Universiti Teknologi MARA

An Analysis of Waiting Line at Ikan Bakar Parameswara, Umbai Using Queuing Theory Model

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Thesis submitted in fulfilment of the requirements
for Bachelor of Information Technology (Hons.)
Information Systems Engineering
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SUPERVISOR APPROVAL

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By

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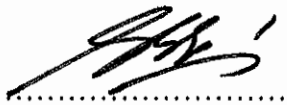
This thesis was prepared under the supervision of the project supervisor, Dr. Edzreena Edza Binti Odzaly. It was submitted to the Faculty of Computer and Mathematical Sciences and was accepted in partial fulfilment of the requirements for the degree of Bachelor of Information Technology (Hons.) Information Systems Engineering.

Approved by



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Dr. Edzreena Edza Binti Odzaly
Project Supervisor

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ABSTRACT

The main objective of this research is to analyze current waiting line system and suggest suitable Queuing Theory Model for Ikan Bakar Parameswara, Umbai restaurant. This research were guided by the research question which; is this restaurant has suitable current waiting time? An interview was conducted among restaurant owner and restaurant manager in order to identify the problem that restaurant faced. In addition, survey was distributed among the customer in order to gather the following data; satisfaction of waiting time that customer received, expected waiting time that customer expect and service quality about the restaurant a set of waiting time data. Later, a set of waiting time data was collected during busy day at the restaurant. There are 25 respondent for the survey data and 32 set of waiting time data consists of customer arrival time, food ordering start and finish, number of dish and drink ordering start and finish to simulate was taken during that day. Then, these data was analyzed using a simulation tool called Microsoft Excel. Based on the survey data gathered, the restaurant get positive feedback about their service. In addition to that, the analyzed data shows that customer expectation waiting time is lower than actual time they received. As a conclusion, the analysis has shown that the current model used is the most suitable model for queuing process at the restaurant. However, there is still a need to improve in term of the service quality time in order to fulfil the customer expectation.

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