Priority Attribute Enhancement Quality Individual Health Efforts (IHE) according to the Service Quality Model at Public Health Centers (PHC) in the Sarolangun Regency, Jambi Province

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Abstract

Health services is a process or intangible activity that occurs with exist and interaction between customers and providers of service or source power physique another sector. Quality service health can be measured based on the Service Quality (Servqual) model with compare performance service through attribute relevant services, according to 5 dimensions of quality service namely tangible, reliability, responsiveness, assurance, and empathy. The research aims to investigate quality services and determine priority attributes of Individual Health Efforts (IHE) at all Public Health Centers (PHC) at Sarolangun Regency in 2019. The concept of Servqual dimensions is used to determine the quality of services and Importance-Performance Analysis (IPA) is to determine priority attributes of IHE. The total sample based on the formula Sugiyono is as many as 576 people. The result showed that the service quality of IHE was considered good, except for the tangible dimension where 46.98% of respondents measure was not good. IPA analysis shows that all Servqual dimensions are priority attributes to improve the quality of IHE at PHC in Sarolangun Regency, especially the tangible dimensions that emphasize the cleanliness of public facilities and the availability of medical devices and information services. However, the existence of other Servqual dimensions as priority attributes means that infrastructure development is not enough without strengthening quality from the human resources in public health services, and this is proven in this study. It is important for the Sarolangun Regency government to prioritize the development facilities. It is important for the Sarolangun Regency government to consider that infrastructure development must be accompanied by human development.

Keywords
Health Services, Service Quality, Importance Performance Analysis, Individual Health Effort, Public Health Centre

1.Introduction
The Public Health Center (PHC) is one of the important health facilities services in Indonesia with availability reaching to rural areas. PHC has a function as organizer Public Health Effort (PHE) and Individual Health Efforts (IHE) level first to reach the objective development of health in their work area (Azwar 2010; Ministry of Health 2014). PHC as organization service health forefront provided government for reach public through service primary health

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(gatekeeper), functioning build role as well as public at a time give service quality primary health, comprehensive and integrated in the work area (Ministry of Health 2014) .

Individual Health Efforts (IHE) is one function of public health center through maintenance service designated health for improvement, prevention , healing disease, reduction suffering consequence disease and recovery health. More IHE activities going on inside building health center which consists of on service take care stay, treat road, service laboratory clinic, examination pregnancy, childbirth, service tool contraception and so on (Ministry of Health RI 2019).

As technology advanced and public demands in services, including health services, the organizing unit service public must clean up with spirit give service best and fulfilling hope society. Of course not easy for make it happen, where many complaint conveyed society with direct nor through mass media, and if no quick follow up, then will impact bad to government and generate no trust from society (Ministry of Administrative Reform 2017) . Especially in health services, as complex field, full controversy and contradiction with various progress modern technology and medicine, service health still burdened with inefficiencies, errors, limitations source power and problems another threatening accessibility and security patient (Tolga Taner et al. 2007).

Health service as one embodiment sector service is a process or intangible activities in interactions between customers and providers service, can be measured through the Service Quality Model (Servqual). Service quality is vital to all organizations since it drives their marketing and financial performance. Service quality is a critical element of competitiveness and acts as a source for achieving a competitive advantage (Smith et al. 2007). It is defined as the difference between customers' expectations of service and perceived service (Parasuraman et al. 1988). Moreover, it enhances customer satisfaction, motivates the intention to return, and boosts recommendations (Nadiri et al. 2009).

The Servqual model of Parasuraman et al. (1985) is one of the highly employed Servqual assessment tools to measure the quality of products or services. This model compare between performance services on the attributes relevant with ideal/ perfect standard for each attribute services. When performance in accordance or exceed standard, then perception on quality service whole will positive and vice versa. This model analyze the gap between two variable principal, that is expected service and perceived service. Servqual is a multidimensional construct that is measured using the five (5) dimensions of Tangible (TG), Reliability (RL), Responsiveness (RS), Assurance (AS) and Empathy (EP). Tangible refers to the physical facilities, equipment, and appearance of personnel offering the service; Reliability is the ability to provide the promised service correctly and consistently; Responsiveness is the enthusiasm and prompt action to assist customer requests and problems; Empathy refers to the individualized attention and care provided to the costumers (Parasuraman et al. 1988). Measurement gap relationship variable tree between expected service and perceived service from quality service can analyzed according Importance-Performance Analysis (IPA) method. This technique can used in determine priority enhancement quality service (Tjiptono 2012) .

Sarolangun Regency as one area government in Jambi Province has vision development health as form embodiment obligation government in protect right base citizen for life healthy. Embodied efforts through improving quality health services to the community with the construction of 16 Community Health Centers that reach all people in Sarolangun Regency. Certainly very necessary to accelerate the development of health with priority enhancement of quality service health according to the aspects of services needed by society. For that, this study aims to evaluate quality services Individual Health Efforts (IHE) at Public Health Centre (PHC) in Sarolangun Regency using the Servqual method against tangible dimensions, reliability, responsiveness, assurance, and empathy, and then determine attribute priority from dimensions using Importance-Performance Analysis (IPA).

1.1 Objectives

This study aims to evaluate quality services Individual Health Effort (IHE) using concept of the Servqual Model at Public Health Centers (PHC) according to dimensions of tangible, reliability, responsiveness, assurance and empathy, and then determine attribute priority from dimensions using Importance-Performance Analysis (IPA).

2. Literature Reviews

Individual Health Effort (IHE)

Public Health Center (PHC) is facility health service organizing of Public Health Effort (PHE) and Individual Health Efforts (IHE) levels first. Individual Health Efforts (IHE) is activities service designated health for improvement,

prevention, healing disease, reduction suffering consequence disease and recovery health individual. In maintenance IHE services, PHC need competence and authority power health certain for doctors, nurses and midwives, with implementation service can held with pattern group islands/clusters and/or service health move of Public Health Effort (PHE) and Individual Health Efforts (IHE) or increase accessibility (Ministry of Health RI 2014).

Service Quality
Parasuraman et al. (1985) developed the service quality can be measured by a multi-item scale designed to measure customer expectations and perceptions, as well as the gap between the two on the five main dimensions of service quality (reliability, responsiveness, assurance, empathy, and physical evidence). The five main dimensions are translated into detailed attributes for the variables of expectations and perceptions, arranged in questions based on a Likert scale (Parasuraman et al. 1985; Mardjiono and Eko 2009).

Importance-Performance Analysis (IPA)
Importance-Performance Analysis (IPA) is used as a practical and straightforward technique for assessing user satisfaction with various attributes and identifying managerial actions to enhance service quality. IPA was first proposed in 1977 by Martillah and James, 1977 (Martilla JA and James JC, 1977) . The Importance-Performance Analysis (IPA) has been developed and widely utilized to understand customer satisfaction and prioritize provision strategies based on the assumption that satisfaction is resultant from a preference (perceived importance) for a service and a relevant judgment of its performance (Hua and Chen 2019) .

3. Methods
3.1 Research Design
This is study quantitative cross sectional design as studies evaluation to service health in Sarolangun Regency. Study done all over Public Health Center (PHC) in Sarolangun Regency with a total of 16 PHC.

3.2 Population and Sample
Population study is people in the work area Public Health Center (PHC) with average number of patient visits (out and in patien in last 1 year). Sample is arriving patients visit to Public Health Center (PHC), with retrieval technique sample in a manner nonprobability based on criteria:
1. Sample take care way, is arriving patients visited and recorded in the inpatient unit road PHC with visit more from 1 time.
2. Sample take care stay, is patient at the time data collection currently get maintenance at least 1x24 hours.

Calculation minimum sample using formula Sugiyono (1999), with level precision 5% and rate of confidence 95%. Amount sample plus by 10% of amount minimum sample is 576 people.

3.3 Measurement definitions
Measurement quality service Individual Health Effort (IHE) according to Public Health Service (PHC) Sarolangun Regency based on indicator Servqual, measured through dimensions tangibles (evidence physical), reliability (reliability), responsiveness (power responsiveness), assurance (guarantee), and empathy (care) (Parasuraman et al. 1988). For tangibles dimensions are measured through 5 attributes, reliability 5 attributes, responsiveness 5 attributes, assurance 4 attributes, and empathy 5 attributes, such as shown in table 1.

Table 1. Service quality attributes

Questions	No	Items	Latent variables
Tangibles	1	Tangibles 1	Neatness appearance officer
	2	Tangibles 2	Cleanliness tool inspection
	3	Tangibles 3	Availability information service
	4	Tangibles 4	Cleanliness room Wait
	5	Tangibles 5	Cleanliness of public toilets

reliability	6 7 8 9 10	Reliability 1 reliability 2 reliability 3 reliability 4 reliability 5	Give service in accordance with information _ Can dependable in handle problem patient Give service in a manner Good started from registration Officer inspect in accordance promised time _ Keep notes / documents with Good
Responsiveness	11 12 13 14	Responsiveness 1 Responsiveness 2 Responsiveness 3 Responsiveness 4	Officer inform about certainty time service prompt service _ for patient Willingness officer For help patient Officer willing give information with fast
Dimension Assurance	15 16 17 18	Assurance 1 Assurance 2 Assurance 3 Assurance 4	Officer cultivate trust _ to patient Skills officer in handle complaint patient give a sense of security Officer consistent behave polite and friendly Officer capable answer question patient
Dimension of Empathy	19 20 21 22 23	Empathy 1 Empathy 2 Empathy 3 Empathy 4 Empathy 5	Attention doctor in handle complaint patient Officer treat pasein in a manner full attention Officer truly prioritize interest patient Officer understand need treatment patient Opening hours operational Public health center

3.4 Data Analysis

Univariate Analysis

Univariate data analysis was used to determine the frequency distribution of each dimension of Service Quality (Servqual) using an ordinal scale, with good and not good categories. Good categories if the average value from every questions ≥ median, and categories not good if < median. 5 dimensions of service quality related to service quality of person's services in Public Health Service (PHC) including tangibles, reliability, responsiveness, assurance and empathy. Measurements on each dimension use a Likert scale with the lowest value of 1 and the highest 4 using a questionnaire that has been tested for its validity and reliability.

Importance of Performance Analysts (IPA)

Importance Performance Analysis (IPA) is used to determine the priority attributes of Service Quality (Servqual) development Individual Health Effort (IHE). IPA used to introduce a technique for making planning decisions for health services. IPA is a key analytical method used by policy makers and provides a chart with four quadrants (Fig. 1) suggesting where to take government actions according to the performance and importance scores given to each attribute. The fit/gap analysis was conducted to analyze the service quality attribute preceded by determining the comparison of the average value of perceived service quality for performance and the average service quality is considered important for importance . The average score of each attribute measuring service quality dimensions will be positioned into the importance-performance matrix in the form of IPA chart, where the flat axis (X) is filled with the perceived service quality score and the vertical axis (Y) is filled with the expectation score. The gap was calculated according to the following formula:

$$\text{Gap} = \text{Performance score} - \text{Importance score}$$

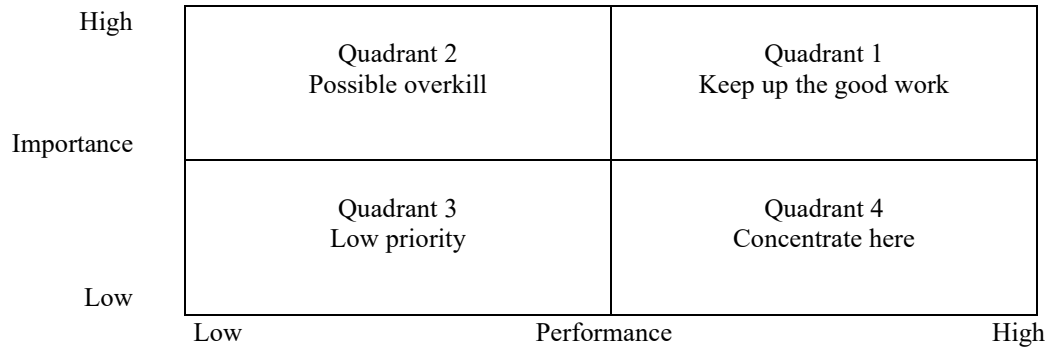

Figure 1. The standard IPA chart (Martilla JA and James JC, 1977)

4. Data Collection

Data collection techniques through interview to respondent use completed questionnaire tested its validity and reliability. Questionnaire arranged in a manner structured with question closed to dimensions quality service service health .

5. Results and Discussion

5.1. Distribution Frequency Dimensions Service Quality (Servqual) in Individual Health Efforts (IHE)

Research results show almost all deep Servqual dimensions determine quality service services at Individual Health Efforts (IHE) at the Public Health Centre (PHC) in Sarolangun Regency rated has well by > 90% of respondents, except tangible dimension (evidence directly) with the percentage of 46.98% stated not good. Percentage highest is on the dimension of responsiveness (98.27%), followed assurance dimensions (96.89%), dimensions empathy (96.03%), and reliability dimensions (90.16%) (table 2).

Table 2. Performance Dimensions Quality Individual Health Effort (IHE) at Public Health Centers (PHC) in Sarolangun Regency in 2019

No	Statement Variable Element Quality Service	Quality Performance Category Service			
		Not Good		Good	
		n	%	n	%
1	Tangible	272	46.98	307	53.02
2	Reliability	57	9.84	522	90,16
3	Responsiveness	10	1.73	569	98.27
4	Assurance	18	3,11	561	96.89
5	Empathy	23	3.97	556	96.03

On the tangible dimension, almost all element stated well by the respondents with percentage >90%. Neatness officer is element with mark the highest (98.79%), meanwhile percentage lowest namely the cleanliness of public toilets (57.34%). On the dimension of reliability, all element has rated good with percentage >90% with percentage highest lies in service has in accordance with those who were informed (99.48%). The same assessment on the dimension of responsiveness where all element has rated good even on willingness help patient get evaluation good from all respondents (100%).

On the assurance dimension, all elements also get marked good even found one question with a percentage of 100% that is on the elements officer capable answer question patient. Meanwhile, on dimensions of empathy, the elements with the percentage highest get evaluation well by the respondents is officer understands the need of treatment patients (99.83%) (table 3).

Table 3. Element Performance Shapers Dimensions Service Quality at Public Health Centers (PHC) in Sarolangun in 2019

No	Dimensions	Quality Performance Category Service			
		Not Good		Good	
		n	%	n	%
A	Tangible				
1	Tangibles 1	7	1.21	572	98.79
2	Tangibles 2	19	3,28	560	96.72
3	Tangibles 3	12	2.07	567	97,93
4	Tangibles 4	51	8,81	528	91.19
5	Tangibles 5	247	42,66	332	57,34
B	Reliability				
6	Reliability 1	3	0.52	576	99.48
7	reliability 2	18	3,11	561	96.89
8	reliability 3	4	0.69	575	99.31
9	reliability 4	34	5.87	545	94,13
10	reliability 5	9	1.55	570	98.45
C	Responsiveness				
11	Responsiveness 1	16	2.76	563	97,24
12	Responsiveness 2	12	2.07	567	97,93
13	Responsiveness 3	0	0.00	579	100
14	Responsiveness 4	4	0.69	575	99.31
D	Assurance				
15	Assurance 1	3	0.52	576	99.48
16	Assurance 2	15	2.59	564	97.41
17	Assurance 3	6	1.04	573	98.96
18	Assurance 4	0	0.00	579	100
E	Empathy				
19	Empathy 1	10	1.73	569	98.27
20	Empathy 2	5	0.86	574	99.14
21	Empathy 3	8	1.38	571	98.62
22	Empathy 4	1	0.17	578	99.83
23	Empathy 5	12	2.07	567	97,93

5.2. Attribute Priority of Service Quality of Individual Health Efforts (IHE) at Public Health Service (PHC) Sarolangun Regency based on Importance Performance Analysis (IPA)

Determination attribute priority development quality services at the Individual Health Efforts (IHE) analyzed based on Importance-Performance Analysis (IPA) is measured through the average value of performance-importance of dimensions Servqual, that is tangibles, reliability, responsiveness, assurance and empathy. Table 3 presents the mean scores of performance and importance for service quality attributes of Individual Health Efforts (IHE). Seen the largest gap value is on the tangible attribute 5 namely cleanliness of public toilets with gap value of 0.47 as shown in table 4.

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Table 4. Mean performance and importance scores for Service Quality (Servqual) of Individual Health Efforts (IHE) attributes.

No	Attributes	Mean Performance	Mean Importance	GAP
A	Tangibles			
1	Tangibles 1	3	3.05	0.05
2	Tangibles 2	2.97	3,15	0.18
3	Tangibles 3	2.98	3.02	0.04
4	Tangibles 4	3.05	3,15	0.1
5	Tangibles 5	2.58	3.05	0.47
B	Reliability			
6	Reliability 1	3	3.01	0.01
7	Reliability 2	2.97	3	0.03
8	Reliability 3	2.99	3	0.01
9	Reliability 4	2.94	3.01	0.07
10	Reliability 5	2.99	3	0.01
C	Responsiveness			
11	Responsiveness 1	2.98	3.01	0.03
12	Responsiveness 2	2.98	3.01	0.03
13	Responsiveness 3	3.01	3.01	0
14	Responsiveness 4	3.03	3.04	0.01
D	Assurance			
15	Assurance 1	3	3.01	0.01
16	Assurance 2	2.98	3.01	0.03
17	Assurance 3	2.99	3.02	0.03
18	Assurance 4	3	3	0
E	Empathy			
19	Empathy 1	2.98	3.01	0.03
20	Empathy 2	3.02	3.02	0
21	Empathy 3	3	3.03	0.03
22	Empathy 4	3	3	0
23	Empathy 5	2.98	3.01	0.03

Based on gap value found , analysis next with apply the gap values to in IPA chart matrix, with result:
Quadrant 1, the quadrant that shows excellence and should maintained, found 7 attributes namely: (1) Tangible 1; appearance officer, (4) Tangible 4; cleanliness waiting room, (13) responsiveness 3; willingness officer for help patient, (14) Responsiveness 4; gift information by officers, (17) Assurance 3; officer consistent behave polite and friendly, (20) Empathy 2; officer treat patients with full attention, (21) Seriousness officer prioritize interest patient .

Quadrant 2, the quadrant that shows required attributes become priority repair, found 7 attributes consists from: (2) tangible 2; cleanliness tool health, (3) tangible 3; availability information service, (5) tangible 5; cleanliness of public toilets, (8) reliability 3; give service in a manner good started from registration (9) reliability 4; officer inspect in accordance promised time , (12) responsiveness 2; prompt/quick service for patient, (16) assurance 2; skills officer in handle complaint patient .

Quadrant 3, the quadrant that shows repair with priority low found 3 attributes with number: (18) assurance 3; officer capable answer question patient, (19) empathy 1; attention doctor in handle complaint patient, (22) empathy 4; officer understand need treatment patient.

Quadrant 4, the considered quadrant excessive where the performance is very good found 9 attributes; (6) reliability 1; give service in accordance with the informed, (7) reliability 2; can dependable in handle problem patient, (11) responsiveness 1; officer inform about certainty time service patient, (13) responsiveness 3; willingness officer help patient, (15) assurance 1; officer cultivate trust to patient, (16) assurance 2; skills officer in handle complaint patient create a sense of security, (19) empathy 1; attention doctor in handle complaint patient, (23) empathy 5; opening hours operational health center.

Mapping attribute shaper dimensions Service Quality (Servqual) of Individual Health Effort (IHE) at Public Health Centre (PHC) in Sarolangun Regency can seen in the picture (figure 2).

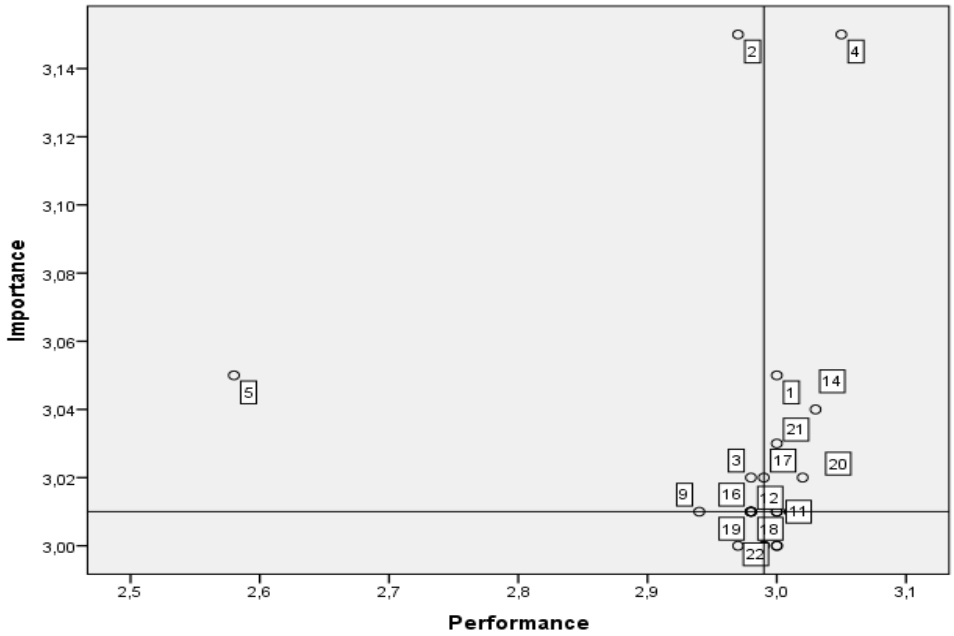

Figure . 2. Matrix Importance-Performance Analysis (Cartesian Diagram) Dimensions of Service Quality (Servqual) at Public Health Centre (PHC) in Sarolangun Regency in 2019

Based on the picture above, contained nearly spread evenly distributed in quadrant 1 which shows that performance is considered very good and level interest public high, and there is 1 attribute that is rated very high namely on the tangible dimension, cleanliness waiting room. From the attributes found in the quadrants, this also shows that service officer rated has well by society. Officer rated has consistent, polite, friendly and earnest in give service. Likewise in quadrant 4 where part big attribute is evaluation to officer assessed health been very good in give service health.

PA analysis results show there are 7 attributes as attribute priority in enhancement service quality on Individual Health Effort (IHE) all dimensions of Servqual, will be dominated by tangibles. Priority tangible attributes are focused on cleanliness and availability means infrastructure in general including tool health as well as information service. However, development means infrastructure it turns out not enough without the development quality sourced service from health workers, and proven in this research (Suthakorn et al. 2020; Ramzi et al. 2022) .

Efforts to healthy individuals who are carried out in health centers form service building with a service focus treatment to somebody started from registration until service pharmacy (Mariano et al. 2022; Wang et al. 2022). Physical evidence form means infrastructure is just not enough if not supported by power performance health in giving service. Besides that remember the dynamic condition society is facing so gift information through system information proper health will be much needed in creating service effective and efficient (Yazdi-Feyzabadi, Emami and Mchrolhassani, 2015; Mariano et al. 2022; Zhai et al. 2023).

6. Conclusion

All dimensions of Service Quality (Servqual) are priority attributes in improving the quality of Individual Health Efforts (IHE) at Public Health Centre (PHC) in Sarolangun Regency, especially the tangible dimensions on cleanliness and the availability of public infrastructure including medical devices and strengthening of service information. However, the existence of other Servqual dimensions as priority attributes shows that strengthening infrastructure alone is not enough without strengthening the quality of human resources, especially health workers, and this is proven in this study. Based on this, it is important for Government of Sarolangun Regency to prioritize the development facilities and infrastructure for health services at the health centre and accompanied by efforts to improve the quality of human resources providing services at the health centre.

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