

TESIS

# MODEL ANALISIS BIAYA - MANFAAT DARI ANTRIAN

STUDI SISTEM PELAYANAN KESEHATAN  
PADA DEPARTEMEN GIGI DAN MULUT  
RUMAH SAKIT TNI - AL DR. RAMELAN  
SURABAYA



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SUDIBYO

PROGRAM PASCASARJANA  
UNIVERSITAS AIRLANGGA  
SURABAYA  
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Untuk memperoleh Gelar Magister  
dalam Program Studi Ilmu Kesehatan Masyarakat  
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Oleh :

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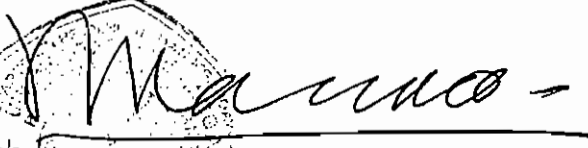
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## ABSTRACT

Basically, queueing theory is a study related to design and service operating system that can give information to design the servicing facility to function optimally.

A servicing system included servicing facility which consists of one or more service, where, whenever servicing facility is limited, there will be served customers that must be waiting to be served until causing a queue.

A queue condition economically will create two contradictive conditions, a party who gets loss and another who gets profit.

Through the analysis of cost and benefit, it will be examined by using a queue model which can explain how much is the benefit gives profit and how much is the loss be a burden to the cost that has be to be paid.

The outcome of this examination might give recommendation to the management whether the servicing system which has been arranged can give benefit or even causing a bigger cost, so the management can make decision or policy in carry out health care servicing system many years forward in accordance with the economic value.

The methodology was done based on the theory of cost and benefit analysis, then the counting was done by making model based on the variables of cost and benefit which turn up in the system.

The out come of the research can be made to model formulas from each variables of cost and benefit to get the loss and profit values is :

$$= \frac{1}{(1+r)^t} (A_1 + A_2 - B_{1,a} + B_{1,b} + C_1 - B_{2,a} + B_{2,b} + C_2 + B_3 - D_1 - D_2 - E_1 - E_2 - F - M - G_1 - G_2 - H + I + J + K + L).$$

The conclusion is that the model of cost and benefit analysis in a queue can be made based on cost function and benefit function following the time factor.

**Key terms** : queueing, cost and benefit analysis, servicing system, and model.

