Universiti Teknologi MARA

Service Estimation System for MJ Motors Sdn Bhd using Queuing Theory

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STUDENT'S DECLARATION

I certify that this report and the project to which it refers is the product of my own work and that any idea or quotation from the work of other people, published or otherwise are fully acknowledged in accordance with the standard referring practices of the discipline.

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ABSTRACT

Queuing Theory is a mathematical formula that has been developed basically to determine the average waiting time spent in a specific line. In general, Queuing Theory has already been implemented widely in various types of industry such as food and beverages, health, and also for oil and gas industry. The main purpose of Service Estimation System is to predict the average service completion time for customers in MJ Motors Sdn. Bhd which is one of Honda authorized dealer in Malaysia. The problem is the customers who send their car and wait at the service center are not provided with the status of their cars especially during peak hours. It is related with the level of satisfaction among the customers which is one of the most crucial component in a business. To solve the problem faced by stakeholder, there are several objectives that have to be completed such as collect and analyze the business process and requirements, study and review on how to apply Queueing Theory, and design and develop the suggested system. The methodology used in completing this project is Waterfall model, and once each of the phases are finished, there are specific results delivered and objectives achieved. Next, the results and findings of every activities from the process of analyzing requirements until the development of the system are explained in details and the outcomes of this project matched the expected result, where at the end of this project, the identified problems are solved as the system is able to predict the estimated service completion time. Finally, the last part of this project is to conclude and summarizes the whole activities involved in the completion of Service Estimation System.

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