The Influence of Electronic Government on The Quality of Services of Badung Regency Drinking Water Regional Companies

I Putu Dharmanu Yudartha[1], Ni Wayan Supriliyani[2]
[1,2] Public Administration Program, Faculty of Social and Political Sciences
Udayana University, Bali Province: p_dharmanu@unud.ac.id

ABSTRACT

This study aims to analyze the influence of electronic government in improving service quality for PDAM Tirta Mangutama customers. The method in this study uses the quantitative method, which is to analyze the effect of e-government on service quality. Associative quantitative data analysis asks about the relationship between two or more variables. The normality test results show that it is normally distributed through the Kolmogorov-Smirnov Test. Then based on the linearity test shows a value of 0.95, which means greater than the sig value of 0.05. It means that there is a relationship between these two variables. The heteroscedasticity test shows that the sig value is 0.695, greater than 0.05, so heteroscedasticity does not occur. A simple regression analysis with an R square value of 0.355 or an effect of 35.5 percent and an R-value of 0.596 means it is in the medium category. The T-Test and F-test show that H_a is accepted, meaning that e-government influences the quality of public services in the Regional Drinking Water Company of Tirta Mangutama, Badung Regency.

Keywords: E-Government, Public Service, Regional Water Company.

INTRODUCTION

The current dynamic digitalization of public services is a demand that the government must meet. One part of digitalization is the ability of government institutions to implement electronic government. The application of electronic government is part of information and communication technology (ICT), namely the development of communication and information technology. When the government implements ICT, it is expected to be able to create speed of information delivery, wider reach, transparency, and efficiency [1]. According to Gronlun and Horan, the goal of implementing *electronic* government is to improve service quality, democratize and realize government efficiency [2]. Based on the above objectives, the author is interested in analyzing improving service quality by implementing *e-government*.

Government services to the community are interrelated elements between the government and the private sector, so the concept of Good Governance can be called. Bureaucratic pathology plays a role in improving good governance. In simple terms, governance is symbolized as a process in public services to overcome problems that exist in the public. On the other hand, public service requires state administrators' efforts to fulfill the wants and needs of the community, which can ultimately improve people's welfare[3]. One of the steps for the government to implement the *e-government* system is to serve the community so that people are satisfied with their main needs prioritized in government services[4]. In this day and age, in the digitalization period, a system is needed to develop information and communication technology that is very helpful in carrying out government and private sector tasks. The implementation of the current task to achieve *good governance* in monitoring performance – all performance is achieved through the process of the Influence of E-Government.

The urgency of utilizing technology in every government activity has long been regulated in the Presidential Regulation of the Republic of Indonesia No.3 of 2003 concerning the National Strategy Policy for E-Government Development [5]. These regulations pose a challenge in providing information related to public services to the public through the use of information technology [6]. Of course, its application in each region will vary.

These findings become the initial picture and basis for the author in analyzing the quality of public services in PDAM Tirtha Mangutama, Badung Regency. According to Dwiyanto [7], service orientation explains service users' interests to be served effectively and deceives employees in the bureaucracy as service providers. Service quality is an important aspect of the community and agencies. The impact on the community is to provide satisfaction with the services provided, while for the agency is to encourage the community to appreciate employees in the agency environment. The community is more aware of complying with the rules and gives pride because employees have been able to provide quality services [8]. So, in this paper, the author will discuss the Effect of Electronic Government on the quality of service of PDAM Tirta Mangutama Badung Regency, where the Effect of E-Government as an independent variable (X) and as a dependent variable (Y) is Service Quality.

LITERATURE REVIEW

One of the research objects that the author analyzes is related to the influence of government electronics analyzing the Regional Drinking Water Company Tirta Mangutama, Badung Regency. This is based on the importance of optimizing the performance of regional-owned enterprises, especially amid the COVID-19 pandemic. The hope is to contribute to the revenue of the Badung Regency district. To achieve this, improving the quality of service in PDAM Tirta Mangutama, Badung Regency [9]. Based on previous findings and research, there are findings related to the attitude and discipline of employees in PDAM Tirtha Mangutama, Badung Regency. In addition, the influence of PDAM is very important in providing clean water because it is a primary or basic need of the community at large [10]. Other studies also describe that the government's efforts or performance in fulfilling clean water through PDAMs still need to be by the needs and expectations of the community. People are often dissatisfied with PDAM's performance, especially regarding service quality [11].

METHODS

The quantitative method is the method used, namely analyzing and testing public perception regarding the influence of the role of e-government on the quality of services through predetermined instruments. Type of Research Quantitative associative is the type of research that the author uses. According to Sugiyono [10]. Associative quantitative attempts to test two or more variables. The relationship of two or more variables is casual, that is, a causal relationship. This research's location or object is in PDAM Tirta Mangutama, Badung Regency, and the community or PDAM service users in Badung Regency. The choice of location is due to problems and challenges in improving the quality of public services in PDAM Badung Regency. The subject of his research was a service user at PDAM Tirta Mangutama. Users of those services were part of the population

in the study. The total population of PDAM customers in 2021 is 74,649; then, using the Slovin formula with a margin of error of 10 percent, the results obtained are 99.86 (100) respondents.

The research procedure was for researchers to survey responses by purposive sampling, namely respondents who were users of PDAM Tirtha Mangutama Badung Regency services. Then the data was collected for tabulation and analysis using SPSS 24 software. Quantitative and qualitative data are the data types used in this study. Quantitative data is primary data in numbers with a Likert scale from distributing questionnaires to service users or research samples. The quantitative data will be analyzed using SPSS software to obtain information and results related to the relationship between the two variables in this study. Then qualitative data is secondary data in this study, in writing or words based on observations and interviews. Data analysis techniques in this study are Validity and Reliability Test, Classical Assumption Test, Simple Regression Analysis, Determination Analysis, t-Test (T-test), and F-test Analysis.

RESULTS AND DISCUSSION

Through quantitative data analysis through the distribution of questionnaires, researchers conduct initial tests through validity and reality tests. The validity test of each statement item submitted by the researcher related to electronic influence variables and service quality variables showed valid results. It is based on each question obtaining a value greater than the R table of 0.1954. The reliability test shows that Cronbach's alpha is 0.891, higher than 0.6. This means that the overall question item is said to be realistic. After testing the question items using validity and reliability tests, the researchers proceed with the classical assumption test to assess whether the collected data is normally distributed. The value obtained is 0.121, greater than 0.05, meaning that the normality test is fulfilled in the regression model through the Kolmogorov-Smirnov test.

In the next stage, in assessing the relationship between the variables of the influence of e-government on service quality, the researcher uses a linearity test. Based on the tests carried out, the sig value is obtained. Is 0.095 (see Figure 1)

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
KUALITAS PELAYANAN * PERANAN E-GOV	Between Groups	(Combined)	1143.219	16	71.451	5.166	.000
		Linearity	813.599	1	813.599	58.822	.000
		Deviation from Linearity	329.620	15	21.975	1.589	.095
	Within Groups		1148.021	83	13.832		
	Total		2291.240	99			

Figure 1. Linearity Test Results (Source: SPSS Analysis)

Based on these data, there is a significant linear relationship between variables between the influence of e-government on service quality. Then the next test, the researcher uses the heterogeneity test, based on the test data obtained shows that the sig value is 0.380 (see Figure 2)

Coefficients^a

Model		Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	5.701	2.875		1.983	.050
	PERANAN E-GOV	-.050	.056	-.089	-.882	.380

a. Dependent Variable: Abs_RES

Figure 2. Heteroscedasticity Test Results (Source: SPSS data analysis)

If the Sig value is 0.380, then greater than 0.05, the symptoms of heteroscedasticity do not occur. The next stage of the test is a simple regression analysis. The results of this test obtained the value of adjust R Square (coefficient of determination), which is 0.355 (see Figure 3), meaning the effect of the application of e-government (X) on service quality (Y) is 35.5 percent.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.596^a	.355	.349	3.88304

a. Predictors: (Constant), PERANAN E-GOV

Figure 3. Regression Test Results (Source: SPSS data analysis)

Then when viewed from the R-value, which is 0.596, it can be categorized as the level of relationship between these variables in the medium category based. The relationship between the influence variable of e-government as an independent variable and service quality as a dependent variable is in the medium category. The regression equation in the study is Y = 25.812 + 0.737 X. T-Test Test, where T table is 2.63157, and T Count is 7.346, meaning T Count > T Table. There is an influence of e-government on the quality of public services, or H0 is rejected, and H1 is accepted. Test F-test, where F table uses df (90) and k (10), then the value of F table is 1.639, then F count is 53.959. This Ho is rejected because F counts (53.959 > f table (1.639). So, the influence of e-government significantly influences improving the quality of service at regional drinking water companies in Badung Regency.

As a regionally owned enterprise, orientation in providing services is the main aspect. Especially now that the need for clean water, especially in Badung Regency, is increasing. This is due to the high occupancy of hotels and other business fields that need clean water. In addition to producing quality products, it must be followed by the quality of service provided to customers. Through electronic government, theoretically conceptualized from the use of internet-based or digital facilities and infrastructure, it becomes a choice that needs improvement. PDAM Tirta Mangutama still uses its website and call center to provide customer services. Therefore, it is necessary to increase digital-based services, such as using applications that are more accessible to users later.

CONCLUSION

The author's conclusion is that H1 is accepted based on the t-test and f-test, so there is a variable influence of the influence of e-government on the quality of service in PDAM Badung

Regency. The role of e-government has a positive and significant influence on the quality of service in PDAM Badung Regency, with a correlation in the medium category. The effect of e-government (x) implementation on service quality (y) was 35.5%, and the variables outside the study influenced the remaining 64.5 percent. The regression equation is y = 25.812 + 0.737 x, that the better the implementation of e-government, it will result in an increase in service quality in PDAM Badung Regency. The relevant suggestions as a form of recommendation in optimizing service quality through e-government are as follows: Requires electronic or digital-based policies and programs to focus on improving service quality; Modernization and innovation of information technology-based services are the top priorities in the performance orientation of PDAM Tirta Mangutama, Badung Regency.

REFERENCES

[1]   H. P. Sinurat, "Peranan Aparatur Pusat Penelitian Dan Pengembangan Daya Air (PUSLITBANG SDA) Dalam Meningkatkan Kualitas Pelayanan Publik Melalui Sistem Informasi Geografis Bidang Sumber Daya Air (SIGSDA)," *J. Agresi*, vol. 6, no. 2, pp. 139–148, 2018.

[2]   S. Sugiono, "Peran E-Government dalam Membangun Society 5.0: Tinjauan Konseptual terhadap Aspek Keberlanjutan Ekonomi, Sosial, dan Lingkungan," *Matra Pembaruan*, vol. 5, no. 2, pp. 115–125, 2021, doi: 10.21787/mp.5.2.2021.115-125.

[3]   F. Miftahuddin, D. Herdiansyah, I. Sholohin, F. K. Hidayat, and R. Lahmini, "Kualitas Pelayanan Publik Dalam Pengurusan Izin Mendirikan Bangunan Di Kota Cimahi," *J. Agreg. Aksi Reformasi Gov. dalam Demokr.*, vol. 7, 2019.

[4]   U. Bagou, "KUALITAS PELAYANAN KARTU PENCARI KERJA DI DINAS TENAGA KERJA, KOPERASI DAN USAHA KECIL MENENGAH KOTA GORONTALO Usan," *PUBLIK J. Manaj. Sumber Daya Manusia, Adminsitrasi dan Pelayanan Publik*, vol. VII, p. 124, 2018.

[5]   Y. Amrozi, N. Aini, and Z. Munadhiroh, "Peta Perkembangan E-Government Di Indonesia," *JSI J. Sist. Inf.*, vol. 14, no. 1, pp. 2465–2472, 2022, [Online]. Available: http://ejournal.unsri.ac.id/index.php/jsi/index

[6]   A. A. Kusuma, S. Wasistiono, and A. Pitono, "Penerapan E-Government Dalam Meningkatkan Kualitas Pelayanan Publik Di Dinas Penanaman Modal Dan Pelayanan Terpadu Satu Pintu Kota Bandung Provinsi Jawa Barat," *VISIONER J. Pemerintah. Drh. Di Indonesia.*, vol. 13, no. 2, pp. 145–158, 2021, doi: 10.54783/jv.v13i2.422.

[7]   R. V. Lumi, novie revlie Pioh, and W. Waworundeng, "Kualitas Pelayanan Publik Aparatur Sipil Negara dalam Penerapan E- Government di Dinas Kependudukan dan Pencatatan Sipil Kota Manado," *Eksekutif*, vol. 2, no. 2, pp. 1–10, 2019.

[8]   N. S. Tueno, "Pengaruh Kompetensi Tenaga Medis/Para Medis Terhadap Kualitas Pelayanan Di Rumah Sakit Umum Daerah (RSUD) Pohuwato," *Publik J. Manaj. Sumber Daya Manusia, Adm. dan Pelayanan Publik*, vol. 1, no. 1, pp. 43–54, 2014, [Online]. Available: https://stia-binataruna.e-journal.id/PUBLIK/article/view/107

[9]   P. I. A. Dewi, " Pengaruh Kepemimpinan dan Pemberdayaan Pegawai terhadap Kepuasan Kerja dan Komitmen Pegawai Pada PDAM Tirta Mangutama Kabupaten Badung," *JAGADHITAJurnal Ekon. Bisnis*, vol. 4, no. 1, pp. 1–10, 2017, doi: 10.22225/JJ.4.1.225.1-10.

[10]   E. M. Hijeriah, L. Suryani, and L. Kurniawati, "Analisis Dimensi Kualitas Pelayanan Jasa Pada PDAM Tirta Dumai Bersemai Kota Dumai," *J. Pendidik. dan Konseling*, vol. 4, pp. 6430–6443,   2022,   [Online].   Available: https://journal.universitaspahlawan.ac.id/index.php/jpdk/article/view/6500

[11]   A. Pariono, A. Y. Katili, and M. Imran, "Analisis Implementasi Pelayanan Pdam Unit Boliyohuto Kabupaten Gorontalo," *Publik J. Manaj. Sumber Daya Manusia, Adm. dan Pelayanan Publik*, vol. 7, no. 2, pp. 132–145, 2021, doi: 10.37606/publik.v7i2.136.