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# Analysis of System and Service Quality on Users Satisfaction of the South Tangerang City Public Health Centre of Indonesia

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**ABSTRACT:** The research was conducted to analysis the effect of system and service quality on user satisfaction of the South Tangerang Public Health Center (PHC) in Indonesia. This is an investment that is not cheap, so to measure information system satisfaction, namely by evaluating the quality characteristics of the system (quality of service and quality of information), getting the support received by the system that gives effect to users satisfaction. The results provide net benefits from the information system. Quantitative methods and explanatory research that explain causal relationships between research variables through hypothesis testing. This study uses a survey method, namely data collection using a questionnaire by taking a sample of 63 respondents from 27 PHCs. To analyze the magnitude of influence by using parametric statistics to determine the value of the free variable and bound scores. The value of construct variability analysis of User Satisfaction that the PHC Management Information System provides the user with ease of operating the system by 59% has an effect on the information needs obtained from the PHCSIM which is timely while 41% of the other variables. Then the construct value of Benefits with constructs of Benefit variability that User Satisfaction on information needs that produce on time by 62% affects the information needed by management while 38% of other variables.

KEYWORDS: System, Information, Service, User Satisfaction, Public Health Centre, management information.

# I. INTRODUCTION

Information technology is now an object that produces information. The information must be quickly distributed and received by anyone in need. Besides, quality information is a major factor in making decisions that effectively and efficiently according to the needs that exist. In this activity has always influenced the need for information to support the organization's performance in generating a policy, decisions, and strategies for the success of the service, especially in this context is the field of health care information systems. In the community life was very attentive to the development of information technology today is very made good attention from all walks of life. Information and communication technologies offer many incredible opportunities to reduce errors in record-keeping and health services, improving the efficiency of health services need their care to health care [1,2].

PHC(PHC) south Tangerang City is a unit under the auspices of the Department of Health in the field of health care services to help people in the health field that is fast, precise and accurate, it makes the health center must apply information technology. South Tangerang city has a health center's 27 units, each PHC unit is expected to be integrated into one community health center information systems. The investment is not cheap in the implementation of information systems, therefore, because it is integrated it should be tested to determine the success of an information system that has been implemented need to be evaluated to determine the quality of systems, information and services [3].

The method developed by experts of information systems to measure the satisfaction of information systems, namely by assessing the characteristics desired by a system, the characteristics desired as the output system, the support received by the system, and system to give effect to the user and get results that benefit of the information system.

Model to measure the extent to which the successful implementation of the SIM Health Center in South Tangerang by examining user satisfaction-dimensional dimensions as that of DeLone and McLean that information quality, system quality, service quality, user satisfaction and net benefit [4].



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# Problem Formulation Research

The research that produced "The success Analysis Management Information System health centers in South Tangerang using a model of success [5] that refer to variables:

- a. Is the quality of information (information quality) has an influence on user satisfaction SIM PHC?
- b. Is the quality of the system (system quality) has an influence on user satisfaction SIM PHC?
- c. Is the quality of service (service quality) has an influence on user satisfaction SIM PHC? Is the information quality, system quality and service quality has an
- d. influence on user satisfaction (user satisfaction) and the net benefits (net benefit)?

# **Research purposes**

Objectives are:

- 1. Assessing the quality of the health center system of a SIM application?
- 2. Assessing the quality of information from the SIM application PHC?
- 3. Assessing the quality of service from the SIM application PHC?
- 4. Assessing user satisfaction towards the net benefits SIM application PHC?
- 5. Analyzing the variables that most influence on user satisfaction and the net benefits SIM PHC?

# II. LITERATURE REVIEW

#### **Definition of Information Systems**

The system is a group of elements that are integrated with a common purpose to achieve objectives, the system also is a network of procedures that are interconnected, gathered together to perform an activity or for a specific purpose by DeLone & McLean [5]. The information system is a system within the organization based on the needs pengelolah daily transactions, operational support, managerial and strategic activities of an organization and provide certain outside parties with the necessary reports [6].

# Effectiveness Measurement and Information Systems DeLone McLean

A very simple model and complete look at the causal relationship of the elements contained in this model. found six dimensions that can gauge the success and effectiveness of information systems. Measurements of each element is calculated independently, but the overall calculated between one affects the other [7].

Success and an information system can be represented qualitative characteristics of the information system itself (system quality), quality of the output of the system information (information quality), consumption of the output (use), user response information system (user satisfaction), the effect of information systems against user habits (individual impact), and its effect on the performance of the organization (organizational impact) [8] as Figure 1.

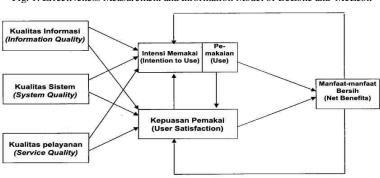


Fig. 1. Effectiveness Measurement and Information Model of DeLone and McLeon

The existing variables in the model of DeLone and McLean, next of these variables sought indicators that affect these variables, the indicators obtained is an indicator that has been proven by researchers earlier [7], for more details as following:



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- a. Quality Information (*information Quality*) The quality of information that is measured subjectively by the user, hereinafter referred to as the perception of information quality (perceived information quality).
- b. Quality Systems (*system Quality*) The quality of the performance of the system is the system that refers to how well the capabilities of the hardware, software, policies, procedures of information systems can provide the information needs of users.
- c. Quality of Service (Service Quality) A comparison of customer expectations with the perception of real services they receive.
  d. Usage (Use)

The user is using an application or information systems billing system itself.

e. User satisfaction (*user Satisfaction*)

Satisfaction of users of the system (user satisfaction) is the response and feedback that appear after using the information system users [5]. namely:

- Satisfaction Information (Repeat Purchase) The difference between the information required and the information received.
- Comprehensive satisfaction (Repeat Visit) All systems were presented and berintekrasi the satisfaction level of information services and systems. As well as benefits in the process received input output process.
- f. The net result Learned (*net Benefit*)
  - Net benefitsis applied information systems or keutungan produce net benefits are felt by individuals as well as organizations

# III. RESEARCH METHODS

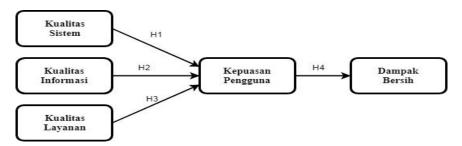
#### Hypothesis

The hypothesis can be stated as an answer to the formula pemasalah in research. In this research hypothesis is a hypothesis against the maximum benefit (Net Benefit) significantly by all variables.

The hypothesis is as follows:

- H1 : System quality effect on user satisfaction SIM South Tangerang PHC.
- H2 : Information quality affect the SIM user satisfaction of PHC.
- H3 : Quality of Service effect on user satisfaction PHCSIM.
- H4 : Quality Systems, Quality and Service Quality Information influence on User Satisfaction and net benefits PHCSIM.

#### Fig. 2. Relationship of hypothesis framework [2]



The research method used by the author is using quantitative methods. This research is explanatory. An explanatory research studies aimed to explain the causal relationship between the variables of research by testing the hypothesis [9]. This study provides evidence that was built through theoretical models and approaches [7].

The primary data obtained directly from the object of the research is a score of respondents (sample) to the questionnaire / questionnaire research. scale of measurement in the preparation of the questionnaire, researchers used a Likert Scale, which is a psychometric scale used in the questionnaire and is one technique that can be used in the evaluation of a program or policy planning. The questions in this section made using a scale of 1 to 5 to obtain data that is intervals and were given scores or grades: 5 =Strongly Agree (SS), 4 =Agree (S), 3 =Neutral (N), 2 =Less Agree (KS), 1 =Not Sejutu (TS). Secondary data were obtained from the information provided by the existing units or



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institutions such as documents or reference related to the focus of research, including documents that govern the procedures and working mechanisms PHCin South Tangerang.

# **Design Analysis and Testing Hypothesis**

# Validity Test Data

Valid or not an item can be determined by comparing the product moment correlation index (r count) to the critical value / probability. The validity of the test can be done by calculating the correlation between the data on each question with a total score. The formula will be obtained from the product moment correlation value, if the value of the correlation coefficient has a significance level of <0.05 ( $\alpha = 5\%$ ) or r count> r table (95% confidence level,  $\alpha = 0.05$ ), then the item question instruments used in the study is valid.

# Test Reliability

Reliability is a tool to measure the consistency of the data questionnaire which is an indicator of variables. The instrument used to measure the reliability is Cronbach's coefficient alpha ( $\alpha$ ). A variable is said to be reliable, if the results of  $\alpha > 60\%$ , or 0.6 and the results of  $\alpha < 60\%$  or 0.6 then unreliable [10].

# Linearity Test

Linearity test aims to determine whether the two variables have a linear relationship or not significantly.

# Hypothesis Testing

Testing this hypothesis using a significance level (significant level) of 5% and a confidence level (confidence level) 95% so that the statistics should be> 1.96, visible results of path coefficients and the t-statistic obtained from the bootstrapping process SmartPLS. Relations between the two constructs there are not significant, which on quality of service (service quality)  $\rightarrow$  user satisfaction (user satisfaction), while the relationship between the two constructs another significant result because the t-statistic> 1.96. Test the hypothesis that given the level of significance between the latent variables using the t-statistic calculation results of SmartPLS. To determine the value of the significance level then the bootstrapping process is carried out in a software SmartPLS [11].

# **Research Model**

Analyzer which is used in processing the data to test thehypothesis is to use the analysis Partial Least Square (PLS) testing with Structural Equation Model based components or PLS, is used SmartPLS V3.2.7 assistance program. PLS is a powerful technique for analyzing the structural equations with latent variables.

# IV. RESULTS AND DISCUSSION

#### Results

The following description of the results obtained by 60 ressponden be sampled as data to be processed.

#### **Descriptive Statistics of the Quality System**

Following the calculation of mean and standard deviation of Quality Systems (KS).

	Table 1. Descriptive Variables Quality System					
Ind	icator	mean	median	Min	Max	Standard Deviation
ŀ	KS1	4,300	4,000	2,000	5,000	0737
ŀ	KS2	3,950	4,000	2,000	5,000	0762
ŀ	KS3	4,100	4,000	2,000	5,000	0676
ŀ	KS4	4,117	4,000	2,000	5,000	0732
ŀ	KS5	3,700	4,000	2,000	5,000	0862

Source: processed researchers used Smart-PLS 3.2.8

Based on Table 1 Quality System variables in mind that the average mean is 4.03, the average respondent to respond "Agree" on the Quality System as well as indicators of a constituent. So it can be interpreted respondents felt that affect the Quality System User Satisfaction (K5).



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# **Descriptive Statistics Quality Information**

Following the calculation of mean and standard deviation of Information Quality (IQ).

Table 2. Descriptive Variables Quality Information					
Indicator	mean	median	Min	Max	standard Deviation
KI1	4,050	4,000	2,000	5,000	0693
ki2	3967	4,000	2,000	5,000	0730
KI3	4,233	4,000	2,000	5,000	0642

Source: processed researchers used Smart-PLS 3.2.8

Based on Table 2 Information Quality variable is known that the average mean is 4.08, the average respondent to respond "Agree" to the Information Quality and its constituent indicators. Information Quality affect user satisfaction. For the smallest standard deviation is ki2, the smaller the standard deviation value of the level difference from the mean data is also increasingly tight.

# **Descriptive statistics Quality of Service**

Following the calculation of mean and standard deviation of Quality of Service (TOS).

Table 3. Descriptive Variables Quality of Service						
Indicator	Mean	Median	Min	Max	Standard Deviation	
KL1	3,833	4,000	1,000	5,000	0934	
KL2	4,050	4,000	1,000	5,000	0805	
KL3	4,200	4,000	2,000	5,000	0600	
KL4	4,217	4,000	2,000	5,000	0580	
KL5	4,100	4,000	2,000	5,000	0624	

Source: processed researchers used Smart-PLS 3.2.8

Based on Service Quality variable Table 3 in mind that the average mean is 4.08, the average respondent to respond "Agree" on the Quality of Service along with its constituent indicators. Quality of Service User Satisfaction influence. For the smallest standard deviation is KL1, the smaller the standard deviation value of the level difference from the mean data is also increasingly tight.

# **Descriptive Statistics User Satisfaction**

Following the calculation of mean and standard deviation of User Satisfaction (KP).

Table 4. Descriptive Variables User Satisfaction						
Indicator	mean	median	Min	Max	standard Deviation	
KP1	3,950	4,000	2,000	5,000	0762	
KP2	3,917	4,000	2,000	5,000	0714	
KP3	3,883	4,000	2,000	5,000	0777	
KP4	3967	4,000	2,000	5,000	0774	
KP5	4,100	4,000	2,000	5,000	0723	

Source: processed researchers used Smart-PLS 3.2.8

User Satisfaction unknown variables that the average mean was 3.9 rounded to 4, the average respondent to respond "Agreed" to kepusan users, together with their constituent indicators. So it can be interpreted respondents felt that affect User Satisfaction Net Benefit. For the smallest standard deviation is KP3, the smaller the standard deviation value of the level difference from the mean data is also increasingly tight.



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# **Descriptive Statistics Net Benefits**

Following the calculation of mean and standard deviation of Net Benefit (MB).

Table 5. Descriptive Variables Net Benefits					
Indicator	mean	median	Min	Max	standard Deviation
MB1	3.917	4,000	1,000	5,000	0881
MB2	4.033	4,000	2,000	5,000	0752
MB3	4.067	4,000	1,000	5,000	0704
MB4	3.917	4,000	1,000	5,000	0802

Source: processed researchers used Smart-PLS 3.2.8

Based on Table 5 overall responder to variable benefits Net research note that the average mean is 3.9 rounded 4 then the response "Agree" to the satisfaction of users and their constituent indicators. Net benefits SIM affect health centers, speed up decision and completion of tasks. For the smallest standard deviation is MB1 and MB4, the smaller the standard deviation value of the level difference from the mean data is also increasingly meeting

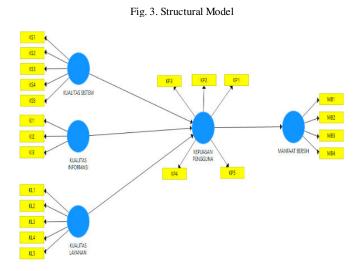
#### **Conceptualization Model**

Researchers get a model Influence Analysis System Quality, Information Quality and Quality of Service User Satisfaction and Benefits SIM South Tangerang City Health Center. Where in each variable consists of indicators so as to form into a construct. The construct of Quality System consists of indicators KS1, KS2, KS3, KS4 and KS5. The construct of Quality Information consists of indicators KI1, ki2 and KI3.

The construct of Quality of Service consists of indicators KL1, KL2, KL3, KL4, and KL5. Constructs User Satisfaction consists of indicators KP1, KP2, KP3, KP4 and KP5. Constructs Net Benefits consist of indicators MB1, MB2, MB3 and MB4.

#### Structural Model

In this study, the authors use a reflective model analysis method, which begins with the arrow toward konstruknya variable, as in Figure 3 using data processing software Smart PLS 3.2.8



# Analysis of Structural Model

Analysis of Measurement Model (Outer Model), analysis Structural Model (Inner Model) and Hypothesis Testing a structural model analysis. To ensure that the used Measurement eligible to be measurement (valid and reliable) called outer analysis models. While analysis of the inner workings of the model / structural analysis models to ensure that the structural model is built robust and accurate. For hypothesis testing is done by looking at the probability of its value and its t-statistic. For a probability value, p-value with an alpha of 5% is less than t-table.



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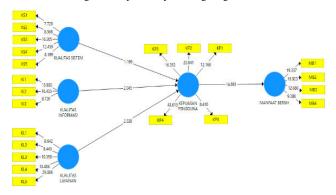
#### Analysis of Measurement Model (Outer Model)

Relations between latent variables with the indicators or it can be said that the outer model defines how each indicator relates to the latent variable called Outer Model analysis. In the measurement model consists of Validity, Test Reliability and Significance of indicators and constructs involved.

#### a. Validity test

Two-factor Model to Test Validity Outer namely Convergent Validity is the value of the loading factor on the latent variables with the indicators to measure the correlation item to construct research questions. Rule of thumb for the loading factor is> 0.70 for confirmatory research and> 0.60 for exploratory research. Thus the expected value if the value of the loading factor correlates well is above> 0.7 [12]. The output on models that have been created and can be seen in Figure 4 where the results on Table 6.

Fig. 4. Output Analysis Weighting Scheme



#### Table 6.Loading Factor Analysis Weighting Scheme

variables	Indicator	Outer Loading	Criteria	Information
Quality	KS1	0,703	> 0.70	valid
Systems	KS2	.677	> 0.70	Invalid
	KS3	0,794	> 0.70	valid
	KS4	0.802	> 0.70	valid
	KS5	0.685	> 0.70	Invalid
Quality	KI1	.850	> 0.70	valid
Information	ki2	0.821	> 0.70	valid
	KI3	0.776	> 0.70	valid
Quality of	KL1	0.686	> 0.70	Invalid
Service	KL2	0.739	> 0.70	valid
	KL3	.807	> 0.70	valid
	KL4	0.874	> 0.70	valid
	KL5	0.887	> 0.70	valid
User	KP1	0.799	> 0.70	valid
satisfaction	KP2	0,885	> 0.70	valid
	KP3	.842	> 0.70	valid
	KP4	0926	> 0.70	valid
	KP5	0.764	> 0.70	valid
Net	MB1	0.866	> 0.70	valid
benefits	MB2	0.828	> 0.70	valid
	MB3	.790	> 0.70	valid
	MB4	0.742	> 0.70	valid

Source: processed researchers used Smart-PLS 3.2.8

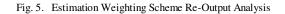
The results of analysis show that the output indicator <0.7 is KS2 namely 0677, KS5 namely 0.685 and 0.686 KL1 which then KS2, KS5, and KL1 must be removed from the model and a re-calculation. The following re-estimation picture output 4.3 Weighting Analysis Scheme.



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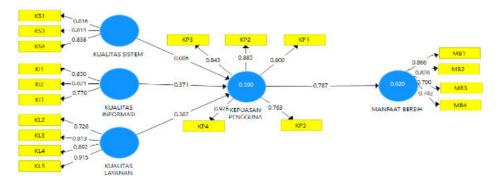


 Table 7. Estimates of the Loading Factor Analysis Weighting Scheme

Variables	Indicator	Outer Loading	<b>Criteria</b>	Information
Quality Systems	KS1	0,816	> 0.70	valid
	KS3	0.811	> 0.70	valid
	KS4	0.838	> 0.70	valid
Quality	KI1	0.850	> 0.70	valid
Information	ki2	0.821	> 0.70	valid
	ki2	0.776	> 0.70	valid
Quality of	KL2	0.726	> 0.70	valid
Service	KL3	0,813	> 0.70	valid
	KL4	0.892	> 0.70	valid
	KL5	0.915	> 0.70	valid
User satisfaction	KP1	0,800	> 0.70	valid
	KP2	0,885	> 0.70	valid
	KP3	0.843	> 0.70	valid
	KP4	0.926	> 0.70	valid
	KP5	0.763	> 0.70	valid
Net benefits	MB1	0.866	> 0.70	valid
Net benefits	MB1	0.866	> 0.70	valid
	MB2	0.828	> 0.70	valid
	MB3	0.790	> 0.70	valid
1 <u></u> 1 <u>C</u>	MB4	0.742	> 0.70	valid

Source: processed researchers used Smart-PLS 3.2.8

The results have met the Convergent Validity for all values above the loading factor> 0.7. Thus it can be said that Convergent Validity of the construct of Quality Systems, Quality of Information, Quality of Service, User Satisfaction and Benefits Clean is Valid. Next is to assess the Average Variance Extracted (AVE) AVE values are used as a benchmark to assess the convergent validity (Convergen validity) is> 0.50.

Table 8. Validity of Test Results				
Item Average Variance Extracted (A				
Quality Systems	0.675			
Quality Information	0.667			
Quality of Service	0.706			
User satisfaction	0.715			
Net benefits	0.653			

Source: processed researchers used Smart-PLS 3.2.8

From Figure 5 above calculation results obtained that all variables are eligible Convergen validity because it has a value of RD> 0:50 so that its problem associated with the discriminant validity [8]. Discriminant validity test is done to



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see if there is a high correlation between valiabel constructs, tested by looking for cross loading value for each variable value must be> 0.70. From the results of data processing for all indicators qualified discriminant validity because of> 0.70. Another method that can be used to test the discriminant validity is by looking at the table of cross loading of each indicator against its constructas the following table.

	Quality		ue Cross Loadi	•	
Indicator	Quality	Quality Information	Quality of	User	Net benefits
	Systems		Service	satisfaction	
KS1	0,816	0,455	0.6260	0.453	0.499
KS3	0.811	0.503	0,5009	0.540	0,526
KS4	0,836	0.707	0,629	0.510	0.465
KI1	0.555	0.850	0.591	0.608	0.672
ki2	0.510	0.821	0.603	0.642	0.527
KI3	0.627	0.776	0.552	0.448	0.502
KL2	0.669	0.446	0.726	0.505	0.497
KL3	0.428	0.594	0,813	0.545	0.591
KL4	0.668	0,622	0.892	0.591	0.634
KL5	0.633	0.706	0.915	0.724	0,745
KP1	0.505	0.554	0.651	0,800	0.619
KP2	0.553	0.689	0.587	0,885	0.667
KP3	0.500	.0528	0.591	0.843	0.675
KP4	0.560	0.671	0,625	0.926	0.727
KP5	0.468	0.528	0.560	0.763	0.634
MB1	0.468	0.555	0.576	0621	0.866
MB2	0.570	0.706	0.665	0.725	0.828
MB3	0,488	0.450	0.638	0.691	0.790
MB4	0.398	0.534	0,488	0.440	0.742

Source: processed researchers used Smart-PLS 3.2.8

Based on Table 9 above it can be seen that each indicator has a loading factor greater value when linked with endogennya each construct compared to other endogenous constructs. This shows that each indicator has the right to explain the endogenous constructs each and prove that there can be problems with discriminant validity, or could be valid of all the indicators.

#### b. Test Reliability

Reliability testing done to prove the accuracy, consistency and accuracy of instruments to measure the construct according to Ghozali and Latan [12]. In PLS-SEM to measure the reliability of a construct with reflexive indicators can be done in two ways, namely by Cronbach's alpha values> 0.70 and Composite Reliability (CR) with values> 0.70. Rule of thumb usual used to assess the reliability of composite reliability construct value> 0.70.

Table 10. Results of Test Reliability					
Item	Cronbach's Alpha	Composite Reliability			
Quality Systems	0.760	0,862			
Quality Information	0,753	0.857			
Quality of Service	0.858	0.905			
User satisfaction	0.899	0.926			
Net benefits	0.825	0.882			

Source: processed researchers used Smart-PLS 3.2.8

Table 10 shows the results of the construct of Quality Systems, Information Quality and Quality of Service, User Satisfaction and Benefits of Clean qualified by Cronbach's alpha and Composite Reliabity (CR)> 0.70 so it can be expressed reliably.



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# Analysis of Structural Model (Inner Model)

Inner Evaluation Model is a structural model aims to predict whether relations between the latent variables have the construct can be evaluated by looking at the magnitude of the percentage of variance explained by looking at R-Square. Structural model in PLS evaluated using R2 to construct dependent coefficient t-value path or each path for test of significance between the constructs in the structural model. Measuring the level of variation change of the independent variable on the dependent variable to measure the value of R Square. Structural models (inner model) is a pattern relationship research variables. The evaluation of the structural model is to look coefficients between variables and the coefficient of determination (R2). The value of R Square close to 1, the criteria thresholds are divided into three classifications, namely 0.67 = substantially 0.33 = moderate, and 0.19 = weak. Structural models were evaluated using the R-square, and the Q-square goodness of fit (GOF).

a. Evaluation of R-Square (coefficient of determination)

Inner evaluation is the first model R-Square (coefficient of determination), the following analytical results using SmartPLS 3.2.8.

Table 11. Results of R-Square				
R Square	R Square Adjusted			
.590	.569			
.620	.613			
	R Square .590			

Source: processed researchers used Smart-PLS 3.2.8

Based on the pictures 11, the value on the construct of User Satisfaction of 0.590 which means that the variability construct User Satisfaction which can be explained that the SIM PHC provides ease of operation of the system to the user by 59% and therefore contributes to the needs of the information obtained from the SIM PHC on time, while 41% described by other variables not included in the research model. Then the value of the construct of Benefits Net of 0.620 which means that the variability construct Benefit Net can be explained by the User Satisfaction of the needs of the information generated from the SIM PHC just in time by 62% and therefore contributes to the needed information management while 38% is explained by other variables not included in the research model.

#### b. Evaluation of Q-Square (Predictive Relevance)

The evaluation of inner the second model is the Q-Square (Predictive Relevance) conducted by the equation Q2 = 1 - (1 - R1 2) (1 - R2 2) wherein R1 2 R2 2 is R-Square variable endogenous in our model. Interpretation of Q2 equal to the total coefficient of determination on the path analysis. Thus obtained Q2 57 = 1 - (1 to 0.590) (1-.620) = 0.844. Based on the calculation of the value of Q2 (prediction relevance) obtained 0.844> 0 then categorized the degree of fit with the data models.

#### c. Evaluation of Goodness of Fit (GoF)

Inner evaluation The third model is the value of Goodness of Fit (GoF). GoF value calculated by the equation where Com is the average communalities while R2 is the average value of R2. The results of calculation in the Table 12.

Table 12. Average Communality and R Square						
variables	Communality	R Square				
Quality Systems	0.675					
Quality Information	0.667					
Quality of Service	0.706					
User satisfaction	0.715	0.590				
Net benefits	0.653	.0620				
Average	0.683	0.605				

Source: processed researchers used Smart-PLS 3.2.8

Based on the above Table 12 Communality the average value is 0.683, while R2 is 0.605, so the GoF =  $\sqrt{(0.683 \times 0.605)} = 0.642$ . value GoF64% can be categorized as large GoF, so it is stated that model established is substantial.

#### **Hypothesis Testing**

The hypothesis testing showed the path coefficient value in the level of significance. Significance test was performed using the sampled (resampling) to perform bootstrapping method.



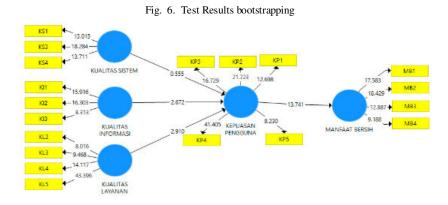
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Size of hypothesis significance can use the comparison table T and T-statistic. If the value of the T-statistic greater than the T-table, it means that the hypothesis supported or accepted. In the rule of thumbs PLS for 95 percent confidence level (alpha 5 percent), the value of the T-table for a two-tailed hypothesis (two-tailed) was more than 1.96 and for the hypothesis of the tail (one-tailed) is more than 1, 64.

In hypothesis testing for regression model, degrees of freedom or df (degree of freedom) is determined by the equation (df = n - k). Where n is a lot of observations and k is the number of variables (independent and dependent). Therefore, the obtained value of df = 60-5 = 55 and  $\alpha = 5\%$ . Then the value of the T-table becomes 1.69. Number of bootstrap used in this study was 5000, the selected type of bootstrapping is no sign changes, test type andconfidene interval One method used is tailed with significance level of 0.05 (5%) and biascorrected and accelerated bootstrap [11]. Here are the results of testing.



Based on the above results, it can be seen that all of the lines has met significant figures in the CI 95% (1.96). It is a requirement on the evaluation of the loading factor is carried out to assess the significance of latent constructs with its constructs.

Table 13. Testing Results Values bootstrapping					
Item	Original Sample (0)	Sample Mean	Standard Deviation (STDEV)	T Statistics (o / STDEV)	Pvalues
Quality System > User Satisfaction	0.086	0.109	0,154	0.555	0.290
Information Quality> User Satisfaction	0.371	0,363	0,139	2.672	0,004
Quality of Service > User Satisfaction	0.387	0.380	0.133	2,910	0,002
User satisfaction > Net Benefit	0.787	0.797	0.057	13.741	0,000

Source: processed researchers used Smart-PLS 3.2.8

Values bootstrapping test results seen in Figure 6 shows the Path Coefficients and t-statistic value, it can be concluded from the test results of each hypothesis is as follows:

- a. Testing the hypothesis 1 on the structural model states that the Quality System is at 0.086 with a significance of less than 5% that indicated by the value of t-statistics 0.555 smaller than t-table value of 1.69. The original value of positive samples indicated that the quality system is no positive effect on user satisfaction. Based on the regression results it can be concluded that the hypothesis 1 is not supported.
- b. Hypothesis testing on the structural model states that the quality of information is a significant effect on User Satisfaction. Hypothesis test results showed the path between the User Satisfaction Quality Information Line has a coefficient of 0.37 (37%), which means that the positive effect on the Information Quality of User Experience, the higher the Information Quality User Satisfaction. Values construct T-statistic of  $2.67 \ge 1.69$ , indicates that the quality of information is a significant effect on user satisfaction, it can be stated that the second hypothesis is supported or accepted.



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- c. Shows the results of hypothesis testing path between Quality of Service with the User Satisfaction has a coefficient of 0.38 Strip (38%), which means that the positive effect on the Quality of Service User Satisfaction, the higher the higher Quality of Service User Satisfaction. Value T-statistic construct by  $2.91 \ge 1.69$ , indicates that a significant effect on Quality of Service User Satisfaction, it can be stated that the third hypothesis is supported or accepted.
- d. Testing the hypothesis 4 in Figure 4.8 structural model states that the User Satisfaction significant impact on Net Benefits. Hypothesis test results showed the path between the User Satisfaction Net Benefit has a coefficient of 0.78 Strip (78%), which means that the positive effect on the User Satisfaction Net Benefit, the higher the higher the User Satisfaction Net Benefit. Value T-statistic of 13.74 constructs ≥ 1.69, indicates that the User Satisfaction Net Benefit significantly influence, it can be stated that the hypothesis 4 is supported or accepted.

#### VI. CONCLUSION

- 1. The value of t-statistics only amounted to 0.555 which is smaller than t-table value is 1.69. Then the system does not affect the quality of user satisfaction as demonstrated by the significant value
- 2. Information quality affect the User Satisfaction is positively and significantly associated with the original sample values of 0.371 and a significance value *t-statistic*amounted to 2.672 greater than t-table value is 1.69. Thus thehigher the quality of the SIM Application Information Health Center of South Tangerang city, the higher the user satisfaction.
- 3. Quality of Service User Satisfaction affect positively and significantly with the original sample values of 0.387 and a significance value *t-statistic*amounted to 2,910 bigger than t-table value is 1.69. Thus the higher the SIM Application Service Quality Health Center South Tangerang city, the higher the user satisfaction
- 4. User Satisfaction Net Benefit positively influence and significant to the result-value of 62% is considered to be seriously affected by the benefits gained by the organization / institution and considered successful.
- 5. Rated *Rsquare* for variable user satisfaction is influenced by variables System Quality, Information Quality and Quality of Service in this research that is equal to 0.590 or 59%. This proves that users get the satisfaction variables other influences of variables outside of the study by 41%.

The results of this research was satisfaction in the use of the system has a very significant influence on the Net Benefits, due to the use of satisfaction is significantly positive or negative feelings of system users are indicated by a feeling of like or dislike someone on PHC SIM Application in South Tangerang City.

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