

Effectiveness of the Electronic-Based Primary Care (P-Care) Service System at the Tapa Community Health Center, Bone Bolango Regency

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Abstract

The aim of this research is to find out how effective the Primary Care electronic-based service system is at the Tapa Community Health Center, Bone Bolango Regency. This research uses a descriptive method with a qualitative approach. The research results use theory according to Martani and Lubis (1987) to measure the effectiveness of an organization through 3 approaches, namely, Source, Process and Target. The research results show that electronic-based services using the Primary Care application at the Tapa Community Health Center, Bone Bolango Regency are not yet effective. The implementation of this application experienced system problems which often had errors due to insufficient computer capacity to be used in the application, causing managers to anticipate services manually and double entry of patient data, in addition to that, the availability of resources, in this case the Primary Care application manager, was inadequate. This can be seen from the fact that the admin who manages the application does not match his area of expertise, especially in relation to technology.

Keywords: Effectiveness, Public Service, Elektronik Government

Introduction

Public service is one of the benchmarks used to measure the success of task implementation and assess the performance of government officials within the bureaucracy (Sanger, 2008). Public service is a crucial driving force for implementing good governance. Public officials, the public, and the business sector certainly play a crucial role in improving public service performance. Several key reasons underlie the need for public service reform. Several key reasons behind the importance of public service reform in promoting good governance practices include: improving public service performance is considered important by stakeholders the government, citizens, and the business sector and the values that have traditionally characterized good governance practices are translated more easily and tangibly through public service (Andersen et al., 2021).

The public service phenomenon continues to face challenges, such as unclear service procedures, relatively high administrative costs, and so on. Van (2016) said that, this has led to a distrust of service providers, particularly the bureaucracy, leading the public to seek alternative ways to obtain services through certain methods, such as paying additional fees. Furthermore, the way services are provided to the public often do not meet expectations (James, 2009). The public is positioned as clients in need of assistance, so the provisions and wishes of bureaucratic officials

must be complied with.

This is undoubtedly due to the culture that has developed within the bureaucracy, not one of service, but rather one of power. Megawati et al. (2024) said that, efforts must be made to address this situation by improving the quality of sustainable public service implementation to meet local government expectations, as public service is the primary function of government provided to the public. Therefore, the implementation of public services is recognized when the principles of good governance are applied (Widanti, 2022). One characteristic of good governance is service quality. Therefore, the use of information and communication technology development is a government initiative (Przeybilovicz et al., 2018).

Discussing the development of superior government issues, accompanied by the development of technology and information during globalization, as well as government control. The further development of information technology in the context of globalization is closely linked. This is because governments are more open, effective, and efficient in implementing governance, and place greater demands on the government as a service provider, particularly regarding access to government information (Basu, 2004).

E-government services have emerged to meet the public's needs for creating superior government in a globalized world. E-government is the use of information and communication technology to implement efficient and effective government management and to provide transparent and satisfactory services by local governments. In short, one of the goals of e-government is to achieve excellent public services. This requires a serious commitment from the government to provide good bureaucracy.

Wahab & Arsyad (2015) explain that implementing an e-government system translates strict bureaucratic orders into complex and dynamic situations to facilitate various forms of interaction with other parties. In this process, the government can optimize the use of ICT to eliminate barriers to bureaucratic organization and form an integrated network of work processes to simplify access to all information and public services that government authorities must provide to implement good governance. Several factors play a crucial role in the success of e-government implementation: the availability of personnel, institutions, infrastructure, and comprehensive regulations (Altameem et al., 2006).

One such regulation is Presidential Regulation No. 95, issued in 2018, concerning the e-government system (SPBE). The development of this e-government-based system is, of course, applied to all sectors serving the public. Including the National Health Insurance System (JKN) Health Care Center Service System. The National Health Insurance (JKN) system covers both basic and advanced medical services. Primary care services include private physician practices, clinics, and luxury healthcare.

This is the first service provided to patients using BPJS before seeking other services. BPJS Health, which serves as the JKN System Organizational Body, developed a system designed for primary healthcare services. In other words, it is a primary care, online-based patient information system for BPJS (BPJS, 2016). BPJS Health, the JKN system organization, is expected to address the challenges of Indonesia's health development through the development of a health information system. A health information system is a crucial aspect of supporting health development.

This system is needed to implement and monitor health efforts so that these efforts are carried out effectively and efficiently. Accurate information, meticulous data collection, and informed decision-making are now essential. The development of information and communication technology plays a key role in promoting a more specialized health information system (Shiferaw & Zolfo, 2012). The use of information technology is an inevitable solution.

JKN has developed a primary care application, the first system dedicated to healthcare services, and an online training information system for patients with healthy BPJS participants. In collaboration with the BPJS, all primary clinics and other basic medical services are required to use this application. The Basic Care Application, commonly referred to as the P-care application, is a basic web-based service application aimed at supporting the payment process for primary care facilities for BPJS health participants (Ilahi et al., 2014).

This system facilitates data access to the BPJ server for registration, diagnostics, treatment, and laboratory services. Primary care facilities operating within the BPJS health care system must implement comprehensive medical services. Mohammad (2013) said that, the health services provided must be comprehensive and comprehensive, covering all aspects or a wide range to create the best quality of service.

The Digital Recording and Reporting System is one solution to the problems of manual/traditional systems. Basic care, as a digital application, should facilitate recording and reporting activities in health care facilities. In practice, P-care only records JKN participant visit activity, ensuring that non-JKN patient patients are recorded in other reporting systems. Community Health Centers (Puskesmas) are health care service facilities that implement public health initiatives and individual health activities as stipulated in Article 1 of Health Regulation No. Law No. 75 of 201-2020 concerning Community Health Centers (Puskesmas) and BPJS services promotes promotion and prevention efforts through the best public health services.

Improving primary health care services has long been a recurring theme among relevant stakeholders to increase the effectiveness and efficiency of the National Health Insurance (JKN) program. Various strategies have been implemented to ensure the willingness of first-level health facilities (FKTP) to implement a performance-based payment system. All of these interventions are considered Panarona, which will immediately improve the quality of primary health care. To date, the performance of primary health care has not achieved the expected goals.

In general, Indonesia's primary healthcare services lack comprehensive governance across all aspects of the chain of primary healthcare quality. This must be gradually improved collaboratively by all relevant stakeholders. This should begin with an agreement on the definition and location of primary healthcare services, as seen through their relationship to the National Health Insurance (JKN) as an individual healthcare financing system. Improving the quality of primary healthcare services is limited to strengthening your role as a gatekeeper, but also enhancing your role as a strategic purchaser or increasing advertising activities.

Improvements must be implemented comprehensively across all aspects necessary to ensure quality services. The implementation of electronic service systems, particularly in the use of Primary Care, often encounters obstacles in the service delivery process, resulting in suboptimal service delivery. The Tapa Community Health Center (Puskesmas) in Bone Bolango Regency is

one of the Community Health Centers in Gorontalo Province that has implemented the Primary Care application within its healthcare system. The use of the Primary Care application is expected to facilitate the Puskesmas' provision of services to the Tapa community.

However, over time, the application's service system has experienced frequent disruptions. This indicates that there are still issues with the use of the P-Care service system. For example, there is only one person managing the Primary Care application, compared to the required number of two. This situation creates a significant public complaint during service hours, making staff overwhelmed. Furthermore, the Primary Care application frequently experiences errors. P-Care staff at the Tapa Community Health Center frequently encounter difficulties entering BPJS patient data, resulting in double-entry.

Therefore, an evaluation of P-Care implementation is necessary, given that the application has been available since 2014. The various obstacles in implementing Primary Care regarding user satisfaction with the P-Care application necessitate a user satisfaction study. The study should prioritize perceived usefulness, defined as the extent to which staff at the Tapa Community Health Center believe using the Primary Care system will improve their performance (Tapa et al., 2025). Second, perceived ease of use, defined as the extent to which the public believes the information system is easy to use.

There are three approaches to measuring organizational effectiveness, as proposed by Dewi (2025): (1) The resource approach measures the effectiveness of inputs. This approach prioritizes the organization's success in obtaining resources, both physical and non-physical, that meet its needs; (2) The process approach examines the effectiveness of program implementation across all internal processes or organizational mechanisms; (3) The goals approach, which focuses on outputs, measures the organization's success in achieving planned outcomes.

Methods

This research uses a descriptive method with a qualitative approach. A descriptive method is a research method that provides an illustration of an object under study through data from a sample or population. According to Sugiyono (2012), a qualitative method is a research method used to investigate the natural state of an object. Qualitative descriptive research, on the other hand, describes the data from the respondents' perspectives, as they exist, in accordance with the research questions. Data are then analyzed based on respondent behavior, followed by reduction, triangulation, conclusions, and verification. Based on the aforementioned opinion, this study was conducted to understand the effectiveness of services at the Tapa Community Health Center in Bone Bolango Regency after implementing an electronic-based service system, namely the Primary Care application. The data collection instruments used in this study included primary data obtained through direct interviews with informants, as well as secondary data collected from observations, which included supporting information for the primary data. This research was conducted at the Tapa Community Health Center in Bone Bolango Regency.

Results and Discussion

Law No. 40/2004 concerning the National Social Security System (SJSN) establishes the principles of equality and social insurance for the National Health Insurance program. The principle of

equality ensures easy access to healthcare services for participants, while efficiency focuses on implementation following social insurance regulations. This is crucial for achieving universal coverage, so that participants receive quality healthcare without financial burden. Reforms in the healthcare system are needed, especially in developing countries, to address health disparities. Quality primary healthcare services can reduce disparities driven by race, ethnicity, and income. Therefore, a focus on improving the quality of primary healthcare services must be prioritized to improve public health and the effectiveness of the National Health Insurance (JKN).

Stakeholders have pushed for improvements in primary healthcare services to ensure the effectiveness and efficiency of JKN. Various strategies have been implemented, such as selecting primary healthcare facilities (FKTP) structures, performance-based payment systems, and increasing promotional benefits. However, despite these interventions, the performance of primary healthcare services remains far from expectations. The following is a discussion of the research findings obtained by researchers using the effectiveness indicators proposed by Lee & Kwak (1999): (1) Resource Approach; (2) Process Approach; (3) Goals Approach.

Resource Approach

BPJS Health, which functions as the institution managing the National Health Insurance (JKN) system, has created a system for primary healthcare services, namely the Primary Care application. This application is an online information system for BPJS Health patients. The Primary Care application, often referred to as the P-Care application, is a web-based application for basic services designed to support the payment process at primary healthcare facilities for BPJS Health participants (Sudarti & Rokhman, 2015). This system facilitates data access to the BPJS server, including for registration, diagnosis, therapy, and laboratory services. Primary healthcare facilities collaborating with BPJS Health are required to provide comprehensive healthcare services. Therefore, healthcare services must be comprehensive and address all aspects to ensure the highest quality of service (Ministry of Health, 2013).

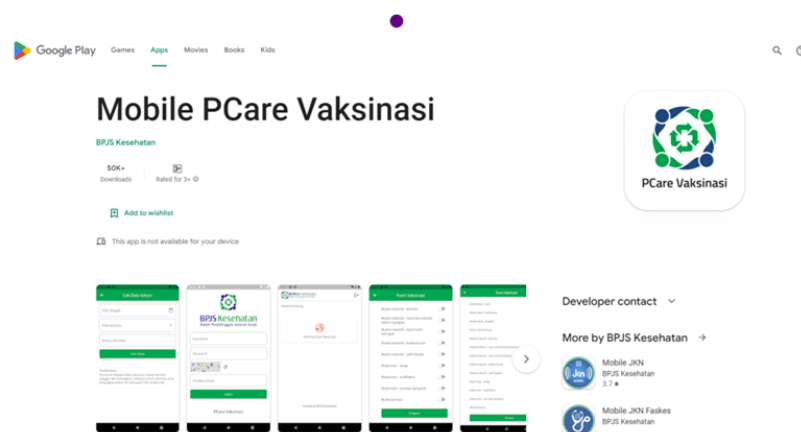


Figure 1. BPJS Health Primary Care Featured Features

The Tapa Community Health Center in Bone Bolango Regency has partnered with the Social Security Agency (BPJS) for its healthcare services. Since 2014, the Primary Care application has been implemented at this health center. The Primary Care application is the sole system used by the Tapa Community Health Center to serve BPJS patients and is the sole information system

available there. This application is used to input social data, patient examination data, and create referral letters for BPJS patients. Research shows that the implementation of the Primary Care application still requires improvement. In terms of resource availability, there is currently only one designated Primary Care application manager, in accordance with the available budget and applicable regulations. However, the service process often takes a long time, requiring residents to queue. This is due to the limited number of application operators, especially when the application experiences problems. Ideally, each polyclinic should have a P-Care application manager. Despite budget constraints, residents expect at least one additional manager: one for registration and one for general practice.

This effort is important to reduce problems such as system failures or lack of competence from managers, and most crucially, to avoid queues that can disrupt the quality of health services at the Tapa Community Health Center. Furthermore, in implementing the Primary Care application, infrastructure preparation, including hardware and software, is crucial. Adequate infrastructure will support the smooth implementation of this application. To support the use of the Primary Care application, the Tapa Community Health Center has provided the necessary facilities, such as computers, printers, internet connections, electricity, and a dedicated room for Primary Care application staff. However, despite this support, patient backlogs often occur at the Primary Care service unit when the system encounters problems. Furthermore, network connection disruptions often hamper Primary Care data entry due to application slowdowns, and backup devices such as generators are unavailable during power outages.

Process Approach

Problems arising in implementing the primary care application require one staff member to shoulder a heavy workload, sometimes requiring them to postpone their tasks until the next day to complete their work. Furthermore, duplicate data entry activities also increase the staff's workload, potentially leading to data entry errors. From this situation, it can be concluded that the performance impact of the primary care application has not been fully felt by all users. Furthermore, human resources are also a concern, as the application currently only has one administrator. Ideally, each polyclinic should have its own application system administrator, but for the scale of service delivery, at least two application administrators are needed one for the registration section and one for the general polyclinic to ensure optimal service delivery.

Goals Approach

The benefits of P-Care expressed by informants include convenience, efficiency, speed, practicality, effectiveness in service delivery, and increased staff productivity, which are perceived as highly beneficial. Using the P-Care application is smoother than manual data processing, significantly streamlining work. However, regular evaluation is essential for future improvements to the P-Care application.

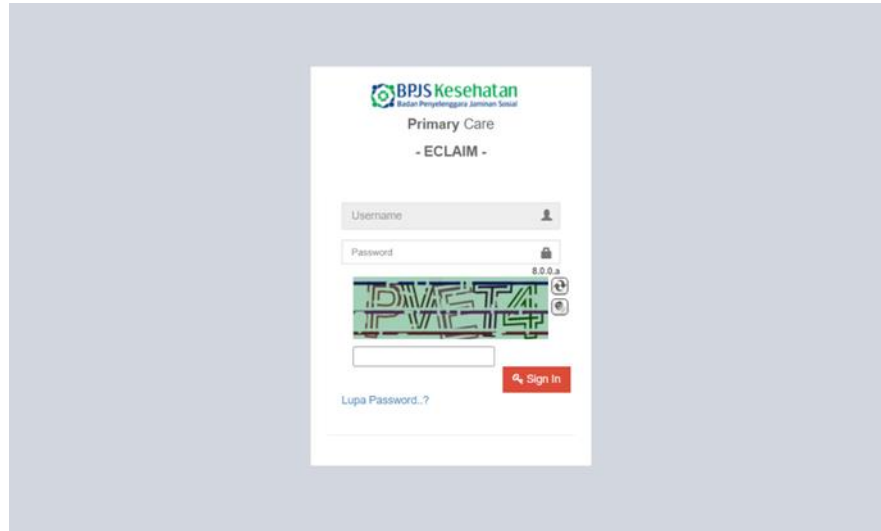


Figure 2. BPJS Health Primary Care E-Claim Feature

Perceived usefulness describes the extent to which users believe a particular technology will improve their performance. This perception is a crucial factor influencing the adoption of information technology. Usefulness is defined as a measure of how much benefit users will derive from the technology. In addition, it is important to improve internet connections, continuously improve the application system, and have a specific policy regarding the Primary Care application to facilitate the monitoring process at each community health center by the health service and BPJS.

Conclusion

Based on research findings, it was discovered that the Tapa Community Health Center (Puskesmas) had been using the Primary Care application, and this system had provided positive benefits for both users and Primary Care service managers. However, over time, the application encountered several system issues, often resulting in errors, requiring managers to anticipate manual service delivery and duplicate patient data entry. Furthermore, the availability of resources, particularly for Primary Care application managers, is currently inadequate. Therefore, ongoing evaluation by relevant parties regarding the implementation of this technology-based healthcare system is necessary to ensure effective healthcare delivery. Suggestions for improving services at the Tapa Community Health Center include increasing the capacity of resources, particularly those managing the Primary Care application. Furthermore, regular inspections and improvements to the Primary Care application system are needed to mitigate system disruptions. Continuous evaluation efforts are needed in all aspects of technology-based healthcare services.

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