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# A SIMULATION-BASED DECISION SUPPORT SYSTEM FOR WORKFORCE MANAGEMENT IN CALL CENTERS

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## Abstract

*In the last decade call centers have grown considerably and became an apparent part of national economies. This is mostly due to the fact that the customer satisfaction has become an important performance measure that drives the businesses today, and the call centers are the prevailing means for companies to communicate with their customers. One of the important issues faced by call center managers is the reduction of the total operational costs while ensuring high customer satisfaction. Therefore it is important to manage workforce efficiently and flexibly with respect to the dynamically changing call rates during the day. Queueing models that are used for workforce management in the literature are based on the strict Erlang assumptions which usually threaten the validity of the results. Simulation analysis is often used as an efficient methodology to overcome these limitations. In this study, a simulation based decision support system is developed for efficient workforce management and accurate performance estimation in a call center. The environment is tested in one of the largest call centers in Turkey and findings are discussed.*