

EVALUATION OF E-GOVERNMENT SERVICES IN JAYAWIJAYA REGENCY POST EXPANSION OF THE PAPUA PEGUNUNGAN PROVINCE USING THE UTAUT MODEL

Yohanes Tabuni

Computer Engineering, STIMIK Agama Wamena College, Papua Pegunungan, Indonesia
yohanestabuni@stimik-agamua.ac.id

ABSTRACT

In the era of economic, political, and technological globalization, the importance of Good Government and Clean Government encourages the Indonesian Government to implement information and communication technology. The aim is to increase effectiveness, efficiency, transparency, and accountability in public services and government business processes. The e-government concept includes the relationship between government and government (G2G), government and business (G2B), government and ASN (G2E), and government and society (G2C). Websites are a crucial component in e-government, providing information accessibility and increasing openness. This research aims to evaluate the quality of the Jayawijaya Regency Government Website. In this research, a purposive sampling technique was used. This research used 100 samples or respondents. Data analysis in this research was carried out using descriptive analysis methods of averages and percentages. The approach applied is the UTAUT method (Unified Theory of Acceptance and Use of Technology). UTAUT is formed by three main factors, condition of work facilities, impact of information technology systems, and service user request. The variables CWF, IITS, and SUR simultaneously influence the variables EC, and (2) the dependent variable UB is simultaneously influenced by the EC variable. The CWF variable partially and significantly influences the EC variable. (2) the IITS variable partially and significantly influences the EC variable (3) the SUR variable partially and significantly influences the EC variable. The independent variable influences EC is 47.1% while the independent variable EC influences UB by 55.3%.

Keywords: *e-government, service, utaut model, papua pegunungan*

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INTRODUCTION

Rapid developments in economic, political, and technological globalization encourage the need for government administration that focuses on Good Government and Clean Government. To achieve this goal, the Indonesian Government, from the central to regional levels, is required to implement information and communication technology to increase effectiveness, efficiency, transparency, and accountability in public services and government business processes (Zahra Nabbilla et al., 2023). This includes the relationship between government and government (G2G), government and business (G2B), government and ASN (G2E), and government and society (G2C). The application of information and communication technology in the context of government organizations is known as "e-government." One important component of e-government is the existence of a Website, which is a mandatory service for the government to increase the openness and accessibility of information (Sitokdana, 2015).

Website Services are a crucial element in the e-Government framework, such as building the foundation of a house before construction. Development of e-government applications begins with website development (Wahyuni et al., 2023). In general, the Website includes government profiles, organizational structure, vision and mission, work programs, development strategies, news information/announcements, links to organizational unit

websites, e-government services, budget accountability reports, planning documents, and other elements. The importance of the Website is also reflected in the quality and availability of its content which is expected to be of a high standard and accessible in real-time. However, not all government organizations can easily achieve this goal because they are faced with various challenges (Rodrigues et al., 2016).

The average government website is at level one (preparation), and only a small portion has reached level two (maturation). Meanwhile, levels three (stabilization) and four (utilization) have not yet been fully achieved, especially e-Government at the regional government level. This condition is influenced by various complex problems in Indonesia, including inequality of facilities and infrastructure, low quality of human resources, high levels of poverty, unstable economic conditions, deteriorating national political situation, inadequate performance of government officials, and various other factors (Alawadhi & Morris, 2008).

In Sitokdana's research (in Tabuni & Priyantoro, 2019) the Regional Government Website on Java Island showed better quality compared to other regions, including Jayawijaya Regency, Papua Pegunungan Province which was used as a case study. However, the Jayawijaya Regency Government Website does not yet meet the standards required by regulations, even though as a new district and as an expansion area, Jayawijaya Regency is expected to become a mecca for e-government development. Despite a rapid increase in the number of local government Websites, their quality is still not optimal. Not all local government websites provide public service facilities that comply with standards. More local governments are creating websites solely to meet the demands of public information disclosure, without any changes in electronic-based government work management (M. A. Alshehri, 2013).

For this reason, this research aims to evaluate the quality of the Jayawijaya Regency Government Website. The Jayawijaya Regional Government has long had a website with the domain <http://www.jayawijayakab.go.id>. The website includes various menus such as the homepage, subdomains, regional profiles, government, information, documents, and news. In the search process, various deficiencies and weaknesses were identified that required evaluation, and recommendations needed to be prepared for policymakers. During a limited interview with the technical party responsible for managing the Website, it was revealed that so far no evaluation had been carried out on the quality of the Website (Li, 2021).

Even though the progress of e-government in Indonesia is supported by Presidential Instruction No. 3 of 2003 which details the national policy strategy for e-government growth. This Presidential Instruction emphasizes measurement based on the duties, functions, and authority of each government entity, guided by National Policy and e-government Development Strategy. To create clean, effective, transparent, and accountable government governance, as well as provide quality and trustworthy public services, the government issued Presidential Regulation (Perpres) Number 95 of 2018 concerning Electronic-Based Government Systems (SPBE). To implement the provisions in Presidential Decree Number 95 of 2018 concerning SPBE, the Minister of State Apparatus Empowerment and Bureaucratic Reform of the Republic of Indonesia issued Ministerial Regulation of PAN-RB Number 5 of 2020 concerning guidelines for risk management for electronic-based government systems. This regulation aims to organize a government that utilizes information

and communication technology to provide services to SPBE users. Therefore, evaluations and recommendations need to be carried out to guide stakeholders so they can take tactical and strategic reform steps (Imania & Haryani, 2021).

This research aims to evaluate e-government services in Jayawijaya Regency to measure the level of success in implementing Information Technology, one of which is using the UTAUT (Unified Theory of Acceptance and Use of Technology) method (Oye et al., 2014). This method was used because it was proven to be able to explain up to 70 percent of user variance. This evaluation process was carried out by looking for factors that could influence the level of access to e-government services in Jayawijaya Regency. Apart from that, the evaluation process can be used to find out whether the information system used is what is expected by system users so that the development and improvements made can be directed and in line with the expectations of users. Several previous journals that used the UTAUT method succeeded in analyzing models of acceptance and use of website information systems in the country and all variables used simultaneously affected user behavior. Other research succeeded in evaluating the implementation of student information systems and produced this variable which was able to influence system acceptance by 92.7 %.

METHOD

Sampling or sampling technique is a method for taking samples that represent the population as a whole. In this research, a purposive sampling technique was used. This research used 100 samples or respondents. The inclusion criteria in this research are individuals who are actively involved or interact with the system in Jayawijaya Regency (Sugiyono, 2018).

The data collected in this research is primary and secondary data. Primary data is data obtained from research objects. This data collection uses questionnaires/questionnaires. In making this questionnaire, researchers used the Unified Theory of Acceptance And Use Of Technology (UTAUT) method (Aghnas Saharja et al., 2019). Secondary data is data obtained from the literature in the form of theoretical data related to the theme to be researched, namely research journals, books, theses, and others. Observation is a method of collecting data using direct observation or review of the research object, namely collecting, studying, and observing the e-government information system at <http://www.jayawijayakab.go.id>. Questionnaires were distributed in two ways, namely using an online survey format (Google form) and distributed directly to government agency employees.

Data analysis in this research was carried out using descriptive analysis methods of averages and percentages. Measurements are carried out using a Likert scale to assess attitudes, opinions, and perceptions of individuals or groups toward an event. The approach applied is the UTAUT (Unified Theory of Acceptance and Use of Technology) method (Setiawan et al., 2021). UTAUT's information technology acceptance theory is based on various behavioral theories of technology use and acceptance. This model explains that UTAUT is formed by three main factors, condition of work facilities, impact of information technology systems, and service user requests, which will influence employee commitment and can directly influence usage intentions and behavior. This theoretical model aims to

explain user interest in using the Information System and user behavior that may occur subsequently. An overview of the UTAUT model in this research can be found below.

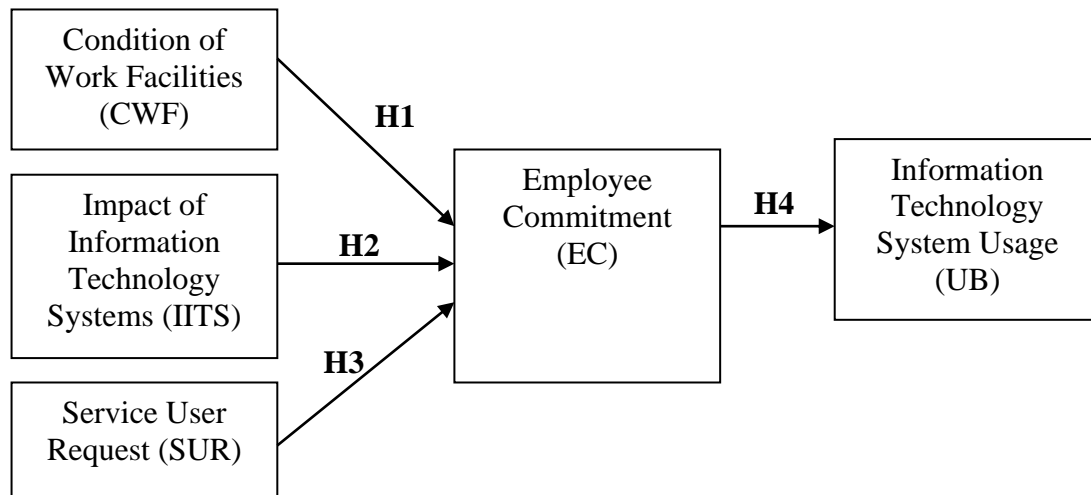


Figure 1. Conceptual Framework of the UTAUT Model

Referring to the research conceptual framework in Figure 1. The hypothesis used is as follows:

1. Simultaneous influence, the hypothesis used is as follows:
HEC: The independent variables condition of work facilities, impact of information technology systems, and service user requests simultaneously influence the dependent variable Employee Commitment.
HUB: The independent variable Employee Commitment simultaneously influences the dependent variable Information Technology System Usage.
2. Partial influence. The hypothesis used is as follows:
H1: The condition of work facilities variable has a significant effect on Employee Commitment.
H2: The variable impact of information technology systems has a significant effect on Employee Commitment.
H3: The impact of information technology systems variable has a significant effect on Employee Commitment.

RESULTS AND DISCUSSION

Validity and Reliability Test

Test the validity and reliability of the measurement data by expectations. This data is suitable for use as a measuring tool for analysis in research that aims to measure the acceptance model of e-government services.

Classic assumption test

The results of classical assumption tests, including (1) normality, (2) heteroscedasticity, (3) autocorrelation, and (4) multicollinearity of the data, by the requirements, indicate that the data is suitable for use as a predictor of the dependent variable BU by the predictor variable CWF, IITS, SUR, EC.

Multiple Regression Test Results

F Test Results

The results of the F test in ANOVA provide conclusions as can be seen in Figure 2. The table explains that (1) the variables CWF, IITS, and SUR simultaneously influence the EC variable, and (2) the dependent variable UB is simultaneously influenced by the EC variable. The following results of the f test in the ANOVA test provide conclusions as presented in Figure 1.

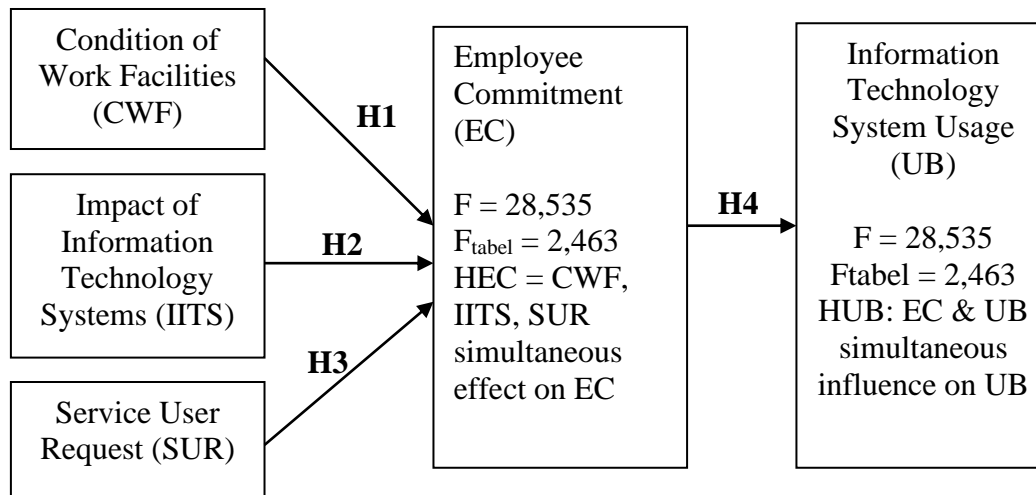


Figure 2. F Test Results

t Test Results

The results of the t-test on the regression coefficient provide conclusions as can be seen in Figure 3.

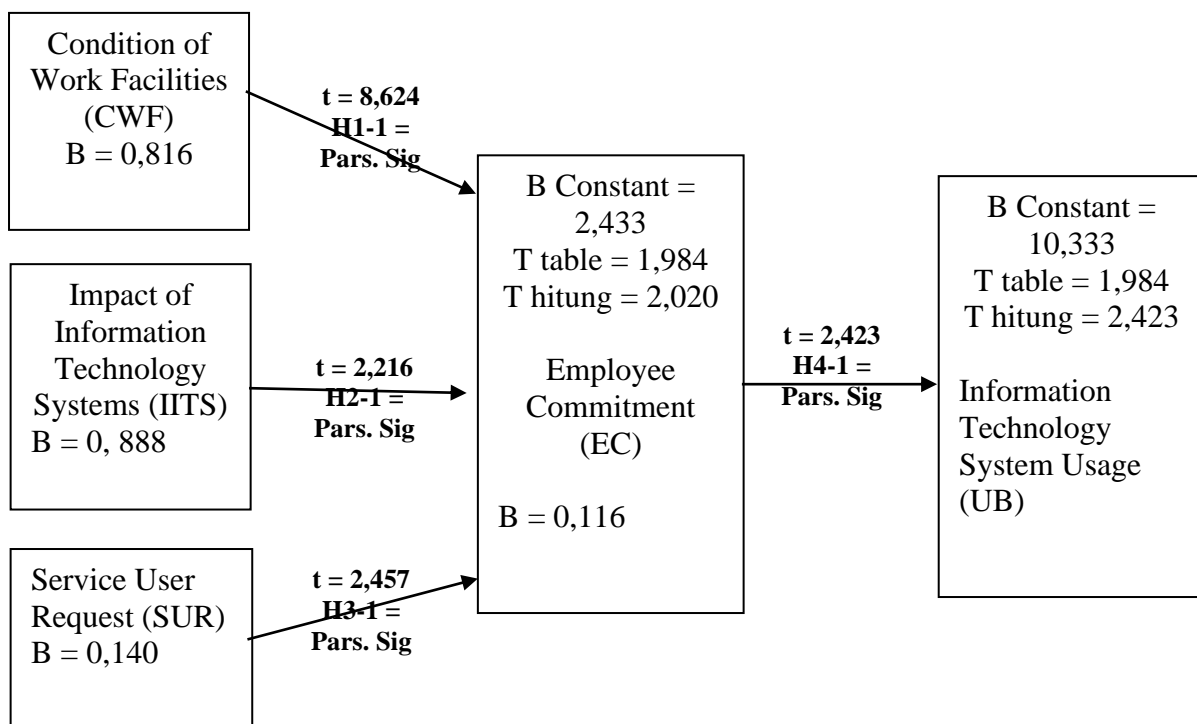


Figure 3. T-test results

Based on Figure 3. Explains that (1) the CWF variable partially and significantly influences the EC variable. (2) the IITS variable partially and significantly influences the EC variable (3) the SUR variable partially and significantly influences the EC variable. Apart from that, the regression coefficients resulting from this research are:

a. CWF, IITS, SUR against EC are as follows:

$$Y = 2.433 + 0.816 X1 + 0.888 X2 + 0.140 X3$$

Where:

1. Y is the EC variable
2. X1 is the CWF variable
3. X2 is the IITS variable
4. X3 is the SUR variable

b. EC towards UB is as follows:

$$Y = 0.116 + 0.116 X1$$

Where:

1. Y is the UB variable
2. X1 is the EC Variable

Based on the results of the regression coefficient, it can be concluded that the IITS variable is followed by the CWF variable, while the EC constant value is 2.433, and the EC variable has an influence of 0.116 on UB.

The final measurement involves validating the model by evaluating the R2 value. Measurements were carried out twice in this study to assess the extent to which factors influence the acceptance of e-government services. In this study, researchers tested the UTAUT model. The following are the results of measuring the R2 value.

Table 1. R2 Test Results

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
EC	.687 ^a	.471	.455	1.425
BU	.142 ^a	.553	.480	1.566

Based on Table 1, the results of the R2 analysis in the UTAUT model have an EC variable value of 0.471 and a UB variable of 0.553. So it was found that the independent variable influenced EC by 47.1%, while the independent variable EC influenced UB by 55.3%.

Discussion

Based on Figure 1. This shows the influence of factors that can significantly and positively influence employee commitment to using e-government services in Jayawijaya Regency, namely the condition of work facilities, the impact of information technology systems, and service user requests. Good working facility conditions can have a positive impact on employee engagement levels. Comfortable and adequate facilities can increase employee satisfaction and motivation, which in turn can increase engagement with work and the organization. Effective and efficient information technology systems can make a positive

contribution to employee engagement (Oktavia, 2020; Sudarsono & Lestari, 2018). Adequate information technology can increase productivity, simplify work tasks, and create a more dynamic work environment, all of which can increase the sense of engagement. Positive responses to service users' requests can play an important role in increasing employee engagement. When employees feel that their contributions are recognized and appreciated by service users, this can create an emotional bond and commitment to their duties and responsibilities. These results are in line with research conducted by (Ismarmiaty, 2016) which also shows that the impact of information technology and office facilities influences employee commitment to using e-government services (M. Alshehri et al., 2012).

The research results show that employee commitment influences Information Technology System Usage positively and significantly. This means that the level of employee engagement is proven to have a real impact in increasing the use of information technology systems within the organization. The higher the level of employee engagement with the job or organization, the more likely they will actively and productively use the available information technology systems. This depiction of positive relationships shows employee engagement and use of information technology systems, providing further understanding of how employees' psychological and emotional aspects can contribute to the acceptance and use of information technology in the work environment. These results are in line with research conducted by Setiawan et al. (2021) that employees who feel connected to their work or organization are more likely to adopt and make maximum use of information technology (Im et al., 2011).

CONCLUSION

Based on this research, it can be concluded that the evaluation of e-government services in Jayawijaya Regency using the UTAUT method shows a significant impact on the level of acceptance by users. Overall, the variables analyzed have a joint influence on the acceptance of e-government services. Factors that influence employee commitment are the condition of work facilities, the impact of information technology systems, and service user requests. The condition of work facilities, the impact of information technology systems, and demand from service users are key factors that influence the acceptance of e-government applications in Jayawijaya Regency. In other words, the successful implementation of information technology in e-government services is influenced by these factors.

These results provide a clear picture of the aspects that need to be considered and improved to increase the acceptance of e-government services in the region. The practical implications could involve efforts to improve working facility conditions, optimize information technology systems, and be responsive to service user requests to increase the effectiveness and acceptance of e-government services in Jayawijaya Regency.

REFERENCES

- Aghnas Saharja, V., Hadi Wijoyo, S., & Herlambang, A. D. (2019). *Evaluasi Penerimaan Pengguna Sistem Informasi Kesehatan Pada Poliklinik Universitas Brawijaya Menggunakan Model Unified Theory of Acceptance and Use of Technology (UTAUT)* (Vol. 3, Issue 9). <http://j-ptiik.ub.ac.id>

- Alawadhi, S., & Morris, A. (2008). The use of the UTAUT model in the adoption of e-government services in Kuwait. *Proceedings of the Annual Hawaii International Conference on System Sciences*. <https://doi.org/10.1109/HICSS.2008.452>
- Alshehri, M. A. (2013). Using the UTAUT Model to Determine Factors Affecting Acceptance and Use of E-government Services in the Kingdom of Saudi Arabia. *Unpublished Doctorial Thesis from Griffith University, Queensland, Australia*.
- Alshehri, M., Drew, S., & AlGhamdi, R. (2012). Analysis of citizens' acceptance for e-government services: Applying the utaut model. *Proceedings of the IADIS International Conference, ISPCM 2012, Proceedings of the IADIS International Conference TPMC 2012, IADIS International Conference IAR 2012*.
- Im, I., Hong, S., & Kang, M. S. (2011). An international comparison of technology adoption: Testing the UTAUT model. *Information and Management*, 48(1). <https://doi.org/10.1016/j.im.2010.09.001>
- Imania, A. N., & Haryani, T. N. (2021). E – Government di Kota Surakarta Dilihat dari Peraturan Presiden No. 95 Tahun 2018 tentang Sistem Pemerintahan Berbasis Elektronik. *Wacana Publik*, 1(1), 176. <https://doi.org/10.20961/wp.v1i1.53143>
- Ismarmiaty. (2016). Analisis Model Penerimaan Dan Penggunaan Sistem Informasi Website Padamu Negeri Oleh Pengguna Menggunakan Model. *JURNAL MATRIK*, 16(1).
- Li, W. (2021). The role of trust and risk in Citizens' E-Government services adoption: A perspective of the extended UTAUT model. *Sustainability (Switzerland)*, 13(14). <https://doi.org/10.3390/su13147671>
- Oktavia, L. (2020). Penilaian Penerimaan E-Government Di Indonesia. *Jurnal CoreIT: Jurnal Hasil Penelitian Ilmu Komputer Dan Teknologi Informasi*, 6(1). <https://doi.org/10.24014/coreit.v6i1.9143>
- Oye, N. D., A.Iahad, N., & Ab.Rahim, N. (2014). The history of the UTAUT model and its impact on ICT acceptance and usage by academicians. *Education and Information Technologies*, 19(1), 251–270. <https://doi.org/10.1007/s10639-012-9189-9>
- Rodrigues, G., Sarabdeen, J., & Balasubramanian, S. (2016). Factors that Influence Consumer Adoption of E-government Services in the UAE: A UTAUT Model Perspective. *Journal of Internet Commerce*, 15(1). <https://doi.org/10.1080/15332861.2015.1121460>
- Setiawan, E., Winarno, W. W., & Fudholi, D. H. (2021). Analisis Faktor Penerimaan Layanan e-Government dengan Menggunakan Model UTAUT2 dan GAM di Kabupaten Gunungkidul. *Jurnal Media Informatika Budidarma*, 5(1), 34. <https://doi.org/10.30865/mib.v5i1.2565>
- Sitokdana, M. N. N. (2015). Evaluasi Implementasi eGovernment Pada Situs Web Pemerintah Kota Surabaya, Medan, Banjarmasin, Makassar dan Jayapura. *Jurnal Buana Informatika*, 6(4). <https://doi.org/10.24002/jbi.v6i4.461>
- Sudarsono, B. G., & Lestari, S. P. (2018). KAJIAN LITERATUR MODEL KONSEPTUAL KEBERHASILAN E-GOVERNMENT. *KOMIK (Konferensi Nasional Teknologi Informasi Dan Komputer)*, 2(1). <https://doi.org/10.30865/komik.v2i1.981>
- Sugiyono. (2018). *Metode Penelitian Kuantitatif*. CV. Alfabeta.
- Wahyuni, S., Febriyanti, D., & Kencana, N. (2023). *Evaluasi Penggunaan (Usability) Website E-Pemerintahan Di Kantor Kelurahan Demang Lebar Daun Kota Palembang* (Vol. 9).
- Zahra Nabbilla, H., Eko Setiawan, A., Ardhy, F., & Rizki, F. (2023). Aisyah Journal of Informatics and Electrical Engineering Evaluasi Dan Perancangan User Interface (UI) Untuk Meningkatkan User Experience (UX) Menggunakan Metode Human Centered Design (HCD) Pada Aplikasi Sitabsis Di SMPN 03 Gading Rejo. *Aisyah Journal of Informatics and Electrical Engineering*, 5(2). <http://jti.aisyahuniversity.ac.id/index.php/AJIEE>