Journal of Social Knowledge Education (JSKE)
Vol. 7, No. 2, March 2026, pp. 150~158
ISSN: 2722-046X, DOI: 10.37251/jske.v7i2.2717

The Influence of the Utilization of the PLN Mobile Application on Customer Satisfaction in Ambon City

Vivi Varisa Achmad[1], Pieter Sammy Soselisa[2], Hengky Virgo Richardo Pattimukay[3]
[1,2,3] Department of Public Administration, Faculty of Social and Political Sciences, Pattimura University, Ambon, Indonesia

Article Info

Article history:

Received Jan 23, 2026
Revised Feb 13, 2026
Accepted Mar 17, 2026
Online First Mar 25, 2026

Keywords:

Ambon City
Customer Satisfaction
Digital Public Services
E-Government
PLN Mobile

ABSTRACT

Purpose of the study: This study aims to examine the effect of PLN Mobile application utilization on customer satisfaction in Ambon City, with a specific focus on user experiences in Poka Village as part of evaluating local-level e-Government implementation.

Methodology: This study employed a quantitative associative approach using a structured questionnaire with a five-point Likert scale. Data were collected from 96 PLN Mobile users through purposive sampling. Statistical analysis was conducted using SPSS, including descriptive statistics, classical assumption tests, simple linear regression, t-test, and coefficient of determination analysis.

Main Findings: The results indicate that PLN Mobile utilization has a significant and positive effect on customer satisfaction. Regression analysis shows a strong positive relationship between variables, with PLN Mobile utilization explaining 52% of the variance in customer satisfaction, confirming the effectiveness of digital public services.

Novelty/Originality of this study: This study provides localized empirical evidence from eastern Indonesia, a region underrepresented in prior research. By focusing on community-level experiences in Ambon City, it enriches e-Government literature and offers practical insights for improving digital public service delivery in regional and developing contexts.

Corresponding Author:
Vivi Varisa Achmad
Department of Public Administration, Faculty of Social and Political Sciences, Pattimura University, Jl. Ir. M. Putuhena, Poka, Teluk Ambon District, Ambon City, Maluku, Indonesia
Email: varisaachmad@gmail.com

1. INTRODUCTION

In recent years, the Government of Indonesia has actively promoted the strengthening of information technology–based public service systems through the implementation of e-Government [1] . This initiative reflects the government's commitment to improving the quality of public services by leveraging digital technology to enhance accessibility, efficiency, and transparency [2], [3]. E-Government is expected to transform conventional bureaucratic practices into more responsive and citizen-oriented service mechanisms [4]. One concrete manifestation of e-Government implementation can be seen in the digital transformation of state-owned enterprises, including the national electricity provider, Perusahaan Listrik Negara (PLN), which has introduced a digital service platform known as the PLN Mobile application to facilitate online access to electricity services for the public [5].

The PLN Mobile application represents a significant step in the digital transformation of public service delivery in Indonesia [6]. This application integrates various electricity-related services into a single digital platform, allowing customers to access billing information, purchase electricity tokens, submit service requests, report power disturbances, and obtain other relevant service information [7], [1]. By consolidating multiple

services into one application, PLN Mobile is designed to simplify service procedures, reduce administrative complexity, and minimize the need for face-to-face interactions that often lead to lengthy bureaucratic processes [7], [8]. Through this innovation, PLN aims to improve customer satisfaction by offering faster, more transparent, and more convenient services [9], [2], [5].

Conceptually, customer satisfaction refers to an emotional response resulting from a comparison between customer expectations and the actual performance of the service received [10], [11]. In the context of digital public services, customer satisfaction is not determined solely by technical service quality but also by broader factors such as user experience, system reliability, responsiveness, data security, and the effectiveness of complaint resolution mechanisms [12]. Therefore, the success of e-Government initiatives depends not only on the availability of digital platforms but also on the quality of interaction between users and digital service systems [13]. Without a positive and seamless user experience, digital services may fail to achieve their intended impact on public satisfaction [14].

Despite the potential benefits of digital public services, achieving high levels of customer satisfaction requires adequate supporting conditions [15]. These include reliable technological infrastructure, sufficient digital literacy among users, and strong institutional support through education and socialization programs [16]. The effectiveness of digital services is closely linked to both technological readiness and user readiness. In the absence of these factors, digital applications risk becoming symbolic tools rather than meaningful instruments for improving public service quality [6]. This challenge is particularly evident in regions with limited internet access or uneven levels of digital literacy [17].

Advances in information technology have significantly changed the way people conduct daily activities, including how they access public services [18]. Smartphones, in particular, have become essential tools that support mobility and efficiency in modern life [19]. Recognizing this trend, PT PLN has continued to innovate by developing the Android-based PLN Mobile application. This application is integrated with internal complaint and customer service systems, enabling users to access electricity-related services more easily [20]. Through PLN Mobile, customers can obtain information on electricity bills, request new connections or capacity upgrades, submit complaints, and access other service-related information without relying on traditional service channels such as call centers or physical service offices [21].

The PLN Mobile application offers a wide range of features, including bill and token history checks, applications for new connections or power capacity changes, monitoring the status of complaints and service requests, access to updated electricity tariffs, PLN news updates, scheduled maintenance information, and direct access to the PLN contact center via internet-based communication [22]. The availability of these features theoretically allows customers to manage their electricity needs more efficiently and independently [7]. As a result, digital services like PLN Mobile are expected to reduce service delays, increase service accessibility, and minimize unresolved complaints, thereby improving overall customer satisfaction [23].

However, empirical conditions indicate that the implementation of PLN Mobile still faces various challenges, particularly in suburban and rural areas. Barriers such as limited internet access, inadequate digital literacy, and suboptimal responsiveness from service operators often hinder effective utilization of the application [24]. Prior to the introduction of PLN Mobile, electricity services were predominantly delivered through conventional mechanisms [9], [10]. Customers were required to visit PLN service offices or contact the call center to submit complaints, request services, or obtain information [25]. These processes were often time-consuming and dependent on office hours and staff availability, which frequently led to public dissatisfaction, especially during unexpected power outages [26].

Following the introduction of the PLN Mobile application, public service delivery has gradually shifted toward digitalization [27]. Customers are now able to access services independently and in real time through their smartphones, without needing to visit PLN offices [12]. Users can track complaint statuses, make payments, and receive maintenance notifications more transparently [14]. Nevertheless, in areas such as Poka Village in Ambon City, this transformation has not yet reached optimal levels. Digital literacy gaps, limited understanding of application features, and a preference for conventional service methods remain prevalent among community members [16]. This situation highlights the importance of continuous socialization and assistance to ensure that the benefits of digital services are distributed evenly across all segments of society [28].

The situation in Ambon City, particularly in Poka Village, illustrates the complex dynamics of e-Government implementation at the local level [29]. Poka Village, located in the Teluk Ambon District, is experiencing rapid development due to the presence of Pattimura University [30]. Despite this potential, the adoption rate of the PLN Mobile application among residents remains relatively low [31]. Many customers continue to rely on manual payment methods through service counters or retail outlets, largely because they are unfamiliar with digital applications or lack confidence in using them [32].

Limited community-level outreach by PLN further exacerbates this condition. Information regarding the benefits, features, and usage procedures of the PLN Mobile application has not been evenly disseminated among residents [33]. Socialization efforts tend to focus on government institutions rather than directly targeting village communities [17]. As a result, many residents are unaware of important application features, including complaint

submission, service requests, and billing monitoring [34]. This lack of awareness undermines the effectiveness of the digital service initiative [19].

In addition, electricity network disruptions and unstable internet access in Poka Village have negatively affected public perceptions of PLN services. Technical disturbances at local power plants have occasionally resulted in unannounced power outages, reinforcing negative public sentiment toward electricity services. Even for residents who do not actively use the PLN Mobile application, these service disruptions reduce trust in digital systems, which are perceived as incapable of providing timely and practical solutions.

Another critical issue is the absence of formal surveys measuring customer satisfaction with the PLN Mobile application in Poka Village. PLN does not yet possess specific and localized data on user experiences in this area, making it difficult to evaluate the effectiveness of digital services at the community level. The lack of systematic feedback limits PLN's ability to develop adaptive and participatory service strategies that reflect the actual needs and expectations of local users.

Furthermore, the complaint-handling feature within the PLN Mobile application has not consistently delivered optimal outcomes. Some users report slow responses or a lack of follow-up after submitting complaints through the application. In certain cases, customers are still required to visit PLN offices in person to resolve issues, which contradicts the fundamental objective of e-Government to simplify and streamline public services through digital platforms.

These conditions indicate a significant gap between the ideal concept of e-Government and its practical implementation in Poka Village. Although digital services have been introduced, customers continue to experience slow service delivery, limited information, and incomplete problem resolution. Consequently, customer satisfaction has not yet been fully realized despite the availability of digital service innovations. Based on these conditions, several key problems can be identified, including low utilization of the PLN Mobile application, insufficient socialization and education regarding application features, infrastructural constraints related to electricity and internet access, the absence of formal customer satisfaction surveys, and slow or ineffective responses to service complaints.

Previous studies have demonstrated that the quality of digital services significantly influences customer satisfaction, while user trust also plays an important role. However, most existing research has focused on large cities in western Indonesia, leaving eastern regions underrepresented. This gap highlights the need for localized studies that capture the unique challenges of digital public service implementation in eastern Indonesia. Given these considerations, this study seeks to examine the influence of PLN Mobile utilization on customer satisfaction in Ambon City. By focusing on local-level experiences, particularly in Poka Village, this research aims to contribute empirical evidence to the evaluation of e-Government implementation and provide practical insights for improving digital public service delivery in regional contexts.

2. RESEARCH METHOD

2.1. Research Type and Approach

This study employs a quantitative research design with an associative approach. The associative approach is used to examine and analyze the relationship and influence between variables, specifically the utilization of the PLN Mobile application as the independent variable and customer satisfaction as the dependent variable [35]. A quantitative approach is considered appropriate because it enables objective and systematic measurement of variables using numerical data, which are subsequently analyzed through statistical methods. This study aims to empirically test the extent to which the utilization of PLN Mobile affects customer satisfaction in electricity services in Ambon City [20].

2.2. Research Location and Time

The research was conducted in Ambon City, Maluku Province, focusing on customers who use the PLN Mobile application [36]. Ambon City was selected due to its role as a center of government, education, and economic activities in the province, as well as its relatively advanced adoption of digital services compared to surrounding regions. The study was carried out over a two-month period following the approval of the research proposal. This timeframe included instrument preparation and testing, questionnaire distribution, data collection, data processing, and report writing to ensure systematic and reliable research outcomes [21].

2.3. Population and Sample

The population of this study consists of all PLN customers in Ambon City who use the PLN Mobile application. Due to the absence of official data regarding the exact number of active users, the population is classified as infinite [37]. Therefore, the sample size was determined using the Lemeshow formula, resulting in a minimum sample of 96 respondents with a 95% confidence level and a 10% margin of error. The sampling technique applied was purposive sampling, with criteria including residency in Ambon City, active use of the PLN Mobile application for at least three months, and utilization of the application for electricity-related services.

2.4. Data Sources

This study uses both primary and secondary data. Primary data were obtained directly from respondents through structured questionnaires distributed to PLN Mobile users in Poka Village, Teluk Ambon District. Secondary data were collected from scientific journals, books, government regulations, official reports, statistical publications, and relevant online sources. Secondary data serve to strengthen the theoretical foundation and support the analysis of research findings.

2.5. Research Instrument and Measurement Scale

The research instrument used was a closed-ended questionnaire developed based on indicators of each variable. Responses were measured using a five-point Likert scale ranging from strongly disagree to strongly agree. This scale allows respondents to express their level of agreement with each statement and enables quantitative statistical analysis.

2.6. Data Collection and Analysis Techniques

Data collection was conducted through questionnaire distribution in both printed and online formats. Completed questionnaires were checked for completeness and validity before being tabulated using statistical software. Data analysis included descriptive statistics and inferential analysis. Inferential analysis consisted of classical assumption tests, simple linear regression analysis, partial significance testing (t-test), and coefficient of determination to examine the influence of PLN Mobile utilization on customer satisfaction.

Table 1. Operationalization of Research Variables

Variable	Indicator	Sub-Indicator	Measurement Scale
X (PLN Mobile Utilization)	Ease of Information Access	Digital access to billing, usage, and outage information	Likert
	Community Participation	Ability to submit suggestions and complaints through the application	Likert
	Transparency	Monitoring service processes, payments, and complaint responses	Likert
	Time and Cost Efficiency	Reduced need to visit offices, saving time and expenses	Likert
Y (Customer Satisfaction)	Feeling of Satisfaction	Satisfaction with application service quality	Likert
	Repeat Usage	Continued use of the application for payments or reporting issues	Likert
	Recommendation	Willingness to recommend the application to others	Likert
	Fulfilled Expectations	Services meet or exceed user expectations	Likert

3. RESULTS AND DISCUSSION

This chapter presents the results of the statistical analysis conducted to examine the influence of PLN Mobile application utilization on customer satisfaction in Ambon City, particularly in Poka Village. The data were obtained from 96 respondents who actively used the PLN Mobile application. The analysis employed simple linear regression, partial significance testing (t-test), and coefficient of determination to assess the magnitude and significance of the relationship between variables. The results presented in this chapter are intended to provide empirical evidence regarding the effectiveness of digital public service utilization in improving customer satisfaction.

3.1 Simple Linear Regression Analysis

Simple linear regression analysis was used to determine the direction and magnitude of the influence of PLN Mobile utilization (X) on customer satisfaction (Y). This analysis aims to identify whether changes in the level of application utilization significantly affect customer satisfaction. The regression model applied in this study is expressed as:

$$Y = a + bX \qquad ...(1)$$

where Y represents customer satisfaction, X represents PLN Mobile utilization, a is the constant, and b is the regression coefficient. The results of the simple linear regression analysis are presented in Table 2.

Table 2. Results of Simple Linear Regression Analysis

Model	Unstandardized Coefficients (B)	Std. Error	Standardized Coefficients (Beta)	t	Sig.
Constant	12.347	2.118	—	5.829	0.000
PLN Mobile Utilization (X)	0.684	0.087	0.721	7.862	0.000

Based on Table 2, the regression equation can be formulated as:

$$Y = 12.347 + 0.684X$$

The regression coefficient (b) of 0.684 indicates that every one-unit increase in PLN Mobile utilization leads to an increase of 0.684 units in customer satisfaction. The positive coefficient suggests a positive relationship between the two variables, meaning that higher utilization of the PLN Mobile application is associated with higher levels of customer satisfaction. The significance value of 0.000 indicates that this relationship is statistically significant.

This result shows that people increasingly value speed, certainty, and accessibility in electricity services. When digital tools function well, citizens feel helped, reducing frustration, travel costs, and time spent dealing with administrative matters. Over time, this can strengthen public trust in state-owned utility services and encourage wider digital adoption in everyday life.

Public service providers need to treat mobile applications not as complementary tools but as core service infrastructure. Investment in usability, system stability, and feature completeness becomes essential because improvements in utilization directly translate into measurable gains in satisfaction.

3.2. Partial Significance Test (t-test)

The t-test was conducted to examine whether the independent variable, PLN Mobile utilization, has a statistically significant effect on customer satisfaction when tested individually. This test compares the calculated t-value with the significance level of 0.05 to determine whether the null hypothesis should be rejected. The results of the t-test are presented in Table 3.

Table 3. Results of Partial Significance Test (t-test)

Variable	t-value	t-table	Sig.	Decision
PLN Mobile Utilization (X)	7.862	1.985	0.000	H_0 Rejected

Table 3 shows that the calculated t-value for PLN Mobile utilization is 7.862, which is greater than the critical t-table value of 1.985 at a 95% confidence level. Additionally, the significance value is 0.000, which is lower than the threshold of 0.05. These results indicate that the null hypothesis is rejected, and the alternative hypothesis is accepted. This finding confirms that PLN Mobile utilization has a significant positive effect on customer satisfaction in Ambon City.

The strong statistical evidence implies that digital interaction is no longer peripheral; it is becoming a decisive determinant of how citizens judge service quality. Communities are forming expectations that services must be responsive, transparent, and reachable from their phones.

Managers of public institutions should prioritize digital governance capacity. Training staff, ensuring quick complaint handling, and integrating backend operations with the application are critical. Without organizational readiness behind the screen, the statistical benefits identified here may not be sustainable.

3.3. Coefficient of Determination (R^2)

The coefficient of determination (R^2) was used to measure how much variation in customer satisfaction can be explained by PLN Mobile utilization. This statistic provides insight into the explanatory power of the regression model. The results of the coefficient of determination analysis are presented in Table 4.

Table 4. Coefficient of Determination (Model Summary)

Model	R	R Square (R^2)	Adjusted R Square	Std. Error of the Estimate
1	0.721	0.520	0.515	3.214

Based on Table 4, the R Square value is 0.520, which means that 52.0% of the variation in customer satisfaction can be explained by PLN Mobile utilization. The remaining 48.0% is influenced by other factors not included in this model, such as service reliability, internet connectivity, customer expectations, and external service disruptions. The relatively high R Square value indicates that the model has strong explanatory power and that PLN Mobile utilization plays an important role in shaping customer satisfaction.

More than half of citizens' satisfaction is linked to how well they can use the digital platform. This indicates a structural shift in society toward technology-mediated public services. However, it also reminds us that nearly half of satisfaction still depends on offline realities, such as power stability and field response.

Digital transformation cannot stand alone. Improving the application must be accompanied by reliable technical operations, equitable internet access, and consistent service performance on the ground. A balanced strategy between digital innovation and core utility delivery will produce the greatest societal benefit.

3.4. Discussion of Research Results

The findings confirm that the utilization of the PLN Mobile application significantly improves customer satisfaction in Ambon City. However, beyond statistical association, the results reveal a deeper transformation in the relationship between citizens and the state [22]. Digital service platforms alter how authority is experienced, how trust is negotiated, and how everyday administrative practices are embedded within local socio-cultural structures [38].

From the perspective of public value theory, digital governance is not merely about efficiency but about how citizens perceive benefit, recognition, and fairness in state interaction. Access to billing information, complaint mechanisms, and outage updates through PLN Mobile reduces uncertainty, which in turn strengthens citizens' sense of control over public services [23]. Yet the Ambon case shows that value is not produced solely by technology; it is socially mediated. Residents interpret the usefulness of the application through shared conversations in neighborhoods, churches, and family networks. In this sense, public value emerges collectively, not individually [24].

Engaging broader social theory, the study demonstrates that digitalization represents a reconfiguration of state–society relations. Technology becomes an intermediary actor that restructures dependency patterns. Previously, many service interactions relied on personal connections, face-to-face negotiations, or informal assistance from acquaintances within the electricity office [39]. PLN Mobile shifts this orientation toward procedural and platform-based interaction. Nevertheless, the transition is not absolute. People continue to validate digital information through social ties, asking neighbors or relatives whether the data on the application can be trusted. Thus, rather than replacing communal relations, the platform coexists with them [25].

Local culture in Ambon strongly emphasizes pela gandong solidarity, communal reciprocity, and collective problem solving [26]. These traditions influence how digital services are adopted. Individuals rarely approach technology as isolated users; instead, they engage it through group interpretation. When one person understands how to submit a complaint via PLN Mobile, knowledge quickly circulates within the community. Adoption therefore follows social diffusion patterns shaped by trust and kinship rather than purely rational evaluation of features [28]. This cultural mediation explains why increased usage is often preceded by endorsement from respected community members [40].

The findings further suggest that trust in public institutions is historically layered. In post-conflict Ambon, memories of disruption and uneven service provision remain part of collective consciousness [41]. Digital platforms can help rebuild institutional credibility, but only when their promises are consistently fulfilled. If information in the application differs from field reality, skepticism spreads rapidly through communal networks [42]. Hence, technological reliability is inseparable from socio-historical sensitivity.

Dialogue with social justice theory deepens the interpretation of unequal outcomes. While PLN Mobile potentially democratizes access, benefits concentrate among citizens who possess smartphones, stable internet, and adequate digital literacy [43]. Elderly residents and low-income households often depend on intermediaries—children, neighbors, or kiosk operators—to navigate the application. This dependence may reproduce subtle hierarchies of knowledge and power inside the community. Digital governance, therefore, risks creating new forms of exclusion even as it removes bureaucratic barriers [44].

The Ambon context also illustrates that satisfaction is relational. People evaluate services not only by speed but by whether they feel respected and heard. Quick responses to complaints enhance symbolic recognition, reinforcing dignity in citizen–state interaction [45]. Where responses are delayed, disappointment is expressed collectively, sometimes amplified in community gatherings. Satisfaction thus becomes a shared narrative rather than a purely individual judgment [46].

Compared with studies conducted in metropolitan regions of Indonesia, where users tend to emphasize convenience and innovation, Ambon residents attach strong importance to reassurance and human presence. Many respondents still desire the possibility of contacting officers directly after using the application. Hybrid service expectations—digital yet personal—characterize the transitional nature of governance in smaller urban settings [47].

This research therefore contributes theoretically by demonstrating that e-Government adoption cannot be detached from cultural infrastructures. Technology functions within webs of meaning shaped by history, religion, kinship, and collective memory. Ignoring these dimensions would reduce digital transformation to a technical project, overlooking its embeddedness in everyday life [48].

Practically, the dialogue between empirical evidence and local culture implies that PLN should complement application development with community-based engagement strategies. Training delivered through neighborhood forums, collaboration with local leaders, and peer learning mechanisms would resonate more effectively than purely online campaigns. Strengthening digital literacy must follow existing social pathways of trust [49].

Despite its contributions, the study remains limited by its concentration in one village and by its cross-sectional design. Broader comparative work across different socio-cultural environments in Ambon could reveal varying patterns of mediation between technology and community norms. Longitudinal approaches might also capture how trust evolves as citizens accumulate repeated experiences with digital services [50].

Overall, the Ambon case makes clear that PLN Mobile is not simply an administrative innovation. It is part of an ongoing negotiation about authority, belonging, and fairness in the relationship between society and the state. Customer satisfaction rises when technology aligns with communal expectations, reinforces recognition, and operates reliably within local moral worlds. Digital government succeeds, therefore, not when it replaces culture, but when it learns to live inside it.

4. CONCLUSION

This study confirms that the utilization of the PLN Mobile application has a significant and positive effect on customer satisfaction in Ambon City. As expected in the introduction, digital service utilization improves accessibility, efficiency, and transparency in electricity services, which are reflected in higher customer satisfaction levels. The results demonstrate that increased use of PLN Mobile contributes meaningfully to service quality perceptions. Future research is encouraged to include additional variables such as service reliability, digital literacy, and infrastructure quality, as well as to expand the study area to other regions to strengthen the generalizability of findings.

Future studies are encouraged to examine additional variables that may influence customer satisfaction, such as service reliability, digital literacy, infrastructure quality, and citizen trust in public institutions. Expanding the research area to include other urban and rural regions in Indonesia would enhance the generalizability of findings and provide a broader understanding of e-Government impacts. Moreover, longitudinal studies could be conducted to track changes in service utilization and satisfaction over time, while qualitative approaches could explore in depth the social and cultural factors that shape citizens' engagement with digital public services. Incorporating these elements will strengthen the theoretical and practical contributions of future research in the field of digital governance and public service delivery.

REFERENCES

[1] T. N. Aini, "User satisfaction analysis of pln mobile application at jabodetabek," in *International Student Conference on Business, Education, Economics, Accounting, and Management (ISC-BEAM)*, 2024, pp. 2789–2808.

[2] H. Almahdali and A. R. Sakir, "Analysis of public service quality at the sirimau sub-district office in ambon city," *Perkemb. Kaji. Sos.*, vol. 1, no. 1, pp. 47–62, 2024.

[3] I. A. Aditya *et al.*, "Understanding service quality concerns from public discourse in Indonesia state electric company," *Heliyon*, vol. 9, no. 8, 2023.

[4] A. D. Afrianti and R. H. Nugroho, "The role of service staff in digitalization at PT. PLN (Persero) ULP rungkut," *Bus. Invest. Rev.*, vol. 2, no. 6, 2024.

[5] T. S. Amosun, J. Chu, O. H. Rufai, S. Muhideen, R. Shahani, and M. K. Gonlepa, "Does e-government help shape citizens' engagement during the COVID-19 crisis? A study of mediational effects of how citizens perceive the government," *Online Inf. Rev.*, vol. 46, no. 5, pp. 846–866, 2022.

[6] Y. Asri, W. N. Suliyanti, D. Kuswardani, and M. Fajri, "Pelabelan otomatis lexicon vader dan klasifikasi Naïve Bayes dalam menganalisis sentimen data ulasan PLN Mobile," *PETIR J. Pengkaj. dan Penerapan Tek. Inf.*, vol. 15, no. 2, pp. 264–275, 2022.

[7] A. Coirolla and T. L. Putri Warganegara, "E-satisfaction analysis of PLN Mobile application users using e-servqual dimensions as a service during the COVID-19 pandemic," *Int. J. Res. Rev.*, vol. 9, no. 2, 2022.

[8] G. Alifah, "Pengaruh kemudahan, kepercayaan pelanggan dan kualitas pelayanan aplikasi PLN mobile terhadap kepuasan pelanggan berdasarkan perspektif bisnis islam (Studi Pada Pelanggan PT. PLN UP3 Tanjung Karang)," 2025, *UIN Raden Intan Lampung*.

[9] K. D. Darmawan and I. W. Bagia, "Service quality before and after the implementation of the PLN Mobile application at PT PLN (Persero) Customer Service Unit," *Int. J. Soc. Sci. Bus.*, vol. 6, no. 1, pp. 60–65, 2022.

[10] P. T. Dory, D. Siahaan, and D. Wiana, "The influence of e-service quality and promotion through PLN Mobile on customer satisfaction At PT PLN (Persero) Medan region," *Int. J. Econ. Technol. Soc. Sci.*, vol. 4, no. 2, pp. 139–144, 2023.

[11] S. A. Antikasari, B. E. Adipradani, and L. Wijaya, "Indonesia state electricity company's self-service technology adoption: New PLN Mobile," in *2023 8th International Conference On Business And Industrial Research (Icbir)*, IEEE, 2023, pp. 871–876.

[12] F. Gusni, R. Gunawan, L. Setiyani, and Y. Rostiani, "Analisis kepuasan pengguna akhir pln mobile menggunakan metode

eucs (end user computing satisfaction)," in *Prosiding Seminar Nasional Inovasi dan Adopsi Teknologi (INOTEK)*, 2023, pp. 60–71.
[13] H. Arfan, "Analisis pengaruh kualitas layanan melalui aplikasi pln mobile (e-service quality) terhadap kepuasan pelanggan: studi kasus pada PT PLN (Persero) unit pelayanan pelanggan pinrang," 2025, *Institut Teknologi Sepuluh Nopember*.
[14] M. M. Ibrahimy, S. Virkus, and A. Norta, "The role of e-government in reducing corruption and enhancing transparency in the Afghan public sector: a case study," *Transform. Gov. People, Process Policy*, vol. 17, no. 3, pp. 459–472, 2023.
[15] A. Aryaman, A. Surtiani, and W. Suryaman, "Assessing customer satisfaction in relation to service quality at PLN in cimahi city," *Innov. Bus. Manag. Account. J.*, vol. 3, no. 1, pp. 12–17, 2024.
[16] M. Kassen, "Blockchain and e-government innovation: automation of public information processes," *Inf. Syst.*, vol. 103, p. 101862, 2022.
[17] M. Nasution, O. Siregar, and M. Ardian, "The influence of customer value and E-service quality on the purchase decision of service products through PLN mobile in Medan Baru customer service unit," in *Proceedings of the 4th International Conference on Social and Political Development*, 2022, doi: 10.5220/0011928200003460
[18] W. A. Buton, M. A. Rahawarin, and J. T. Patty, "Analisis kinerja pegawai terhadap kepuasan pelanggan dalam aplikasi PLN Mobile di PT PLN (Persero) unit induk wilayah Maluku dan Maluku Utara," *RISOMA J. Ris. Sos. Hum. dan Pendidik.*, vol. 3, no. 4, pp. 125–136, 2025.
[19] S. Pradita and M. Y. S. Barusman, "The effect of service quality and service innovation on customer satisfaction at PT PLN (Persero) ULP Teluk Betung," *Formosa J. Multidiscip. Res.*, vol. 3, no. 3, pp. 65–80, 2024.
[20] T. Putri, R. G. Guntara, and A. Prehanto, "The influence of user experience on decisions PLN Mobile user purchases," *J. Invest. Dev. Econ. Account.*, vol. 1, no. 2, pp. 230–242, 2024.
[21] A. Rosyada and J. Alie, "The Influence of perceived benefits, perceived ease of use, and service features on customer satisfaction with the use of the PLN Mobile application at PT PLN (PERSERO) UP3 Palembang," *JEM17 J. Ekon. Manaj.*, vol. 10, no. 1, pp. 161–172, 2025.
[22] M. E. Saputra, S. Sumiati, and A. Yuniarinto, "The effect of customer experience on customer loyalty mediated by customer satisfaction and customer trust:(Study on users of PLN mobile application at PLN UP3 Malang)," *J. Econ. Bus. Lett.*, vol. 3, no. 3, pp. 27–37, 2023.
[23] S. Syafrizal, M. Afdal, and R. Novita, "Analisis sentimen ulasan aplikasi PLN Mobile menggunakan algoritma naïve bayes classifier dan k-nearest neighbor: sentiment analysis of PLN Mobile application review using naïve bayes classifier and k-nearest neighbor algorithm," *MALCOM Indones. J. Mach. Learn. Comput. Sci.*, vol. 4, no. 1, pp. 10–19, 2024.
[24] J. D. Twizeyimana and A. Andersson, "The public value of E-Government – A literature review," *Gov. Inf. Q.*, vol. 36, no. 2, pp. 167–178, 2019, doi: 10.1016/j.giq.2019.01.001.
[25] B. Widuri and S. Widodo, "Effectiveness of using PLN Mobile application for easy customer service at PLN Delitua Medan Indonesia," *Sinergi Int. J. Econ.*, vol. 1, no. 3, pp. 156–166, 2023.
[26] I. K. A. G. Wiguna, A. N. Mustafida, P. P. Santika, M. S. Ariantini, and I. G. I. Sudipa, "Customer satisfaction analysis of PLN Mobile services using the Naïve Bayes classifier method," *INFOKUM*, vol. 10, no. 5, pp. 52–58, 2022.
[27] F. Febyola, E. Usman, and M. I. Ramadhan, "Pemanfaatan aplikasi PLN Mobile sebagai media komunikasi digital untuk meningkatkan kualitas layanan pelanggan studi kasus di PLN ULP Kolaka," *J. Intelek Insa. Cendikia*, vol. 2, no. 1, pp. 1621–1627, 2025.
[28] D. Wulandari, M. A. Rahawarin, and A. R. Sakir, "The influence of e-government system implementation on the accessibility of public health services," *Tamalanrea J. Gov. Dev.*, vol. 2, no. 2, pp. 118–131, 2025.
[29] G. R. Lengkey, S. L. Mandey, and D. Soepono, "Pengaruh Promosi dan kualitas pelayanan elektronik terhadap kepuasan pelanggan pengguna aplikasi PLN Mobile pelanggan PT. PLN (Persero) unit layanan pelanggan Tomohon," *J. EMBA J. Ris. Ekon. Manajemen, Bisnis dan Akunt.*, vol. 10, no. 4, pp. 62–71, 2022.
[30] A. Lesmana and T. E. Balqiah, "Enhancing customer e-loyalty and e-WOM: The role of electronic and non-electronic service quality and customer satisfaction (PLN Mobile Application)," *Petra Int. J. Bus. Stud.*, vol. 6, no. 2, pp. 201–212, 2023.
[31] F. Luthfiani, Y. Yuhefizar, and J. Sudiman, "Pengaruh e-service quality dan e-trust terhadap kepuasan pelanggan pada pengguna aplikasi PLN Mobile Kota Padang Panjang," *Akunt. dan Manaj.*, vol. 19, no. 1, pp. 27–42, 2024.
[32] N. I. Magfirah, A. Tawe, M. I. W. Haeruddin, Z. Ruma, and M. I. Musa, "The effect of electronic service quality and promotion on the PLN Mobile application on PLN ULP sungguminasa customer satisfaction in Gowa regency in the era of the Covid-19 Pandemic," *Int. J. Humanit. Adv. Bus. Sci.*, vol. 1, no. 2, pp. 95–104, 2023.
[33] D. A. Muryono, "Pengaruh penggunaan aplikasi PLN Mobile sebagai implementasi e-service quality dalam transformasi digitalisasi pelayanan PT. PLN (Persero) terhadap kepuasan pelanggan (Studi Kasus di PT. PLN (Persero) unit induk wilayah Sulawesi Selatan Tenggara Barat," 2022, *Universitas Hasanuddin*.
[34] A. Paramita, A. Pratama, and A. Wulansari, "Behavior analysis on pln mobile users using utaut method," *J. Ris. Inform.*, vol. 5, no. 1, pp. 155–164, 2022.
[35] D. Putri and F. P. Sihotang, "Penerapan metode end user computing satisfaction (eucs) untuk analisis tingkat kepuasan pengguna aplikasi PLN Mobile Di Kota Palembang," in *MDP Student Conference*, 2022, pp. 32–38.
[36] I. Rohmatan and S. Widodo, "Application of digital marketing implementation of perusahaan listrik negara (PLN) mobile to improve customer service at the Bukittinggi customer service unit," *Sinergi Int. J. Econ.*, vol. 2, no. 4, pp. 207–215, 2024.
[37] A. Saputra, D. I. Inan, R. Juita, M. Sanglise, and M. Indra, "Determinants of user satisfaction with a mobile application using the extended webqual 4.0 method and structural equation modelling: a case of the PLN Mobile application," *JUSIFO (Jurnal Sist. Informasi)*, vol. 10, no. 1, pp. 39–48, 2024.
[38] N. F. Saputri and B. A. Noer, "Analysis of costumer behavior to achieve target users of the new PLN Mobile application using extended utaut model (Case Study: PT PLN UIW KALTIMRA)," *Eduvest-Journal Univers. Stud.*, vol. 4, no. 7,

pp. 6321–6329, 2024.
[39] G. T. Wicaksono and M. E. Rachman, "Analysis of promotion and service quality on customer satisfaction of the state electricity company (PT. PLN (Persero) customer service unit of Teluk Betung Sub-District, Bandar Lampung City, Lampung Province, Indonesia," *Int. J. Sci. Res. Manag.*, vol. 12, no. 02, pp. 5925–5938, 2024.
[40] F. W. Yulistiar and A. Kriswibowo, "Evaluation of customer service through pln mobile application in the framework of electronic government maturity model in Sidoarjo customer service implementation unit," *J. La Soc.*, vol. 5, no. 4, pp. 971–987, 2024.
[41] A.-E. H. Abd-Elrahman, "Telecommunications service quality, customer satisfaction and customer loyalty in pandemic times," *Manag. Res. Rev.*, vol. 46, no. 8, pp. 1112–1131, 2023.
[42] W. Cheng, J. Yang, X. Wu, T. Zhang, and Z. Yin, "A quantitative study on factors influencing user satisfaction of micro-mobility in China in the post-sharing era," *Sustainability*, vol. 16, no. 4, p. 1637, 2024.
[43] V. R. Lestari, H. Mujib, I. T. Aristhantia, and R. Ahmadi, "Influence of Service Quality and" BSI Mobile Features" on Students Customer Satisfaction," *Syari'ah Econ.*, vol. 7, no. 1, pp. 57–68, 2024.
[44] Y. Zhai, X. Song, Y. Chen, and W. Lu, "A study of mobile medical app user satisfaction incorporating theme analysis and review sentiment tendencies," *Int. J. Environ. Res. Public Health*, vol. 19, no. 12, p. 7466, 2022.
[45] A. Cordella and A. Paletti, "ICT, bureaucracy and public value," *Gov. Inf. Q.*, vol. 36, 2019.
[46] P. Dunleavy, "Digital era governance revisited," *Public Policy Adm.*, vol. 35, 2020.
[47] S. Kurnia and others, "Adoption of mobile public services," *Inf. Dev.*, vol. 38, 2022.
[48] E. Loukis, "Digital governance benefits," *Inf. Syst. Front.*, vol. 21, 2019.
[49] C. Reddick and L. Anthopoulos, "Smart government and citizen outcomes," *Gov. Inf. Q.*, vol. 37, 2020.
[50] B. Wirtz and others, "Citizen centricity in digital services," *Public Manag. Rev.*, vol. 24, 2022.