Service Quality Analysis of Animal Health Centers in West Java Province with the SERVQUAL Method

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ABSTRACT

The Animal Health Center (Puskeswan) is one of the government-owned public services engaged in animal health services. Puskeswan has an important role in the National Animal Health System (Siskeswanas). Based on data from the Ministry of Agriculture, the number of Puskeswan in Indonesia is 1691. BPS 2021 population data, there is a significant development of livestock population in West Java Province of 1.34% per year, this is not offset by an increase in Puskeswan officers in the field and limited facilities and infrastructure causing problems in the services provided by Puskeswan. This study aims to analyze the quality of Puskeswan services in West Java Province using the ServQual method. This research method uses questionnaire and analysis of the Community Satisfaction Index (IKM), Science and the ServQual method. The dimensions used in the Servqual Method include tangible, empathy, responsibility, responsiveness, and assurance with 15 question attributes.

From the results of this research, the scope of the Puskeswan work area is very wide, at least three sub-districts with the number of officers not proportional to the number of animal / livestock populations. This will affect the quality of Puskeswan services provided. The quality of Puskeswan services in West Java Province shows an indication of the Good category with an IKM value of 80.16 but a gap value (gap) of 0.21 means that apa that is expected to be important by respondents is still not perceived performance. Based on the analysis of Importance Performance Analysis (IPA), several attributes that fall into quadrant II that need to be maintained include the friendliness of officers in providing services (E1), the attention of officers in providing services (E2), the accuracy of handling officers in treating sick animals / livestock (Rel2), the reliability of officers in providing service information (Rail 3), a feeling of security when the respondent gets service (A2). In an effort to improve the quality of Puskeswan services, a managerial implication strategy is needed which can be divided into three long, medium-, and short-term stages depending on the urgency and ability of each Puskeswan.

Keywords: Puskeswan, Siskeswanas, ServQual, Quality layanan, IKM, IPA.

INTRODUCTION
Public service is a series of service fulfillment activities in the form of goods and services with the basic principle of *excellent service*, in accordance with the Decree of the Minister of State Apparatus Empowerment and Bureaucratic Reform of the Republic of Indonesia (Menpan) No. 81 of 1993. Since the enactment of regional autonomy according to Law No. 32 of 2004, public services have become the basis and benchmark for the success of a region with the aim of providing satisfaction to the community. Animal Health Center (Puskeswan) is one of the public services in the field of animal health and spearheads

the National Health System (Siskeswannas) (Iqbal, 1999). Based on data from the Ministry of Agriculture in 2020, the number of Puskeswan was 1691 spread across 34 provinces in Indonesia, and only in 451 k ab/kota (87.7%), 1469 sub-districts (20.7%). Officers from Puskeswan consist of veterinarians and paramedics, with a total number of veterinarians 917 people and paramedics 7052 people and their work coverage in 451 districts / cities in Indonesia (Ministry of Agriculture Data 2020). For the area of Indonesia from the geographical area of BPS (2020) 1905 million km 2, with the area of West Java 35,776.76 km^2 around 1.85% of the territory of Indonesia.

BPS 2021 population data, there is a significant development of livestock population in West Java Province of 1.34% per year. The distribution of livestock populations is mostly concentrated in Java, sheep, broilers, ducks and manila ducks are widely found in West Java Province. The following table compares the number of Puskeswan, officers and the development of livestock populations in West Java Province.

Table 1. 1 Comparison of the number of Puskeswan, human resources and livestock population in West Java Province in 2021

No.	Total Region	Number of Subdistricts	Total of Puskeswan (pcs)	Total Officer (People)	Pop. Large Livestock (000 heads)	Pop. Small Livestock (000 heads)
1.	27 Region	627	92	52	593.435	13.633.953

From the table above, it can be seen that the rapid population growth is not balanced with the development of the number of Puskeswan and officers in the field. This is a gap in Puskeswan services. In Permentan 64 of 2007, proportionally for one sub-district has one Puskeswan and at least one veterinarian. Based on these problems, research was conducted to determine the value of satisfaction from the community with Puskeswan services, determine the gap gap between expectations and performance felt by respondents, and measure performance and expectations so that actions that can be taken by the government can be identified with the *ServQual* method . This research can contribute to the improvement of Puskeswan services in West Java Province by prioritizing factors that fall into the most important categories.

RESEARCH METHODS

This research was conducted at three Puskeswan locations, namely Cimahi City Health Center, Bandung Regency and Bogor Regency. Primary and secondary data sources. Primary data is data collected and obtained directly by researchers from the source (Sumarwan 2014) in the form of questionnaires and secondary data, namely BPS data, Ministry of Agriculture data, livestock service data. For primary data in the form of questionnaires with data collection periods starting from November 15, 2021 to January 30, 2022 by direct interview of respondents. The questionnaire consists of three parts, namely the respondent identity, verification of respondents who have used Puskeswan services, as well as 15 questions related to the level of importance and 15 questions related to satisfaction as well as two open questions of criticism and input for Puskeswan. All questions for satisfaction and importance used a liker scale measurement of 1 to 5 with each category value 1 representing the category "very dissatisfied", value 2 representing the category "not satisfied", value 3 representing the category "mediocre", value 4 representing the category "satisfied: and value 5 representing the category "very satisfied".

This dimension undergoes the development of Parasuraman, *et al*. in Tjiptono (2005) where there are overlapping dimensions and simplified into five main dimensions. In evaluating the quality of Puskeswan services in this study using five characteristics, namely:

1) Physical ability (*tangible*), where there is ease of finding the whereabouts of the

Puskeswan, the appearance of officers and the availability of Puskeswan facilities (buildings, equipment, medicines);

2) Attention (*empahty*), namely care and friendliness, as well as the attention of officers when providing services;

3) Reliability (*reability*), which includes the accuracy of handling officers in treating sick animals / livestock, reliability in providing service information and handling livestock both small and small operations;

4) *Responsiveness*, the speed at which officers provide *feedback* on reports from respondents, the speed of responding to case reports, being able to explain cases in the field and responding if there are suggestions and criticisms.

5) *Assurance*, including Puskeswan's reputation as a government service, provides a sense of security when respondents get services and animal health insurance received by respondents.

The sampling method by *means of non-probability* sampling is a sampling technique in which members of the population do not have the same opportunity to become members of the sample (Asnawi, 2009).

YIELD AND EXTERMINATION
Pusat Animal Health (Puskeswan)
The number of Puskeswan in Indonesia based on data from the Ministry of Agriculture is 1691 units spread across 85% of districts / cities with the support of human resources as many as 971 veterinarians and 1041 veterinary paramedics. West Java Province consists of 92 Puskeswan spread across 25

regencies/cities with officers consisting of 25 veterinarians and 27 paramedics. Puskeswan is the spearhead of the National Animal Health System (Siskeswanas) which is a government guarantee of the quality of animal health in accordance with theLaw on Livestock and Animal Health No. 18 of 2009.

Based on information data from the Livestock Office of West Java Province and the district / city of work coverage of the Cimahi City Puskeswan Puskeswan serves in 3 districts (North Cimahi, Central Cimahi and South Cimahi Districts), with one veterinarian and 14 officers. Puskeswan Bogor Regency handles 7 sub-districts (Jonggol, Cariu, Sukamakmur, Tanjungsari, Cileungsi, Gunung Putri, and Klapa Nunggal) with 2 veterinarians and a total of 9 officers. Puskeswan West Bandung Regency handles in 16 sub-districts (Lembang, Parongpong, Cisarua, Ngamprah, Padalarang, Cipatat, Cikalong wetan, Cipeundeuy, Batujajar, Saguling, Cihampelas, Cililin, Sindangkerta, Gunung Halu, Cavity and Cipongkor with 6 veterinarians and a total of 26 officers.

Community Satisfaction Survey Value
Respondents' satisfaction with public services is an important benchmark in regional autonomy (Menpan 81 of 1993). To determine respondent satisfaction, a survey of the quality of Puskeswan services was conducted using dimensions, so that it can be known which ones should be improved, maintained so that Puskeswan can carry out its functions better. The following is a table of community satisfaction survey scores in West Java Province.

Table 1.2 Recapitulation of community satisfaction survey scores of animal health services at animal health centers (Puskeswan) West Java Province

No.	Statement	NRR per attribute	NRR	Weighted NRR per Element
	Tangible			
1	Availability of Puskeswan Facilities (buildings, equipment, medicines)	4,38	0.06	0.26
2	Appearance of officers	4,04	0.06	0.26
3	Ease of finding the whereabouts of Puskeswan	4,45	0.06	0.27
	Empathy			
4	Care and friendliness of officers in providing services	4,55	0.06	0.27

	Table 1.2 To Be Continued…			
5	Attention of officers in providing services	4,57	0.06	0.27
	Reability			
6	Reliability of officers in carrying out livestock handling (small/large operations)	4,42	0.06	0.27
7	Accuracy of handling officers in treating sick animals/livestock	4,49	0.06	0.27
8	Reliability of officers in providing service information	4,48	0.06	0.27
	Responsiveness			
9	Explanation of case reports in the field by officers	4,38	0.06	0.26
10	Service officers' response to respondents' suggestions and criticisms	4,36	0.06	0.26
11	The speed at which officers provide *feedback* on reports from respondents	4,44	0.06	0.27
12	The speed at which officers respond to case reports by respondents	4,45	0.06	0.27
	Assurance			
13	The existence of health insurance received by respondents from Puskeswan	4,34	0.06	0.26
14	Feeling of security when respondents get services	4,47	0.06	0.27
15	Puskeswan's reputation as a government service	4,05	0.06	0.27
	Index Value (NI)	40,008		
	SKM value after conversion (NI x 20)	80,016		
	Service Quality and Service Performance	B (Satisfactory)		

Based on the table above, the value of the service quality improvement of Puskeswan in general West Java Province indicates satisfactory results with a Service Index Value of 4,008 and a Community Satisfaction Index (IKM) of 80,016. These results are an accumulation of the performance of each element of service provided by Puskeswan. In general, the *empathy* attribute shows the highest weighted NRR value, followed by *reability, responsiveness, tangible* and *assurance*. Some elements that are considered satisfactory by the community include the attention and friendliness of officers in service, the accuracy and reliability of officers, the speed of responding and providing *feedback*, respondents feel safe, and the ease of finding Puskeswan. All of these elements, according to respondents, must be maintained and improved. Elements that need to be improved are the reputation of Puskeswan as a government service and the appearance of officers, so it is hoped that in the future Puskeswan as the vanguard of the National Animal Health System and public services will have a good reputation in the community. Improvement of Puskeswan facilities needs to be done to provide a sense of comfort to respondents, and also providing training to officers can improve the quality of expertise and professionalism of officers. To maintain the reputation of Puskeswan can be done by providing professional services to respondents.

## Gap Analysis and *Importance Performance Analysis* (IPA)

Service quality is based on views or perceptions from consumers, not from the service provider. To find out the quality of these services, you can use a method or system that is in accordance with the standard standards of public services, namely the "*Servqual*" method (Pasaruman *et al*. 1990). *Servqual* is a tool to measure the quality of service from service providers from each dimension, so that a gap value is obtained which is the value of the difference between consumer perceptions of the services received and expectations of the services received using questionnaires. If the service received by respondents exceeds their expectations, it means that Puskeswan users are very satisfied with the services provided by Puskeswan but if the reality received by respondents is not in accordance with expectations, respondents will be disappointed. The smaller the gap value, the better the service provided because it is closer to the respondent's expectations. The following is a comparison table of performance and expectations from respondents in West Java Province. Here is the gap table for West Java Province:

Table 1. 3 Importance, performance and Gap of Puskeswan services in West Java Province

No.	Statement	Interests	Performance	Gap
	Tangible			
1	Availability of Puskeswan Facilities (buildings, equipment, medicines)	4,71	4,38	0,33
2	Appearance of officers	4,45	4,4	0,05
3	Ease of finding the whereabouts of Puskeswan	4,66	4,45	0,21
	Empathy			
4	Care and friendliness of officers in providing services	4,73	4,55	0,18
5	Attention of officers in providing services	4,7	4,57	0,13
	Reability			
6	Reliability of officers in carrying out livestock handling (small/large operations)	4,69	4,42	0,27
7	Accuracy of handling officers in treating sick animals/livestock	4,73	4,49	0,24
8	Reliability of officers in providing service information	4,67	4,48	0,19
	Responsiveness			
9	Explanation of case reports in the field by officers	4,63	4,38	0,25
10	Service officers' response to respondents' suggestions and criticisms	4,63	4,44	0,19
11	The speed at which officers provide *feedback* on reports from respondents	4,63	4,45	0,18
12	The speed at which officers respond to case reports by respondents	4,6	4,36	0,24
	Assurance			
13	The existence of health insurance received by respondents from Puskeswan	4,61	4,34	0,27
14	Feeling of security when respondents get services	4,69	4,47	0,22
15	Puskeswan's reputation as a government service	4,64	4,5	0,14
	Average	4,65	4,45	0,21

From the table above, the service with the smallest gap value is *the tangible* dimension in the officer appearance element with a value of 0.05. For the low gap value, the empathy dimension is the *care* and friendliness of officers in providing services of 0.14. A small gap value means that what respondents expect to be important has been perceived performance. In general, the indication of the gap value of Puskeswan in his province is 0.21.

Mapping the level of importance and level of satisfaction of service users with the quality of Puskeswan services in West Java Province, a *cartesian diagram of Importance Performance Analysis* (IPA) was made, by identifying the 15 steps above. The results of the science are made in the form of two-dimensional quadrants that are grafis and youngh are interpreted (Tjiptono 2011).
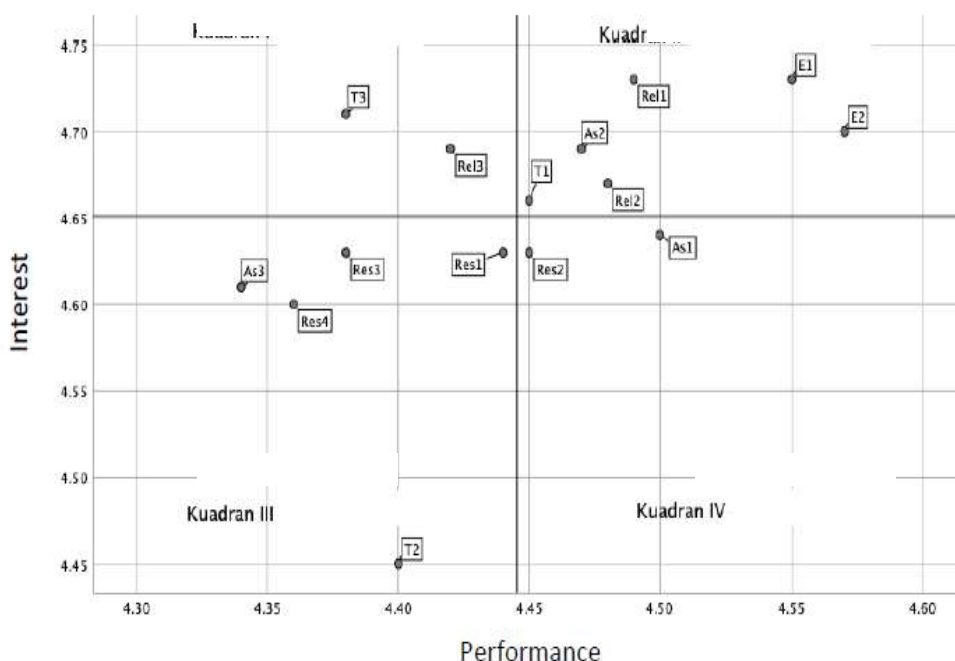
Figure 1.1 Results of IPA analysis of animal health services in PUSKESWAN West Java Province

Quadrant I (Top Priority/ *primary area to improve*)

The factors in the quadrant are considered important and expected by respondents, but the accepted perceptions and realities have not been satisfactory. To improve the quality of Pukseswan, the government must allocate adequate resources to improve the performance / performance that enters this quadrant. In this study, the attributes in quadrant I are the availability of Puskeswan facilities both buildings, equipment, medicines (T1) andthe reliability of officers in launching livestock handling (small / large operations) (Rel4).

The reliability of officers in launching and handling livestock when carrying out operations both large and small can be done by sending training officers (technical guidance) to government-owned training agencies (HR Ministry) as well as training that is private training on an ongoing basis. Trained officers can conduct *in-house training* to their colleagues so that all officers can update their knowledge.

Current equipment and medicine facilities continue to be carried out and is a short-term strategy by identifying the need for medicines used in the field, meeting equipment that does not yet exist to carry out treatment. As for building facilities, it takes a lot of time and costs. For Puskeswan buildings, it can be allocated through DAK funds from the State Budget and carried out in stages, it can also be through APBD I / II or also from PNBP.

Quadrant II (Maintain service/ *primary area maintain*)

This quadrant contains factors that are considered important and are expected to support respondents' satisfaction so that Puskeswan is obliged to maintain its achievements/performance. In this quadrant, the level of importance of respondents on the attributes of high service and performance of Puskeswan is also high. In this study, the attributes in quadrant II are the ease of finding the existence of Puskeswan (T2), the care and friendliness of

officers in providing services (E1), the attention of officers in providing services (E2), the accuracy of handling officers in treating sick animals / livestock (Rel2), the reliability of officers in providing service information (Rel 3), a feeling of security when the respondent gets service (A2).

In this quadrant, respondents feel that the care and friendliness, attention, and reliability of officers in providing information and serving are very good so that respondents feel safe when getting services from officers. Officers are also precise in handling and treating sick animals / livestock and they easily find the location of the Puskeswan. All of this needs to be maintained so that it is necessary to make Standard Operating Procedures (SOPs) for handling sick animals / livestock, and the friendliness of the officers.

Quadrant III (Low priority / *secondary area to improve*)

In this quadrant, it is an attribute that is considered to have a low level of perception or performance or is not too important or not too expected by respondents so that Pukseswan does not need to prioritize or pay attention to this attribute. In this study, according to respondents, the attributes that fall into quadrant III are psix officers (T3), the speed at which officers provide *feedback* on reports from respondents (Res2), explanations of case reports in the field by officers (Res1), service officers' responses to respondents' suggestions and criticisms (Res2*), a* health insurance received by respondents from Puskeswan (A1).

The clean appearance of the clerk while serving provides added value even though it is not too much of a priority. Officers respond if there is input and criticism and *feedbac*k reports from respondents and health insurance health is also a low priority. Puskeswan can reduce the appearance of officers and health insurance to be transferred to more priority elements.

Quadrant IV (potential advantage)

Quadrant IV contains attributes that are considered not too important and not too expected by respondents so that in its implementation Puskeswan is better to allocate related resources to other attributes that have a higher priority. The following are attributes that are in quadrant IV, namely the speed of officers responding to respondents' suggestions and criticisms (Res2*responsiveness*), the reputation of Puskeswan as a government service (*assurance*). Puskeswan does not need to prioritize or pay attention to these elements, so it can be reduced to save costs

In terms of quality, the quality of service at the Puskeswan of West Java Province indicates B (satisfactory), but based on gap analysis and IPA, some are in quadrants I and IV. Based on the results of research from gap and IPA that need to be improved by the West Java Puskeswan is on attributes. Here are the attributes that go into quadrants I and II:

1) Availability of Puskeswan facilities both buildings, equipment, and medicines (T1). This is in accordance with the analysis has a g ap value of 0.33 and IPA quadrant I. The importance value is 4.71 but the performance is 4.38. This attribute can be done by increasing the availability of Puskeswan facilities both equipment, medicines in the short term and gradually building the Puskeswan for a long period of time.

2) Theofficer's mainstay in launching livestock handling (small / large operations) (Rel4), has a g ap value of 0.27 and for IPA enters quadrant I. Improving this attribute can be done by providing training or technical guidance to Puskeswan officers regularly and updating officer skills.

3) The accuracy of officers in treating sick animals/livestock (Rel1) has a gap value of 0.24 and is included in quadrant II which must be maintained service. Respondents considered this element very important with an importance value

of 4.73 and a performance of 4.49, where a small gap was close to respondents' expectations. To maintain this attribute by always updating knowledge and technical guidance to officers on an ongoing and periodic basis.

4) The feeling of security felt by respondents when getting services (As2) has a gap value of 0.22 with an importance value of 4.67 and performance of 4.47. This attribute falls into quadrant Ii and must be maintained, where respondents feel comfortable and safe with Puskeswan officers.

5) The reliability of officers in providing service information (Rel2) has a gap value of 0.19 and includes quadrant II. This attribute must be maintained and become a superior element of Puskeswan services.

6) The care and friendliness of officers in providing services (E1) is included in quadrant II with a gap value of 0.18 and is also an attribute that must be maintained because it does not require large costs.

7) The attention of officers in providing services (E2), this attribute is included in quadrant II with a gap value of 0.13. The small gap value is better and can be the superior user of Puskeswan services.

From the results of research for attributes that enter quadrants III and IV based on gap analysis and IPA there are seven. According to respondents, these seven attributes are considered less important where the perceived performance is very small so it needs to be considered to reduce or stop the element's resources as an effort to save costs. These attributes include:

1) The appearance of the officer (T2), with an importance value of 4.45 and a performance of 4.40 so that the gap value is 0.05. Based on IPA, this attribute falls into quadrant III where it is considered important but the benefits felt by respondents are very small.

2) Puskeswan's reputation as a government service (As1), the gap value is small at

0.14. Although from a small gap value, the analysis of science this element is considered less important because it is in quadrant IV. Respondents do not dispute the reputation of Puskeswan so that this attribute can be reduced in order to save costs.

3) The speed at which officers responded to case reports by respondents (Res2) with a gap value of 0.18. This attribute has a small gap, where the expected service is in accordance with the performance received by respondents. Although the gap is small, this element is included in quadrant IV so that it can be ignored or reduced.

4) The speed at which officers provide *feedback* on reports from respondents (Res1), with a gap value of 0.19. The gap value is small but the IPA analysis places this element in quadrant III, where the performance of this element is not too special and can be considered because the effect is very small for respondents so that the element can be reduced to save costs.

5) Service officers' response to respondents' suggestions and criticisms (Res4*),* with a gap value of 0.24 and entered into quadrant III. To improve this attribute can be considered because

the effect and perceived benefits of respondents are very small.

6) Explanation of the case report in the field by the officer (Res3), with a gap value of 0.25. This element is included in quadrant III so that the increase in this element can be considered because it is considered less important by respondents and performance is not too special.

7) There is health insurance received by respondents from Puskeswan (As3), with a gap value of 0.27. The gap is large and enters quadrant III so that the increase in this element can be reconsidered because the benefits felt by respondents are very small.

Managerial Implications
Improving the quality of Puskeswan services as a government-owned service is very important. The results of this study are improvements in the quality of Puskeswan services in West Java Province which have implications for policy recommendations that can be carried out by the Regional Government and the Central Government. In managerial implications, there are 3 stages of business model development in the short term, medium term and long term in each dimension.

Table 1. 4 Managerial implications of foreign m based on Short, Medium and Long Term

Dimension	Short-term	Medium Term	Long-term
Responsiveness	create and implement service SOPs, by responding at least 1x24 hours	Open a complaint service both in person (offline) and online	Create a program for service evaluation
	Create a response suggestion box for respondent responses	Provide *public speaking* training for officers	Create respondent service programs
	Increase the confidence of officers	Improve the quality-of-service quality	
	Informing about Puskeswan services	Open Disclosure Services both *directly (offline)* and online	
Assurance	Provide training for officers in conveying information	Socializing to build trust in animal owners is very important	Create insurance for animals/livestock
	Evaluate procedures	Rutin training for about	conduct promosi and eeducation about Puskeswan Services
	Service	Knowledge and skills	
		In service	
	Guarantee the confidentiality of the owner's identity		Improving Puskeswan supporting facilities
Reabilility	Provide training in information conveying skills	Medical and surgical skills training	Budget allocation for comparative studies
	Making IEC Materials for Puskeswan	Maintain and improve in the future services in terms of accuracy, speed, by providing knowledge provision	Sending officers for training at the Ministry of Human Resources Agency
Empathy	Increase human resources (HR) to ensure that every animal owner can meet their needs without feeling neglected	Maintain performance by continuing to show high attitude and empathy to livestock owners	Create a digital assessment system regarding service satisfaction at Puskeswan with questionnaires monitored weekly or at least monthly

Table 1.4 To Be Continued…			
	Conduct intensive communication to animal owners properly and correctly	Add HR	
	Create a Service input space or field;		
	Applyself-confidence and a culture of smiling, greeting, and listening.		
Tangible	Fixing theofficer's six-pronging	Socialization and promotion of the existence of Puskeswan through social media, banners, flyers etc.	Adding Puskeswan equipment
	Supplementing drugs		
	Improve the comfort and layout of Puskeswan		Improving Puskeswan facilities

CONCLUSION AND ADVICE

The quality of Puskeswan services in West Java Province generally indicates Good with a Satisfactory score and an IKM value of 80.16. When viewed based on dimensions, the *tangible* dimensions of attributes that have not been fulfilled are Puskeswan building facilities, equipment and medicines. The reliability dimension is the *reliability* of officers and the *responsiveness* dimension attributes of the explanation of officer reports. The *assurance* dimension of unfulfilled attributes of animal health insurance, and the *empathy* dimension is the ease of finding Puskeswan.

Local governments and central governments can pay attention to Puskeswan as the spearhead of Siskeswanas and also as a government-owned public service. The government can take a policy by looking at the IPA quadrant, which moves the allocation of excess resources to attributes that are not considered important (quadrant IV attributes) to attributes that are considered important (quadrant II attributes. For the construction of building facilities, Puskeswan can apply for DAK funds through the State Budget or by using PNBP. To improve the skills of officers, it is necessary to conduct training for officers regularly and continuously.

The results of this study can be followed up with research related to public services, especially Puskeswan services so that it is expected to improve Puskeswan services.

Declaration by Authors

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