Phase queue structure or form. The characteristics of the queuing system are limited population, random arrival behavior with varying times, and inconsistent or irregular arrival patterns. The results of the service time performance analysis for broiler chicken arrivals show busy hours in the morning, especially between 06:00 and 07:00. The average waiting duration used during busy hours in the queue (Wq) is 38.57 minutes, while the average duration in the system (Ws) is 68.57 minutes, indicating not only high waiting time but also overall service time. This shows that the company needs to implement evaluation and improvement of the queuing system for broiler chicken arrivals in order to reduce waiting time and increase service efficiency.

Keywords: Queuing System, Chicken Truck, Broiler Chicken, Single Channel-Multi Phase, FCFS, Waiting Time