

Abstract

There are two aims of this thesis. The first aim is to study how queueing theory can be applied to customer support to obtain information which gives an insight in how to improve the ratio of answered calls to incoming calls. The second aim is to create a model for predicting the ratio of answered calls to incoming calls.

The data has been collected from 26 of Mars to 1 of July 2012. To simulate the actual need for staffing, I have used the data to approximate the amount of incoming calls during a typical week and estimated how many employees that need to be answering incoming calls to obtain a chosen ratio of answered calls to incoming calls.

The models that are used for predicting the ratio of answered calls to incoming calls are two logistic regressions and one multiple logistic regression.

I found that the multiple logistic regression scored the best result, although it would be preferable to have more accurate data so that a better comparison of the models can be done. Queueing theory nevertheless has many advantages and applications in call centres.