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BPJS Health Service Quality Audit Using Cobit 5.0 on Domain Deliver, Service and Support at Ciluluk Health Center

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Abstract

Ciluluk Community Health Center is a community health service center in Cikancung District, Bandung Regency. In its operations, it cooperates with the Social Security Administration Agency (BPJS). In 2021 there was a decrease in the number of BPJS participants by 14.2% which had an impact on the capitation of the Ciluluk Health Center which had decreased by 9.73%. This research was conducted to audit the quality of BPJS Health services at the Ciluluk Public Health Center, Cikancung District, Bandung Regency using the COBIT 5.0 domain Deliver, Service and support method. Work Operational Process is at level 1 with a value of 87%, Action Service Process, is at level 2 with a value of 90%, Problem Handling Process, is at level 5 with a value of 100%, Process of Providing Directions, is at level 5, with a value of 99 %, Information System Service Process, is at level 3, with a value of 79.33%, Controlling Process, is at level 3 with a value of 96.25%. Thus COBIT 5.0 domain Deliver, Service and support can help evaluate the quality of service at the Ciluluk Health Center. acronyms.

Keywords: Service quality, COBIT 5.0, Domain DSS, process assessment model.

1. Introduction

Auditing is an activity of collecting actual and significant information through systematic interaction by conducting inspections, measurements and assessments that lead to drawing conclusions.

Service quality is something that tends to refer to the level of perfection in the implementation of ongoing services. Service quality can lead to a sense of satisfaction with both the organization and other people who are in accordance with the established code of ethics and professional service standards.

The Social Security Administering Body (BPJS) is a Public Legal Entity that has direct responsibility to the President and has the task of administering the National Health Insurance for all Indonesian people.

The Ciluluk Health Center is located on Jalan Raya Cijapati No. 78 Srirahayu Village, Cikancung District, Bandung Regency 40396, with a total number of employees of 31 people.

| Table 1: Membership Data | | | | | | | | | | | | | |
|----------------------------|---------------|---------------|----------|--|--|--|--|--|--|--|--|--|--|
| Information | Year 2020 | Year 2021 | Growth | | | | | | | | | | |
| Total population | 43,092 Souls | 39,431 Souls | - 8.49 % | | | | | | | | | | |
| Number of BPJS PBI | 22,676 Souls | 19,446 Souls | - 14.2 % | | | | | | | | | | |
| Participants | | | | | | | | | | | | | |
| Total Capitation (Rp.) | 1,478,341,800 | 1,334,422,692 | - 9.73 % | | | | | | | | | | |
| | | | | | | | | | | | | | |
| Table 2: BPJS Service Data | | | | | | | | | | | | | |

| | Table 2: BPJS Service D | ata | |
|-----------------------------|-------------------------|-------------|---------|
| Information | Year 2020 | Year 2021 | Growth |
| Number of Outpatient Visits | 8,928 Souls | 8,284 Souls | -7.21 % |
| Number of Referrals | 1,066 Souls | 973 Souls | -8.72 % |

The decrease in the number of BPJS Kesehatan membership in Cikancung District, including several members who were deactivated without notification. This makes the writer need to know how the BPJS health service process is at the Ciluluk Health Center?.

The purpose of this study was to evaluate the BPJS health service process at the Ciluluk Puskemas related to Operational Service processes, Action services, problem handling, ongoing information, information system services, and controlling (Fitriati, 2019).

2. Literature Review

The quality of health services is to show the level of perfection of health services, so that they can satisfy each patient according to the level of satisfaction of the average population and their implementation is in accordance with the established code of ethics and professional service standards (Suyanti, 2019).

Audit is an activity to evaluate all procedures and methods of the company's organization in order to evaluate the level of efficiency and effectiveness of the company (Arens, Alvin. A., Randal J. Elder, 2003).

Health Service Quality Audit is an examination of an organization in the field of health services carried out by competent or independent people using some data about health services, then the data is compared between the data that has been obtained and the fact that there is an organization for health services (Nurhanifah, 2023).

Cobit 5.0 is a framework or framework that provides services to enterprises, be it a company, organization, or enterprise goals (ISACA, 2012).

Cobit 5.0 has 5 (five) domains which are divided into Governance and Management domains, each of these domains has several processes to achieve its goals, namely (ISACA, 2013):

- 1. Domain Align, Plan and Organization (APO) or Planning Domain and has 13 processes.
- 2. Domain Build, Acquire and Implement (BAI) or Development Domain and has 10 processes.
- 3. Domain Deliver, Service and Support (DSS) or Domain Implementation and has 6 processes.
- 4. Domain Monitor Evaluate and Assess (MEA) or Monitoring Domain and has 3 processes.
- 5. Domain Evaluate, Direct and Monitor (EDM) or Domain Governance and has 5 processes
- The DSS Domain consists of 6 (six) processes, namely: (Al-Rasyid, 2015)
- 1. DSS01 Manage Operations

This process coordinates and carries out activities and operational procedures needed to provide information technology services for internal and outsourcing. Including the implementation of standard operating procedures and monitoring activities as needed.

2. DSS02 - Manage Service Requests & Incidents

This process provides timely and effective response to user requests and resolution of all activities or events.

- 3. DSS03 Troubleshooting
- This process identifies and clarifies problems, causes of problems and provides appropriate repair solutions.

4. DSS04 - Managing Sustainability

This process builds and maintains plans that enable business and information technology to respond to events and disruptions so that they can continue business operational processes, maintaining the availability of information in the organization.

5. DSS05 – Manage Service Security

This process protects organizational information to maintain an acceptable level of information security risk according to the organization's security policy.

6. DSS06 – Manage Business Process Controls

This process defines and maintains appropriate business process controls to ensure that information meets the relevant information control requirements

3. Materials and Methods

3.1. Materials

Ciluluk Community Health Center was established in 1982 with an address at Jalan Raya Cijapati No. 78 Srirahayu Village, Cikancung District, Bandung Regency 40396. The Ciluluk Health Center oversees 4 (four) main villages in Cikancung District, namely Ciluluk Village, Mekarlaksana Village, Srirahayu Village and Cihanyir.

The vision of the Ciluluk Health Center is:

"realizing affordable, optimal, and professional basic health services for the community and creating a healthy community independently".

The mission of the Ciluluk Health Center is:

1. Creating affordable access to health services for all levels of society in the working area of the Ciluluk Health Center in particular.

2. Trying to be able to work optimally to provide excellent service to the community with all the power and effort even with all the limitations that exist.

3. Maintain and try to improve the professionalism and quality of work, so that they can work in a professional, sincere, fair and trustworthy manner.

| YearTotal PopulationTotal PopulationNumber of BPJS PBINumber of CapitationPoorParticipants(Rp.)202043,092 People22,667 People22,676 People1,478,341,800202139,431 People20,846 People19,446 People1,334,422,692Growth- 3,661 People-1,821 People- 3,230 People- 143,919,108Percent- 8.49%- 8.03%-14.2%- 9.73 % | | Table 3: BPJS Membership Data | | | | | | | | | | | | | |
|--|---------|-------------------------------|------------------|--------------------|-----------------------|--|--|--|--|--|--|--|--|--|--|
| 202043,092 People22,667 People22,676 People1,478,341,800202139,431 People20,846 People19,446 People1,334,422,692Growth- 3,661 People-1,821 People- 3,230 People- 143,919,108 | Year | Total Population | Total Population | Number of BPJS PBI | Number of Capitations | | | | | | | | | | |
| 202139,431 People20,846 People19,446 People1,334,422,692Growth- 3,661 People-1,821 People- 3,230 People- 143,919,108 | | _ | Poor | Participants | (Rp.) | | | | | | | | | | |
| Growth - 3,661 People -1,821 People - 3,230 People - 143,919,108 | 2020 | 43,092 People | 22,667 People | 22,676 People | 1,478,341,800 | | | | | | | | | | |
| | 2021 | 39,431 People | 20,846 People | 19,446 People | 1,334,422,692 | | | | | | | | | | |
| Percent - 8.49% - 8.03% -14.2% - 9.73 % | Growth | - 3,661 People | -1,821 People | - 3,230 People | - 143,919,108 | | | | | | | | | | |
| | Percent | - 8.49% | - 8.03% | -14.2% | - 9.73 % | | | | | | | | | | |

Source: Ciluluk Health Center

| Table 4: BPJS Service Data | | | | | | | | | | | | | |
|----------------------------|----------------------------------|---------------------|--|--|--|--|--|--|--|--|--|--|--|
| Year | Number of Outpatient Visits Path | Number of Referrals | | | | | | | | | | | |
| 2020 | 8,928 People | 1,066 People | | | | | | | | | | | |
| 2021 | 8,284 People | 973 People | | | | | | | | | | | |
| 0 011111110 | | | | | | | | | | | | | |

Source: Ciluluk Health Center

| Tabl | e 5: Inactive BPJS Membership Data for 2021 |
|-----------------------|---|
| Village | Number of BPJS Membership Inactive in 2021 |
| Ciluluk | 882 People |
| Mekarlaksana | 503 People |
| Srirahayu | 634 People |
| Cihanyir | 569 People |
| Total | 2,656 People |
| Sources Cilulult Heel | th Conton |

Source: Ciluluk Health Center

The Internet network at the Ciluluk Health Center uses 2 Wifi networks, namely Wifi from the Bandung Regency Communication and Information Service (DISKOMINFO) which has 2 wifi accounts with a speed of 10Mbps and can be accessed by 30 people (Puskesmas employees), and another Internet network that uses Indihome has 2 Wifi account with a speed of 10Mbps and can be accessed by 30 people (Puskesmas staff).

Tool for analyzing data using Cobit 5.0. According to ISACA (2012) Cobit (Control Objectives For Information & Related Technology) is a work guide in managing information technology. Created by ISACA (Information Systems Audit and Control Association) and ITGI (IT Governance Institute)(ISACA, 2012).

3.2. Methods

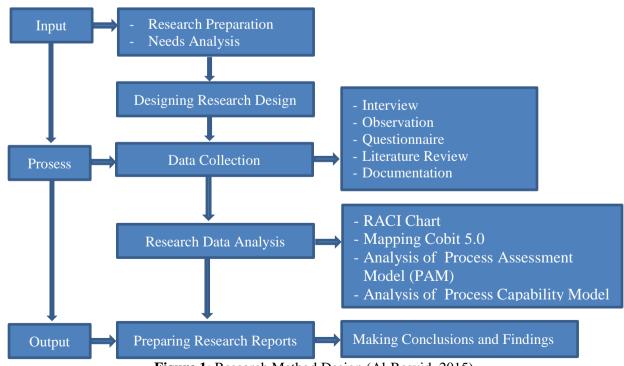


Figure 1: Research Method Design (Al-Rasyid, 2015)

3.2.1. Business Process Flowmap at Ciluluk Health Center

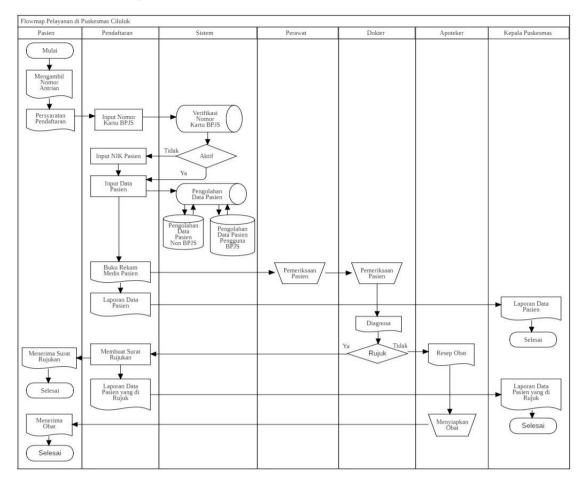


Figure 2: Business Process Flowmap at Ciluluk Health Center (Suyanti, 2019)

3.2.2. RACI Chart

| | Т | able 6: N | Mapping | RACI C | hart | | | | |
|-----------------------------------|-----------------------|------------------------|---|------------------------------------|--|-------------------------------|--|---------------------|-------------------------|
| Key Management Practice | Head of Health Center | Head of administration | Responsible for Essential SMEs and Public Health Nursing | Responsible for SME Development | Responsible for Pharmacy and Laboratory UKP | Health Center Service Network | Responsible for Building Infrastructure and Equipment | Quality Responsible | Coordinator/Other Staff |
| DSS01 Operational Services | R | R | R | R | R | R | R | R | R |
| DSS02 Action Service | RA | RACI | RACI | RACI | RACI | RACI | RACI | RACI | А |
| DSS03 Handling Problems | RA | RACI | RACI | RACI | RACI | RACI | RACI | RACI | А |
| DSS04 Giving Directions | R | RACI | RACI | RACI | RACI | RACI | RACI | RACI | Ι |
| DSS05 Information System Services | Ι | Ι | CI | CI | CI | CI | CI | CI | Ι |
| DSS06 Controlling | R | R | R | R | R | R | R | R | R |

3.2.3. COBIT 5 M

3.2.4. Mapping

| | Table 7: Mapping between Business Goals an | | | | | |
|--------------------------|---|---|---|---------------------|----------------------|---|
| | | Cilu | luk Heal | lth Cente Target | er Stra | tegic |
| Dimension | Sector Enterprise Goals | Involving the community in the health center service process | Innovate to improve information system technology in puskesmas services | out | Support BPJS program | Facilitating the program public health |
| | 1 Stakeholder value of business investment | Р | Р | Р | Р | Р |
| ial | 2 Portpolio of competitive products and services | Р | Р | Р | Р | Р |
| Financial | 3 Managed business risk (safeguarding of assets) | Р | Р | Р | Р | Р |
| Fi | 4 Compliance with external laws and regulations | Р | Р | Р | Р | Р |
| | 5 Financial transparency | | S | S | Р | Р |
| | 6 Customer oriented services culture | Р | Р | Р | Р | Р |
| STS | 7 Business services continuity and availability | S | S | S | S | S |
| Customers | 8 Agile responses to a chaging business environment | Р | Р | Р | Р | Р |
| Cu | 9 Information based strategic decision making | Р | Р | Р | Р | Р |
| | 10 Optimization of services delivery cost | | Р | S | Р | Р |
| | 11 Optimization of business process functionality | Р | Р | Р | Р | Р |
| _ | 12 Optimization of business process costs | Р | | | Р | Р |
| Internal | 13 Managed business change programs | S | S | S | Р | S |
| Int | 14 Operational and staff productivity | S | S | S | Р | S |
| | 15 Compliance with internal policies | Р | Р | Р | Р | S |
| rnin & wth | 16 Skilled and motivated people | Р | S | S | Р | S |
| Learnin g & growth | 17 Product and business innovation culture | Р | S | S | Р | Р |

| | | | | | EN | ГERPI | RISE | GOA | 4L | | | | | | | | | |
|----------------|----|---|--|---|---|--|---------------------------|---------------------------------------|--|--|--|--|---|--|--|---------------------------------------|---------------------------------|---|
| BSC DIMENSI ON | NO | IT-realated goals | 1. Stakeholder value of business invesment | 2. Portopolio of competitive product and services | 3. Managed business risk (safeguarding of assets) | 4. Compliance with external laws and regulations | 5. Financial transparency | 6. Customer oriented services culture | 8. Agile responses to a chaging business environment | 9. Information based strategic decision making | 10. Optimization of services delivery cost | 11. Oprimization of business process functionality | 12. Optimization of business process cost | 13. Managed business change programmes | 14. Operational and staff productivity | 15. Compliance with internal policies | 16.Skilled and motivated people | 17. Product and business innovation culture |
| | 1 | Aligenment of IT and business strategy | Р | Р | Р | Р | S | | Р | Р | | | | Р | S | Р | Р | Р |
| | 2 | IT compliance and support for business compliance with external laws and regulation | | S | Р | Р | S | | Р | Р | | | | S | S | Р | | |
| Financial | 3 | Commitment of exective management for aking IT-related decisions | S | | | | | | | | | | | S | S | | | Р |
| | 4 | Manage IT -related business risk | Р | Р | Р | Р | | S | Р | | | | Р | S | Р | Р | Р | Р |
| | 5 | Realised benefits from IT-enabled invesments and services portofolio | Р | Р | | | | | | Р | S | S | | Р | Р | S | Р | Р |
| | 6 | Transparancy off IT cost, benefit and risk | | | Р | | Р | | | | Р | S | Р | | | | | |
| Customer | 7 | Delivery of IT seervices in line with business requirement | | Р | Р | Р | | Р | | | S | _ | | - | | Р | Р | Р |

Table 8: Mapping between Enterprise Goals and IT-Realated Goals

Table 9: Mapping between Enterprise Goals and IT-Realated Goals (Cont. 1)

| | | | | | El | NTE | RPR | ISE | GOA | L | | | | | | | | |
|-----------------------|----|---|--|---|---|--|---------------------------|---------------------------------------|---|--|--|--|---|--|--|---------------------------------------|---------------------------------|---|
| BSC DIMENSI ON | NO | IT-realated goals | 1. Stakeholder value of business invesment | 2. Portopolio of competitive product and services | 3. Managed business risk (safeguarding of assets) | 4. Compliance with external laws and regulations | 5. Financial transparency | 6. Customer oriented services culture | 8. Agile responses to a chaging business environment | 9. Information based strategic decision making | 10. Optimization of services delivery cost | 11. Oprimization of business process functionality | 12. Optimization of business process cost | 13. Managed business change programmes | 14. Operational and staff productivity | 15. Compliance with internal policies | 16.Skilled and motivated people | 17. Product and business innovation culture |
| Customer | 8 | Adequate use of application, information and technology solution | S | | S | | | | S | Р | | | | | Р | S | Р | Р |
| | 9 | IT Agility | | Р | Р | S | | | Р | Р | | | | S | Р | Р | Р | Р |
| | 10 | Security of information, processing infrastructure and applications | S | Р | Р | | S | S | Р | Р | | | | Р | Р | Р | S | Р |
| Internal | 11 | Optimation of IT assets, resources, and capability | | | Р | | | | | | Р | Р | Р | Р | Р | S | S | Р |
| | 12 | Enabled and support of business processes by integrating application and technology into business processes | Р | Р | Р | Р | S | Р | Р | Р | | | Р | S | | | | Р |

| BSC DIMENSI ON | NO | IT-realated goals | 1. Stakeholder value of business invesment | 2. Portopolio of competitive product and services | 3. Managed business risk (safeguarding of assets) | 4. Compliance with external laws and regulations | 5. Financial transparency | 6. Customer oriented services culture | 8. Agile responses to a chaging business environment | 9. Information based strategic decision making | 10. Optimization of services delivery cost | 11. Oprimization of business process functionality | 12. Optimization of business process cost | 13. Managed business change programmes | 14. Operational and staff productivity | 15. Compliance with internal policies | 16.Skilled and motivated people | 17. Product and business innovation culture |
|-----------------------|----|---|--|---|---|--|---------------------------|---------------------------------------|---|--|--|--|---|--|--|---------------------------------------|---------------------------------|---|
| internal | 13 | Delivery of programmes delivering benefits, on time, on budget, and meeting requirements and quality standards | Р | Р | | 7 | Р | Ŭ | P | Р | Р | Р | Р | Р | Р | Р | S | Р |
| II | 14 | Avaibility of reliable and useful information for decision making | | Р | | Р | | | S | Р | | | | Р | Р | Р | S | Р |
| | 15 | IT compliance with internal polices | | Р | Р | Р | S | | Р | Р | S | Р | S | Р | Р | Р | S | Р |
| Learning & Growth | 16 | Competent and motivated business and IT personel Knowledge, | Р | Р | Р | Р | S | S | Р | Р | S | Р | Р | Р | Р | Р | Р | Р |
| Learning, | 17 | Knowledge, expertise and initiatives for business innovation | Р | Р | Р | Р | S | Р | Р | Р | Р | Р | Р | Р | Р | Р | Р | Р |

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| | | 1 ad | ie 10 | : Ma | pping | g bet | | | | | | na B | usine | ess Pi | oces | 8 | |
|---|------|------|-------|------|-------|-------|------|------|--------|-------|-------|-------|-------|--------|-------|-------|-------|
| | | | | | | | IT | – Re | elateo | d Go | als | | | | | | |
| Domain | ITG1 | ITG2 | ITG3 | ITG4 | ITG5 | ITG6 | ITG7 | ITG8 | ITG9 | ITG10 | ITG11 | ITG12 | ITG13 | ITG14 | ITG15 | ITG16 | ITG17 |
| DSS01 - | | | | | | | | | | | | | | | | | |
| Operational Services | р | р | | | | | | | S | Р | Р | Р | Р | S | Р | S | Р |
| DSS02 –Action Service | p | S | p | Р | Р | Р | | Р | Р | Р | Р | Р | Р | Р | Р | Р | Р |
| DSS03 –Handling problems | p | S | p | Р | S | Р | Р | | S | Р | Р | Р | Р | Р | Р | Р | Р |
| DSS04 – Giving Directions | p | S | S | Р | | Р | | Р | S | Р | Р | Р | Р | Р | Р | Р | Р |
| DSS05 – Information System Services | р | S | p | Р | Р | S | S | | Р | Р | Р | Р | Р | Р | Р | Р | Р |
| DSS06 - Controlling | р | S | Р | S | Р | Р | Р | Р | Р | Р | Р | Р | Р | Р | Р | Р | Р |

Table 10: Mapping between Enterprise Goals and Business Process

3.2.4 Process Assessment Model (PAM)

PAM is a two-dimensional model consisting of a capability dimension and a process dimension. PAM can be used as a basis for an IT process capability assessment. There are two types of indicators in the assessment, namely:(Lusianah, 2020)

- a) Process capability attribute indicators for capabilities level 0 to level 5. These capability attribute process indicators are used for the COBIT 5 assessment process in the form of:
 - a. General Practice (Generic Practice (GP).
 - b. Generic Work Product (GWP).
- b) Process performance indicators for level one capabilities, including base practice and work products.

3.2.5 Process Capability Model (PCM)

*Process Capability Model*used to measure the maturity level of IT Enterprise, refer to ISO/IEC 15504 as the standard for the assessment process. Process Capability Model provides measurement information on organizational or company processes and management. There are six levels of model capability. The capability level of a process is measured based on an assessment of the process attributes (PA) at each level. Each attribute defines a specific aspect of the process capability. PA is used to assess whether the process has achieved its goals or not. However, it does not apply at level 0 which is incomplete because at this level it is not executed or fails to achieve the process objectives so it does not have attributes. The following are the levels of the Process Capability Model along with the PA in each process:(Amali, 2020)

- a) Level 0 Incomplete Process or Incomplete Process
- b) Level 1 Performed Process

PA 1.1 Process Performance

- c) Level 2 Process managed (Management Process) PA 2.1 Performance Management PA 2.2 Work Product Management
- d) Level 3 Process Established (Established Process) PA 3.1 Process Definition PA 3.2 Process Deployment
- e) Level 4 Predictable Process PA 4.1 Process Measurement PA 4.2 Process Control
- f) Level 5 Optimizing Process PA 5.1 Process Innovation PA 5.2 Process Optimization

The results of the calculation of the value of the Process Capability Model can be concluded into four levels, namely:

a) N-Not Achieved, if the assessment result is between 0% - 15%.

- b) P -*Partially Achieved*, if the results of the assessment are between > 15% 50%.
- c) L -Largerly Achieved, if the assessment results are between >50% 85%.
- d) F -*Fully Achieved*, if the assessment results are between > 85% 100%.

4. Results and Discussion

4.1 Validity Test

Table 11: Validity Test DSS01 Operasional Services

| DSS01 Operasional Services | | | | | |
|--|--------------|---------|-----------------|---------|---------|
| | Pro | ocess C | apabil (PCM) | • | del |
| Question | Level 1 | Level 2 | Level 3 | Level 4 | Level 5 |
| Your work is tied to BPJS? | \checkmark | | | | |
| Is the flow of service from registration to getting the drug clear? | \checkmark | | | | |
| Pharmacists provide good service by explaining drug information including drug names, how to use drugs and side effects | ✓ | | | | |
| The services provided by all officers at the puskesmas were polite and friendly | \checkmark | | | | |
| The services provided by puskesmas staff do not differentiate between patients who use insurance (BPJS) and patients who do not use insurance (general). | ✓ | | | | |
| Health center service standards have been properly considered, maintained and improved on an ongoing basis | ✓ | | | | |

Table 12: Validity Test DSS02 Action Service

| DSS02 Action Service | | | | | |
|---|---------|--------------|-----------|----------|---------|
| | Proc | ess Capa | ability N | Iodel (P | CM) |
| Question | Level 1 | Level 2 | Level 3 | Level 4 | Level 5 |
| Queue cards are obtained easily and clearly? | • • | \checkmark | | | |
| Health center services are easy and fast | | \checkmark | | | |
| The patient understands the use of the BPJS card | | \checkmark | | | |
| Patients understand the flow of services at the health center | | \checkmark | | | |

Table 13: Validity Test DSS03 Handling Problems

| Domain DSS03 Handling Problems | | | | | |
|---|---------|---------|---------------|---------|---------|
| | Pro | cess C | apabil PCM | • | odel |
| Question | Level 1 | Level 2 | Level 3 | Level 4 | Level 5 |
| The doctor gives a detailed explanation of the pain suffered by the patient | | | | | √ |
| Puskesmas officers are always proactive in managing problems | | | | | ✓ |

Table 14: Validity Test DSS04 Giving Directions

| Domain DSS04 Giving Directions | | | | | |
|---|---------|---------|-----------------|---------|--------------|
| | Pro | | apabil (PCM) | • | odel |
| Question | Level 1 | Level 2 | Level 3 | Level 4 | Level 5 |
| If there is something the patient does not understand, the puskesmas staff immediately provides a detailed explanation | | | | | ✓ |
| Health center staff listen patiently to patient questions and complaints and understand patient needs and provide solutions | | | | | ✓ |
| Health center staff can manage errors that occur either intentionally or unintentionally | | | | | \checkmark |
| Puskesmas officers can identify problems that arise to find appropriate and fast solutions | | | | | ✓ |

Table 15: Validity Test DSS05 Information System Services

| Domain DSS05 Information System Services | | | | | |
|--|------|--------|-----------------|-------------|----------|
| | Pro | cess C | apabil (PCM) | • | odel |
| Question | _ | | 3 | | 2 |
| | el] | el 2 | vel 3 | vel 4 | evel 5 |
| | Lev | Lev | Lev | Lev | Lev |
| Puskesmas staff are able to manage and monitor IT infrastructure on an ongoing basis | | | √ | | <u> </u> |
| All information assets and patient data stored are well protected from malware viruses | | | \checkmark | | |
| All patient data is always updated | | | \checkmark | | |
| Patient information and personal data are never leaked to the public | | | \checkmark | | |
| The computer used during registration has experienced problems | | | \checkmark | | |

Table 16: Validity Test DSS06 Controling

| Domain DSS06 Controling | | | | | |
|---|---------|---------|-----------------|---------|----------|
| | Pro | ocess C | apabil (PCM) | • | del |
| Question | Level 1 | Level 2 | Level 3 | Level 4 | Level 5 |
| Is the waiting room at the puskesmas service clean and comfortable? | | | √ | | <u> </u> |
| The opening hours of puskesmas services are in accordance with the schedule (service opening time and closing time) | | | ✓ | | |
| The expiration date is listed on the medicine | | | \checkmark | | |
| Drugs in good packaging | | | \checkmark | | |
| The puskesmas staff pays attention to the patient or his delivery person | | | √ | | |

4.2 Hypothesis Testing

Table 17: Hypothesis Testing DSS01 Operational Services

| DSS01 Operational Services | | | | | |
|--|---------|---------|---------|----------|---------|
| | Process | Capab | ility M | lodel (H | PCM) |
| Question | Level 1 | Level 2 | Level 3 | Level 4 | Level 5 |
| Your work is tied to BPJS? | 50% | | | | |
| Is the flow of service from registration to getting the drug clear? | 96.67% | | | | |
| Pharmacists provide good service by explaining drug information including drug names, how to use drugs and side effects | 93.33% | | | | |
| The services provided by all officers at the puskesmas were polite and friendly | 96.67% | | | | |
| The services provided by puskesmas staff do not differentiate between patients who use insurance (BPJS) and patients who do not use insurance (general). | 85% | | | | |
| Health center service standards have been properly considered, maintained and improved on an ongoing basis | 100% | | | | |
| Overall Value | 87% | | | | |

Table 18: Hypothesis testing DSS02 Action Service

| DSS02 Action Service | | | | | |
|---|---------------|---------|---------|---------|---------|
| | Process Capab | | | | |
| Question | Level 1 | Level 2 | Level 3 | Level 4 | Level 5 |
| Queue cards are obtained easily and clearly? | | 100% | | | |
| Health center services are easy and fast | | 100% | | | |
| The patient understands the use of the BPJS card | | 3.33% | | | |
| Patients understand the flow of services at the health center | | 6.67% | | | |
| Overall Value | | 90% | | | |

Table 19: Hypothesis Testing DSS03 Handling problems

Domain DSS03 Handling problems Process Capability Model (PCM) Question Level 4 Level 5 2 \mathfrak{c} [level] Level level The doctor gives a detailed explanation of the pain suffered by the patient 100% Puskesmas officers are always proactive in managing problems 100% Overall Value 100%

Table 20: Hypothesis Testing DSS04 Giving Directions

Domain DSS04 Giving Directions

| | Proc | ess Ca | pabilit | y Moc | lel (PCM) |
|--|---------|---------|---------|---------|-----------|
| Question | Level 1 | Level 2 | Level 3 | Level 4 | Level 5 |
| If there is something the patient does not understand, the puskesmas staff immediately provides a detailed explanation | | | | | 100% |
| Health center staff listen patiently to patient questions and complaints and understand patient needs and provide solutions | | | | | 96.67% |
| Health center staff can manage errors that occur either intentionally or unintentionally | | | | | 100% |
| Puskesmas officers can identify problems that arise to find appropriate and fast solutions | | | | | 100% |
| Overall Value | | | | | 99% |

Table 21: Hypothesis Testing DSS05 Information System Services

Domain DSS05 Information System Services

| | Pro | cess Ca | apability Mo | odel (P | CM) |
|--|---------|---------|--------------|---------|---------|
| Question | Level 1 | Level 2 | Level 3 | Level 4 | Level 5 |
| Puskesmas staff are able to manage and monitor IT infrastructure on an ongoing basis | | | 76.67% | | |
| All information assets and patient data stored are well protected from malware viruses | | | 100% | | |
| All patient data is always updated | | | 70% | | |
| Patient information and personal data are never leaked to the public | | | 100% | | |
| The computer used during registration has experienced problems | | | 50% | | |
| Overall Value | | | 79.33% | | |

Table 22: Hypothesis Testing DSS06 Proses Controling

Domain DSS06 Proses Controling

Process Capability Model (PCM)

| Question | level 1 | level 2 | evel 3 | evel 4 | s level |
|---|---------|---------|--------|--------|---------|
| Is the waiting room at the puskesmas service clean and comfortable? | Π | Π | 100% | Η | |
| The opening hours of puskesmas services are in accordance with the schedule (service opening time and closing time) | | | 100% | | |
| The expiration date is listed on the medicine | | | 88.33% | | |
| Drugs in good packaging | | | 96.67% | | |
| The puskesmas staff pays attention to the patient or his delivery person | | | 96.67% | | |
| Overall Value | | | 96.25% | | |

4.3 Analysis of Hypothesis Testing Description

Hypothesis Test Results, namely:

- a. Based on Table 4.7 DSS Hypothesis Test 01 Operational Service Process, all questions are at level 1 with an overall score of 87%.
- b. Based on Table 4.8 Hypothesis Testing DSS 02 Action Service Process, all questions are at level 2, with an overall score of 90%.

- c. Based on Table 4.9 DSS Hypothesis Test 03 Problem Handling Process, all questions are at level 5, with an overall score of 100%.
- d. Based on Table 4.10 DSS 04 Hypothesis Testing Process of Giving Directions, all questions are at level 5, with an overall score of 99%.
- e. Based on Table 4.11 DSS Hypothesis Test 05 Information System Service Process, all questions are at level 3, with an overall score of 79.33%.
- f. Based on Table 4.12 Hypothesis Testing DSS 06 Controlling Process, all questions are at level 3, with an overall score of 96.25%.

4.4 Capability Level Achievement

| Process Name | Level 1 | Level 2 | Level 3 | Level 4 | Level 5 |
|--|----------------|---------|---------|---------|---------|
| Rating by criteria Capability Level Achieved | F (87%) | | | | |
| legends: | | | | | |
| N (Not Achieved, 0-15%) P (Partially Achieved, | >15-50) | | | | |
| L (Largely Achieved, >50-85%) F (Fully Achiev | ved, >85-100 | %) | | | |

 Table 24: Achievement of DSS Capability Level 02 Managing Services & Incidents

| Process Name | Level 1 | Level 2 | Level 3 | Level 4 | Level 5 |
|--|---------|----------------|---------|---------|---------|
| Rating by criteria Capability Level Achieved | | F (90%) | | | |
| legends: | | | | | |
| N (Not Achieved, 0-15%) P (Partially Achieved, >15-50) | | | | | |
| L (Largely Achieved, >50-85%) F (Fully Achieved, >85-100%) | | | | | |

Table 25: Achievement of DSS Capability Level 03 Managing Problems

| Process Name Rating by criteria Capability Level Achieved | Level 1 | Level 2 | Level 3 | Level 4 | Level 5 F(100%) |
|---|--------------|---------|---------|---------|--------------------|
| Legends: | | | | | |
| N (Not Achieved, 0-15%) P (Partially Achieved, | >15-50) | | | | |
| L (Largely Achieved, >50-85%) F (Fully Achiev | ved, >85-100 | %) | | | |

Table 26: Achievement of DSS Capability Level 04 Managing Sustainability

| Process Name Rating by criteria Capability Level Achieved | Level 1 | Level 2 | Level 3 | Level 4 | Level 5 F(99%) |
|---|--------------|---------|---------|---------|-------------------|
| legends: | | | | | |
| N (Not Achieved, 0-15%) P (Partially Achieved, >15-50) | | | | | |
| L (Largely Achieved, >50-85%) F (Fully Achiev | ved, >85-100 | %) | | | |

Table 27: Achievement of DSS Capability Level 05 Managing Security Services

| Process Name | Level 1 | Level 2 | Level 3 | Level 4 | Level 5 |
|--|-----------|---------|-------------------|---------|---------|
| Rating by criteria Capability Level Achieved | | | L (79.33%) | | |
| legends: | | | | | |
| N (Not Achieved, 0-15%) P (Partially Achieved | , >15-50) | | | | |
| L (Largely Achieved, >50-85%) F (Fully Achieved, >85-100%) | | | | | |

Table 28: Achievement of DSS Capability Level 06 Managing Business Process Control

| Process Name | Level 1 | Level 2 | Level 3 | Level 4 | Level 5 |
|--|---------|---------|-------------------|---------|---------|
| Rating by criteria Capability Level Achieved | | | F (96.25%) | | |
| legends: | | | | | |
| N (Not Achieved, 0-15%) P (Partially Achieved, | >15-50) | | | | |
| L (Largely Achieved, >50-85%) F (Fully Achiev | | %) | | | |

4.5 Analysis of Capability Level Achievement Description

Results of Capability Level Achievement, namely:

- a) Based on Table 21 Achievement of DSS 01 Capability Level Operational Service Processes, all questions are at level 1 with an overall score of 87%, with a value of F (Fully Achieved).
- b) Based on Table 22 Achievement of Capability Level DSS 02 Action Service Process, all questions are at level 2, with an overall score of 90%, with a value of F (Fully Achieved).
- c) Based on Table 23 Achievement of DSS 03 Capability Level Problem Handling Process, all the questions are at level 5, with an overall score of 100%, with a value of F (Fully Achieved).
- d) Based on Table 24 Achievement of DSS 04 Capability Level Process of Providing Directions, all questions are at level 5, with an overall score of 99%, with a value of F (Fully Achieved).
- e) Based on Table 25 Achievement of DSS 05 Capability Level Information System Service Process, all questions are at level 3, with an overall score of 79.33%, with a value of L (Largely Achieved).
- f) Based on Table 26 Achievement of Capability Level DSS 06 Process Controling, all questions are at level 3, with an overall score of 96.25%, with a value of F (Fully Achieved).

4.6 Spider Graphics

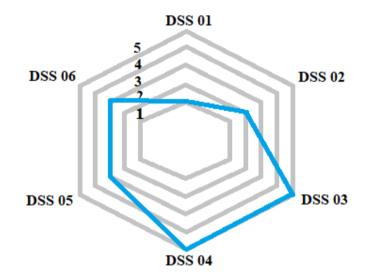


Figure 3: Spider Graphics (Reynaldi, 2021)

4.7 Gaps Analysis

| Table 29: Gap Analysis | | | | | |
|-----------------------------------|---------------------------------|------------------------------------|-----------------|--|--|
| Domain | Expected Capability Level | Capability Level Achievement | Gap Analysis | | |
| DSS01 Operational Services | 5 | 1 | 4 | | |
| DSS02 Action Service | 5 | 2 | 3 | | |
| DSS03 Handling problems | 5 | 5 | 0 | | |
| DSS04 Giving Directions | 5 | 5 | 0 | | |
| DSS05 Information System Services | 5 | 3 | 2 | | |
| DSS06 Controlling | 5 | 3 | 2 | | |

5. Conclussion

Based on the explanation in the discussion above, it can be concluded as follows:

- a) Operational Services, all data distribution is at level 1 (the process is carried out) with an overall value of 87%, fully achieved, this shows that operational services still need to be optimized.
- b) Action services, all data distribution is at level 2 (managed process), with an overall value of 90%, fully achieved, this shows that action services for BPJS health patients still need to be optimized.

- c) Problem handling, all data distribution is at level 5 (optimized process), with an overall score of 100%, fully achieved, this shows that the process of handling problems in BPJS health patients has been carried out properly.
- d) Provide directions, all data distribution is at level 5 (optimized process), with an overall score of 99%, fully achieved, this shows that the service in providing directions to BPJS health patients has been carried out properly.
- e) Information system services, all data distribution is at level 3 (determined process), with an overall score of 79.33%, largely achieved, this shows that the information system service process is considered not good.
- f) Controlling, all data distribution is at level 3 (determined process), with an overall value of 96.25%, fully achieved, this shows that the controlling process still needs to be optimizeds.

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References

- Al-Rasyid, A. (2015). Analisis Audit Sistem Informasi Berbasis COBIT 5 Pada Domain Deliver, Service, and Support (DSS) (Studi Kasus: SIM- BL di Unit CDC PT Telkom Pusat. Tbk). Universitas Telkom Bandung.
- Amali, L. N., Katili, M. R., Suhada, S., & Hadjaratie, L. (2020). The measurement of maturity level of information technology service based on COBIT 5 framework. *Telkomnika (Telecommunication Computing Electronics and Control)*, 18(1), 133-139.
- Arens, Alvin. A., Randal J. Elder, and M. S. B. (2003). Auditing and assurance services: An Integrated approach (9th edition). Upper Saddle River. In New Jersey : Pearson Education, Inc.
- Astuti, H. M., Muqtadiroh, F. A., Darmaningrat, E. W. T., & Putri, C. U. (2017). Risks assessment of information technology processes based on COBIT 5 framework: A case study of ITS service desk. *Procedia Computer Science*, 124, 569-576.
- Fitriati, R., & Nuralam, I. P. (2019, August). Joint Responsibility: A trap in managing social security agency for healthcare social funds?. In *Annual International Conference of Business and Public Administration (AICoBPA 2018)* (pp. 174-177). Atlantis Press.
- ISACA. (2012). COBIT 5 : A Business Framework for the Governance and Management of Enterprise IT.
- ISACA. (2013). COBIT 5 : Process Assessment Model.
- Lusianah. (2020). Prinsip-Prinsip COBIT 5. BINUS University.
- Nurhanifah, M. R., Wijaya, G., & Purnama, J. J. (2023). Audit of the Regional Development Planning Information System (Sipd) Using Cobit 5.0 Framework. *Jurnal Techno Nusa Mandiri*, 20(1), 22-30.
- Suyanti. (2019). Dimensions of Quality of Health and Midwifery Services. STIKes YPIP Majalengka.