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SANSANEE CHATTRAKOOL : THE DEVELOPMENT OF
DATAWAREHOUSE FOR DECISION SUPPORT SYSTEM : CASE STUDY OF
QUEUEING SYSTEM IN NAKORNTHON HOSPITAL'S INTERNAL MEDICINE
WARD. THESIS ADVISORS : WORAWIT ISARANGKUL, M.S. PIYAPONG
SITTHIKONG, Ph.D. PONGSKORN SAIPETCII, Ph.D. 167 p. ISBN 974-663-327-9

This research presents datawarehouse applied to a decision support system based on data obtained from Nakornthon hospital. Nakornthon hospital has now built a database management system. However it is not exploited efficiently; due to the fact that there is no analyzing, summarizing, and extracting the source of data used. This research provides general reports involving patients, incomes, and reports for a decision support system in queuing systems. The reports aim to show the results if the number of doctors is proportionate to the number flow of patients. The reports are done in 2 time periods. Consequently, 2 groups of reports are given; for weekdays and for weekends. This research uses mathematical formula of 'Markov chains' on M/M/1 and M/M/C models to analyze queuing problems. Requested data are obtained by interviewing executive managers and officers, as well as giving questionnaires to patients. Most data for building datawarehouse were extracted from existing database of a hospital. Some data on document were also used. Datawarehouse was developed by Microsoft Access for linking data from existing database and by Microsoft Visual Basic for presenting Graphic User Interface (GUI) output.

The research results show operating results and incomes of the hospital in the past. Solutions of the queuing analyses system also show that it is crowded in some periods of time and that sometimes doctors do not have work during their working time. These results are supporting executive managers to make decisions and plan for recruiting doctors in the future. Moreover, the executive managers should consider other factors such as doctor's income to make a good decision. The development of datawarehouse for decision support system obviously shows the efficiency in extracting summary reports and bringing existing data to its best use.