

Article

# The Effectiveness of PLN Mobile Application in Improving Customer Service at PT. PLN (Persero) UP3 Bengkulu

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**Abstract:** PLN Mobile Application is a mobile-based customer self-service that integrates directly with the Unified Complaint and Complaint Application (APKT) and the Centralized Customer Service Application (AP2T). Previously, PLN services were conducted through Call Center 123, Facebook, Twitter, Email, and PLN's website. This study aims to determine the Effectiveness of the PLN Mobile Application in Improving Customer Service at PT. PLN (Persero) UP3 Bengkulu. The research method used is qualitative research. Data collection techniques include interviews and documentation. This study uses Purposive Sampling technique to identify research informants. There are 4 research informants consisting of individuals who understand and are knowledgeable about the PLN Mobile application and its users. The data analysis techniques used include data reduction, data presentation, and drawing conclusions. The data sources used are primary and secondary data. Based on the research results and discussions using the effectiveness theory according to Budiani in Purnamawati, et al. (2022:14), which include program target accuracy, program socialization, program objectives, and program monitoring, it can be concluded that the effectiveness of the PLN Mobile application in improving customer service at PT. PLN (Persero) UP3 Bengkulu, in general, has been running well and effectively. However, out of the four effectiveness program indicators used, it turns out that one is not fully effective, namely the program target accuracy. Looking at the number of PLN (Persero) UP3 Bengkulu customers, there are still 5% of customers who do not know and understand how to use the PLN Mobile application, because elderly customers do not have supporting smartphones, face signal difficulties, and customers who are not skilled in using digital technology. For customers without supporting smartphones, facing signal difficulties, customers not skilled in using digital technology, and the elderly, they can seek assistance from close family members who understand technology and have supporting smartphones to utilize the PLN services through the PLN Mobile application.

**Keywords:** Effectiveness, PLN Mobile, Customer Service

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## 1. Introduction

The development of technology that is increasingly advanced in the current era encourages companies to adapt quickly to the times. Information and communication technology is one of the main fields in technological development. One form of this progress is seen through the use of the internet which has become an inseparable part of people's daily lives. The internet has penetrated into various lines of life, from online entertainment to online shopping, as well as being an important tool in learning and communication activities. This phenomenon reflects how the internet has created a profound transformation for humans to interact with the world around them.

In Indonesia, internet users continue to grow year on year, demonstrating the rapid adoption of technology and its deepening integration into people's daily lives. Based on data from the Indonesian Internet Service Providers Association (APJII), before the Covid 19 pandemic occurred, there were 175 million internet users in Indonesia. Meanwhile, based on the latest data from APJII, in 2023 internet users in Indonesia will reach around 215 million people. With the advancement of existing technology, companies in various sectors have begun to develop the technology they have to provide convenience in carrying out their services, including the State Electricity Company (PLN) starting to develop technology to provide convenience in improving customer service.

PT PLN (Persero) is the largest electricity company under the auspices of a State-Owned Enterprise (BUMN) that is responsible for managing, providing and serving electricity needs for the public interest and is committed to providing reliable and quality electricity services to customers. Efforts to improve customer service PT PLN (Persero) has innovated by creating reliable, creative and high-quality service products to make it easier to access all customer services without having to come to the office. This company created a mobile-based application, namely the PLN Mobile application. The PLN Mobile application is a mobile-based customer self service that is directly integrated with the Integrated Complaints and Complaints Application (APKT) and the Centralized Customer Service Application (AP2T). Previously, PLN services were carried out through Call Center 123, Facebook, Twiter, Email and PLN Web ([www.pln.co.id](http://www.pln.co.id)).

The launch of the PLN Mobile application was motivated by the increasing number of internet and smartphone users at this time, as well as the desire of customers to get faster service in completing their affairs. The PLN Mobile application was launched simultaneously in several regions of Indonesia on October 31, 2016, coinciding with the 71st National Electricity Day. But at the end of 2020, the PLN Mobile application comes with many uses that can make it easier to serve customers, as stipulated in the PT PLN (Persero) board of directors regulation No.0110.P / DIR / 2020 concerning the implementation of the PLN Mobile application within PT PLN (Persero). The PLN Mobile application can be accessed by all customers through the playstore and app store applications on their smartphones, for customers who have used the PLN Mobile application can register another customer ID in one account.

By utilizing the PLN Mobile application, PLN services to customers are now simpler, faster and there are no reports that are scattered or not in accordance with the work that has been done. The process becomes more efficient and saves time, and avoids candidacy costs. In addition, the system has been well integrated, easy to use, transparent, accurate and can be monitored and controlled in real-time through one application. The PLN Mobile application is designed to provide convenience to customers in accessing the necessary services, such as obtaining information about electricity bill notifications, purchasing tokens and electricity payments, applying for power changes, requesting new / temporary installations, monitoring postpaid electricity usage, recording independent meter numbers, monitoring token purchases, information on the progress of disturbance resolution, outage and maintenance notifications, complaints and complaints.

For customers who have made reports of complaints and complaints or submitted new or temporary installations and power changes in the PLN Mobile application, PLN UP3 Bengkulu immediately processes the report and contacts the customer via the telephone number that has been registered in the PLN Mobile application. The time required for customers to wait for the application process for new electricity installation or change the power is within 3-5 working days after making payment and the officer will conduct a survey directly to the location to carry out the installation.

In the process of complaints and complaints with a maximum recovery time of 1 hour, officers from the nearest PLN unit will immediately come to find out more about the problems that occur, then PLN UP3 Bengkulu will follow up on the problems reported by the customer, where previously complaints and complaints by telephone were not responded to quickly because customer service officers needed to find the technician closest to the area, causing annoyed customers to wait 2-3 hours for the officer to come and repair

the network. This also depends on the queue in the area, the distance between the location and the office and whether or not there are many people who install electricity, change power, complaints and complaints, if the location is not far away and there are few people who make requests for complaints, they are usually processed faster than that time. If it has passed that time but has not been processed, the customer can contact Call Center 123 or make a complaint again in the PLN Mobile application and the customer can see where the progress has been.

The PLN Mobile application can be said to be effective if it has achieved the goals that have been set. The purpose of launching the PLN Mobile application is to improve better customer service in providing convenience for customers to get the latest information related to PLN services anywhere and anytime without having to come to the PLN office.

Based on data sources obtained from PT PLN (Persero) UP3 Bengkulu in 2024, the comparison of the number of customers with the number of PLN Mobile application users in PLN UP3 Bengkulu is still not fully customers using the PLN Mobile application. The total number of customers at PLN UP3 Bengkulu in 2023 was 656,269 people, while the number of PLN Mobile application users at PLN UP3 Bengkulu amounted to 623,453 people. Can be seen in Table 1.

**Table 1.** Data on Customers and Users of the PLN Mobile Application At PT PLN (Persero) UP3 Bengkulu 2023

<b>Customer Data and PLN Mobile Application Users In PT PLN (Persero) UP3 Bengkulu 2023</b>	
<b>PLN Customers</b>	656,269 People
<b>PLN Mobile Application Users</b>	623,453 People

Source: PT. PLN UP3 Bengkulu

Although PLN has provided easy access to customers through PLN Mobile, it turns out that there are still some customers who do not understand how to use and know the application. Some of them feel it is more effective if they come directly to the PLN office to receive direct service and get a more detailed explanation. This is due to the lack of maximum socialization conducted by PLN officers directly to customers. In addition, in providing services using the PLN Mobile application, there are also obstacles such as signal interference or difficult signals for areas far from the city, customers who do not have android smartphones and customers who are less skilled in using digital technology, especially the elderly, have difficulty performing electricity services through the PLN Mobile application.

From these problems, the team from PT PLN (Persero) UP3 Bengkulu continues to socialize the ease of using electricity services through PLN Mobile to all its customers in the hope that PLN Mobile application users continue to increase and PLN continues to make changes according to the needs of its customers. However, there has been no research that comprehensively analyzes the effectiveness of the PLN Mobile application in improving customer service.

## **2. Materials and Methods**

The focus of this research is the effectiveness of the PLN Mobile application in improving customer service at PT PLN (Persero) UP3 Bengkulu by describing the phenomena that occur in the field using the theory of effectiveness, namely the accuracy of program targets, program socialization, program objectives and program monitoring. So that it can determine the effectiveness of the PLN Mobile application in improving customer service at PT PLN (Persero) UP3 Bengkulu. Budiani in Purnamawati, et al (2022: 14) states that to

measure the effectiveness of a program can be done using the following variables: (1) Program target accuracy: The extent to which program participants are right with the predetermined targets, (2) Program socialization: The ability of program organizers to conduct program socialization so that information about program implementation can be conveyed to the community in general and target program participants in particular, (3) Program objectives: The extent to which the results of program implementation are in line with the program objectives that have been previously determined, (4) Program monitoring: Activities carried out after the implementation of the program as a form of attention to program participants.

The research method used in this study is qualitative research. The research informants were taken by purposive sampling, data collection techniques and data analysis were qualitative and the results of qualitative research emphasized meaning rather than generalization (Sugiyono, 2015: 15). The criteria made by the author to determine informants are as follows: (1) People who know, understand, understand about the PLN Mobile application and are directly involved in managing, developing, maintaining and updating electricity service features in the PLN Mobile application, (2) Customers who use the PLN Mobile application. The data collection techniques used in this research are interviews and documentation.

### 3. Results and Discussion

This research uses the theory of effectiveness according to Budiani. Based on this, the researcher describes the research results related to the accuracy of program targets, program socialization, program objectives and program monitoring.

#### Target Accuracy

The PLN Mobile application is implemented based on the regulation of the board of directors of PT PLN (Persero) No.0110.P / DIR / 2020. According to Budiani in Purnamawati, et al (2022: 14) suggests that the accuracy of the program target, namely with regard to the extent to which the program participants are right with the predetermined targets. Based on the results of the research, the target of the PLN Mobile application program is customers and prospective customers who want to install new electricity are required to go through the PLN Mobile application. The launch of the PLN Mobile application was motivated by the increasing number of internet and smartphone users at this time, as well as the desire of customers to get faster service in completing their affairs. Data on the number of customers and the number of PLN Mobile application users in 2023 is in Table 2 which can be seen below:

**Table 2.** Data on the number of customers and the number of users of the PLN Mobile application at PT. PLN (Persero) UP3 Bengkulu 2023

<b>Number of Customers of PT PLN (Persero) UP3 Bengkulu 2023</b>	
<b>Number of Customers</b>	656,269 People
<b>Target and Realization of PLN Mobile Application 2023</b>	
<b>Target</b>	<b>Total Users of PLN Mobile Application</b>
<b>567,354 people</b>	623,453 people

Source: Internal data of PT PLN (Persero) UP3 Bengkulu 2024

Based on the results of the study, it is known that PLN Mobile application users in 2023 have reached the predetermined target. However, when viewed from the number of customers, not all customers of PT PLN (Persero) UP3 Bengkulu use the PLN Mobile Application, this is because there are some customers who do not have supporting smartphones, elderly customers and customers who are literate so they cannot access the

PLN Mobile application. Customers also understand how to use the PLN Mobile application, because in one application there are many uses, there are several PLN service feature menus and there are already step-by-step instructions on each PLN service feature menu that makes it easier for customers to transact regarding electricity services, such as the new electricity installation feature menu, change power, complaints, record meter numbers, monthly electricity payments, token purchases, periodic power failure notifications, and others.

### **Program Socialization**

According to Budiani in Purnamawati, et al (2022: 14) states that program socialization, namely the ability of program organizers to conduct program socialization so that information about program implementation can be conveyed to the community in general and target program participants in particular. In this study, program socialization is the ability of employees to provide information to customers about the PLN Mobile application. This socialization is carried out so that all customers understand and know how to use the PLN Mobile application. Based on the results of the study, it is known that the socialization of the PLN Mobile application program is carried out by the Information and Communication section, the customer service and marketing section and all PLN employees every day when there is free time in various ways to socialize the PLN Mobile application. Socialization is carried out to publish the PLN Mobile application through social media, electronic media, and print media. In addition, efforts to introduce more about the PLN Mobile application, PLN (Persero) UP3 Bengkulu also conducts socialization directly to customers when customers come to the PLN office, socialization to campuses, schools, villages, districts and sub-districts, and socialization is also carried out by field officers directly providing clearer information about the PLN Mobile application. Many customers find out about the PLN Mobile application from employees or field officers directly when they have problems with electricity.

### **Program Objectives**

The purpose of the program is what the program was created for. According to Budiani in Purnamawati, et al (2022: 14) argues that the purpose of the program is the extent to which the suitability between the results of program implementation and the previously set program objectives. The existence of program objectives is the reason why the program must exist and what is targeted. The intended program objective is what the PLN Mobile application was created for and the results of the application of the PLN Mobile application have achieved the set objectives or not. Based on the results of the research, it is known that the objectives of the PLN Mobile application program have achieved their objectives, namely to improve better customer service in making it easier for customers to get the latest information related to PLN services anywhere and anytime without having to come to the PLN office. With the PLN Mobile application, it provides convenience for electricity services in one application, such as new electricity installations, complaints and complaints, changing power, power outage notifications, token exhaustion notifications and others.

### **Program Monitoring**

According to Budiani in Purnamawati, et al (2022: 14) suggests that program monitoring, namely activities carried out after the implementation of the program as a form of attention to program participants. Program monitoring is carried out to monitor the PLN Mobile application whether it has run smoothly or not. Based on the results of the study, it is known that monitoring of the PLN Mobile application program is carried out every day by the respective field sections, because every incoming complaint report is directly monitored by the manager and then forwarded to the field officers to be followed up in accordance with existing complaints. With the PLN Mobile application, the service is more open, transparent, saves time, money and energy because it can be done anywhere and anytime, compared to manual services where the process takes a long time, long queues



and is not transparent. Through the PLN Mobile application, officers are more responsive to incoming complaint reports and can track the progress of complaint reports where they have been followed up.

#### 4. Conclusion

Based on the results of the research and discussion, the following conclusions are drawn:

##### 1. Accuracy of program targets

In implementing the PLN Mobile application in 2023, the target of the PLN Mobile application has reached the predetermined target. However, when viewed from the number of customers of PT PLN (Persero) UP3 Bengkulu in 2023, it turns out that there are still 5% of customers who do not know and understand how to use the PLN Mobile application, because elderly customers do not have supporting smartphones, difficult signals and customers who are less skilled in using digital technology.

##### 2. Program Socialization

For the criteria of program socialization, it can be said to be effective because from the results of various socializations that have been carried out, the number of PLN Mobile application users continues to increase beyond the predetermined target.

##### 3. Program Objectives

The purpose of the program has been running well and effectively where the customer service of PT PLN (Persero) UP3 Bengkulu has improved better than before. This is because in one application there are various PLN service feature menus that make it easy for customers to conduct electricity service transactions anywhere and anytime.

##### 4. Program Monitoring

Program monitoring can also be said to be effective because PT PLN (Persero) UP3 Bengkulu employees in each section monitor the program every day in Real Time and every incoming report from customers goes directly to the manager, then is forwarded to field officers according to incoming complaints to be followed up quickly.

The effectiveness of the PLN Mobile application in improving customer service at PT PLN (Persero) UP3 Bengkulu has generally run well and effectively. However, of the four indicators of program effectiveness used, it turns out that there is one that has not been fully effective, namely the accuracy of program targets. It can be seen from the number of PLN (Persero) UP3 Bengkulu customers that there are still 5% of customers who do not know and understand how to use the PLN Mobile application, because elderly customers do not have smartphones that support, difficult signals and customers who are less skilled in using digital technology.

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