

## عنوان مقاله:

Performance Measurement and Improvement of Healthcare Service Using Discrete Event Simulation in Bahir Dar Clinic

## محل انتشار:

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## خلاصه مقاله:

This paper deals with the service performance analysis and improvement using discrete event simulation has been used. The simulation of the health care has been done by arena master development 14-version software. The performance measurement for this study are patients output, service rate, service efficiency and it is directly related to waiting time of patients in each service station, work in progress, resource utilization. Simulation model was building for Bahir Dar clinic and then, prepared the proposed model for the system. Based on the simulation model run result, the output of the existing healthcare service system is low due to presence of bottlenecks on the service system. Moreover, the station with the largest queue and high resource utilization are identified as a bottleneck. The bottlenecks, which have identified are reduced by using reassigning the existing resources and add new resources and merging the similar services, which has under low resource utilization (nurses). Finally, the researchers have proposed a developed model from different scenarios. Moreover, the best scenario is developed by combining scenario 2 and 3. And then, service efficiency of the healthcare has increased by 9.86 percent, the work in progress (WIP) are reduced by 3 patients from the system and the service capacity of the system is increased 34 to 40 patients .per day due to the reduction of bottleneck stations

## کلمات کلیدی:

Discrete Event Simulation, performance analysis, WIP, model, Healthcare

## لینک ثابت مقاله در پایگاه سیویلیکا:

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