

The Influence of Human Resource Competence and the use of E-Government Systems on Complaint Responsibility Towards Public Service Satisfaction (Case Study in the Field of Control and Order of the Semarang City Transportation Agency)

Dody Febrianto ¹⁾ & Hendar ²⁾

¹⁾ Faculty of Economy, Universitas Islam Sultan Agung, Semarang, Indonesia, E-mail: dodyfebrianto.std@unissula.ac.id

²⁾ Faculty of Economy, Universitas Islam Sultan Agung, Semarang, Indonesia, E-mail: hendar@unissula.ac.id

Abstract. *This study aims to analyze the effect of Human Resource Competence and the Use of E-Government Systems on Complaint Responsiveness and its impact on Public Service Satisfaction at the Control and Enforcement Division of the Semarang City Transportation Service. The background of this research is based on the phenomenon of delayed responses to public complaints submitted through electronic-based complaint systems, which potentially affects the level of public service satisfaction. This research employed a quantitative approach using explanatory research design. The population consisted of residents of Semarang City who had submitted complaints through the public complaint system. A total of 100 respondents were selected using purposive sampling technique. Data were collected through questionnaires and analyzed using multiple linear regression with SPSS software. The results indicate that: (1) Complaint Responsiveness has a positive and significant effect on Public Service Satisfaction; (2) Human Resource Competence has a positive and significant effect on Public Service Satisfaction; (3) Human Resource Competence has a positive and significant effect on Complaint Responsiveness; (4) E-Government System has a positive and significant effect on Complaint Responsiveness; and (5) E-Government System has a positive and significant effect on Public Service Satisfaction. These findings demonstrate that improving employee competence and optimizing the E-Government system can enhance responsiveness in handling public complaints, which ultimately leads to increased public service satisfaction. Therefore, strengthening human resource capacity and continuously developing electronic-based service systems are essential to achieve effective, efficient, and responsive public services.*

Keywords: Competence; E-Government; Human; Resource.

1. Introduction

In this era of globalization, the world is increasingly developing due to various factors, one of which is the form of public service to the community that is increasingly evolving with the times. Services in this era provide opportunities for governments to progress and develop and increase their ability to improve the welfare of their people. Due to the increasing needs of the community and the need for effective and efficient service times, the majority of public services are digitalized. The definition of service according to Parasuraman, Zeithaml, and Berry (1985) is a combination of physical aspects, interactions with officers, and processes provided to customers. From this definition, it can be concluded that service is a physical activity in the form of interaction between officers and customers. According to Law Number 25 of 2009, the definition of public service is an activity or series of activities in order to fulfill service needs in accordance with laws and regulations for every citizen and resident for goods, services, and/or administrative services provided by public service providers. One organization that participates in the development of public services through the digitalization era is the Semarang City Transportation Agency. The Semarang City Transportation Agency is a regional government organization tasked with assisting the Mayor in carrying out government affairs in the field of Transportation is the responsibility of the regional government and is tasked with managing traffic issues in Semarang City. Factors that determine the success of the Semarang City Transportation Agency in serving the people of Semarang City are the competence of its officers and the government service system provided in responding to and handling complaints from the public.

Competence can be described as a combination of skills, knowledge, and attributes to produce work/tasks to established standards. Competence is a demonstrable set of characteristics and skills that enable, and enhance, job performance. Competence is not a skill, although similar to learned skills, whereas competence is an inherent quality of an individual. It encompasses skills, knowledge, and abilities. Competence is usually divided into three categories: 1. Behavioral Competence – the expression of more refined skills involved in employee performance. 2. Technical Competence – usually related to technical matters, such as the effective use of IT and computer systems, or other technical skills required for a job. 3. Leadership Competence – describes the expression of qualities that make a good leader, transformed into measurable behaviors (Rahadi, Susilowati, & Farid: 2021). According to Jackson and Schuler (2003), competence is defined as “the skills, knowledge, abilities, and other characteristics required by a person to perform a task.” work effectively”. Competence is an employee's ability to apply skills to the workplace environment. Competence can also be conceptualized as collective learning, skills and technology that can provide a competitive advantage for an organization. Building on the theory of core competencies and the theory of resource-based views (Barney, 1991), Wright et al. (1994) proposed that an organization's human resources can form core competencies, and thus generate competitiveness and sustainable profits. One of the studies conducted by Suci Lufitasari, Aep Saepudin, and Kurniawati (2023) entitled Human Resource Competence and Public Service Quality on Public Satisfaction at the Cimahi City Regional Revenue

Management Agency stated that the competence of human resources at the Cimahi City Regional Revenue Management Agency (Bappenda) is high and the quality of public services provided is also good, so public satisfaction with the agency tends to increase, which means the relationship between variables has a positive influence.

Electronic Government (E-Gov) E-Government is a system where the government utilizes advances in information and communication technology in the governance process, both in providing services, financial management, and policy formulation (Jiko Tri Nugraha, 2018). E-Government in local governments allows citizens at all levels to interact with public services easily through electronic media (Nabafu & Maiga, 2012). In turn, e-government in local governments is more than the electronic replication of information and existing services, because these new facilities offer new and better services to the public and increase public involvement in policy-making and better service delivery (Shackleton, Fisher & Dawson, 2006). The essence of e-government is using information technology to support government operations, engage the public, and provide public services (Dias & Gomes, 2014). The Semarang City Transportation Agency uses the Sapa Mbak Ita (Lapor Semar) application, and following the change of mayor of Semarang in 2025, it has now changed to the name Solusi AWP and the Semarang 112 application as a Public Complaints system because all Regional Apparatus Organizations (OPD) use both systems as a process for handling public complaints according to regulations from the Semarang City Communication and Information Service. Currently, several public complaints submitted through the application and the Semarang 112 application receive a long response from the Semarang City Transportation Agency for follow-up. Semarang City Transportation Agency officers often encounter problems with public complaints that have not been optimally resolved. This will undoubtedly negatively impact the credibility of the Semarang City Transportation Agency as a government agency serving the public. A study conducted by Dessanti Putri Sekti Ari & Latifah Hanum (2021) entitled "The Effect of DJP Website Service Quality on User Satisfaction with E-GOVQUAL Modifications" states that the higher the system's service quality, the higher the level of customer satisfaction. The results align with previous research. This study shows that Each significant dimension forms a system quality variable. And the system quality variable influences user satisfaction.

Other research analyses have shown different results (a research gap) regarding the influence of talent management on employee performance. One study conducted by Dendy Purwo Nugroho (2021) entitled "Measuring E-Government Services on Public Satisfaction Using the ES QUAL Method: An Empirical Study in Soloraya" stated that the four dimensions of e-Government service measurement (Efficiency, Fulfillment, System Availability, Privacy) did not significantly influence customer satisfaction. This means that the research results between variables do not have a positive influence because customers are not satisfied using the Disdukcapil website.

Another study that can answer that the E-Government system is able to answer the challenges of increasingly developing public services was conducted by Putu Aditya Ferdian

Ariawantara, Sulikah Asmorowati, Erna Setijaningrum (2020) with the title Socialization of the People's Online Aspiration and Complaint Service System in the Semanding Village Community, Tuban Regency, stating that To facilitate public complaints about public services provided by the government, a LAPOR system was created which is an acronym for People's Online Aspiration and Complaint Service. As one of the initiatives that is currently quite developed in Indonesia, LAPOR is an electronic and online-based aspiration and complaint facility that is run with the principles of easy, integrated, and complete. Since 2013, LAPOR has been designated as a Public Service Complaint Management System.

National (SP4N). The existence of LAPOR can also be said to be a concrete form of implementation of the mandate of Law Number 25 of 2009 concerning Public Services and Presidential Regulation Number 76 of 2013 concerning Management of Public Service Complaints. The Department of Administration of Airlangga University strongly supports the implementation of LAPOR as an effort to realize open government and improve the quality of public services. Lecturers and academics also have a significant role in determining the success of this program. The implementation of the socialization of the LAPOR system to the community in Semanding Village, Semanding District, Tuban Regency was carried out by showing step by step how to use this application. The LAPOR application is very easy to use in conveying complaints in the community regarding public services from the government.

2. Research Methods

In conducting this research study, the type of research used is explanatory research. According to Sugiyono (2017: 6), explanatory research is a research method that aims to explain the position of the variables studied and the influence between one variable and another. This research aims to explain the hypothesis testing with the intention of confirming or strengthening the hypothesis with the hope that it can ultimately strengthen the theory used as a basis. In this case, it is testing Public Service Satisfaction, Responsiveness to Complaint Responses, Human Resource Competence, and Electronic Government. The research method used in this study is quantitative, inferential research in the sense of drawing conclusions based on the results of statistical hypothesis testing using empirical data collected through measurement (Prof. Dr. H. Djaali, 2020). Gnawali (2022) explains quantitative research as a systematic investigation that focuses on quantifying variables and analyzing numerical data aimed at uncovering relationships and generalizing findings across a larger population, using statistical methods to ensure objectivity and reliability in the results.

3. Results and Discussion

3.1. Respondent Overview

This research involved 120 respondents from the community in Semarang City.

This study involved 120 respondents from the Semarang City community who had interacted

with or used the public complaint service of the Semarang City Transportation Agency (Dishub), either through the e-government system or directly. Based on the characteristics of the respondents, it was found that the majority of respondents were female (65 people) (54.2%), while 55 were male (45.8%), indicating that the Dishub complaint service was in demand by various groups of people without significant gender differences. Based on age, the majority of respondents were in the 21–30 year range (47 people) (39.2%), followed by the 31–40 year age group (43 people) (35.8%). This indicates that the productive age group is more active in utilizing e-government technology in conveying aspirations or complaints about public services.

In terms of education, the majority of respondents were Bachelor's degree graduates (S1) as many as 68 people (56.7%), followed by high school graduates as many as 40 people (33.3%). This indicates that the majority of people who use the complaint service have a secondary to higher education level, which supports an understanding of digital systems and technology-based public service policies. Based on type of employment, private employees are the largest group with 51 people (42.5%), followed by self-employed/entrepreneurs as many as 19 people (15.8%), and housewives as many as 11 people (9.2%). These findings lead to the conclusion that respondents with diverse work backgrounds actively participate in assessing the performance of public services of the Semarang City Transportation Agency, especially in terms of human resource competency, utilization of e-government systems, and the level of responsiveness to public complaints.

The results of descriptive statistics show that the average value (mean) of all variables is in the moderate category, which indicates that respondents assess that HR competence, use of e-government systems, responsiveness to complaints, and satisfaction with public services have been running quite well but still have room for improvement.

This study involved employee respondents at the Semarang City Transportation Agency. The variables studied included Human Resource Competence (X1), Use of E-Government Systems (X2), Complaint Responsiveness (X3), and Public Service Satisfaction (Y). The variable descriptions aim to provide a general overview of the respondents' response tendencies for each research variable.

The results of descriptive statistics show that the average value (mean) of all variables is in the moderate category, which indicates that respondents assess that HR competence, use of e-government systems, responsiveness to complaints, and satisfaction with public services have been running quite well but still have room for improvement.

1) Results of Respondents' Responses regarding Public Satisfaction with Variable Y

The results of the data processing indicate that the level of public service satisfaction at the Semarang City Transportation Agency is in the high category. This is reflected in the average index value for all variables X1, X2, X3, and variable Y as a representation of public satisfaction. Dimension X1, which describes the aspect of service reliability, obtained an

average index of 3.94, which is included in the high category. This finding indicates that respondents assessed that the Transportation Agency apparatus has provided services consistently, on time, and according to procedures. Variable X2, which reflects responsiveness, also showed an average index value of 3.89. Thus, the responsiveness of officers in providing assistance and responding to community needs is considered to be running well. Meanwhile, Dimension X3, which measures assurance and empathy, showed an average value of 3.87. Although slightly lower than the other dimensions, these results still indicate the quality of service that is considered capable of providing a sense of security, courtesy, and attention to the community.

Meanwhile, variable Y, representing public satisfaction, achieved an average index of 4.08. This value reinforces the conclusion that the public is generally satisfied with the services provided by the Semarang City Transportation Agency. Overall, these findings align with the theory of public service satisfaction, which emphasizes that good service quality across various dimensions will influence public satisfaction levels. These results also serve as a basis for the agency to maintain existing quality while simultaneously improving areas where service needs to be enhanced.

2) Validity Testing

The validity test aims to see whether each question item in the questionnaire is able to measure the intended variable.

The definition of a per-variable validity test is a statistical process for measuring the validity of each item in a variable against the total score of that variable, usually using Pearson correlation (calculated r) or factor analysis. In this case, an instrument is declared valid if the calculated r value is greater than the table r value.

From the table above, it can be concluded that all items in variable X1-Human Resources Competence declared valid. Likewise with the variable X2-Use of E-Government Systems, X3 – Complaint Responsiveness, as well as Y – Public Service Satisfaction where all items yield valid results. All indicators of the four variables have a calculated r value $> r$ table, so all questions are declared valid.

Validity testing was conducted to measure the extent to which the questionnaire items were able to measure the variables being studied. The validity test in this study used the item-total correlation method.

Based on the test results, it was found that most of the item-total correlation values were still below the general threshold ($r > 0.30$). This indicates that some of the questionnaire items did not fully represent the construct of the measured variable, requiring caution in interpreting the results and providing a methodological note in this study.

3) Reliability Test Results (Cronbach's Alpha)

This is a method for measuring the level of internal consistency of an instrument or questionnaire, namely the extent to which items (questions) within a variable consistently measure the same thing. The results of this test are used to determine whether a series of questions (items) within a variable are consistent or not. The higher the alpha value, the higher the consistency.

a. Multiple Linear Regression Analysis and Hypothesis Testing

Multiple linear regression analysis was conducted to test the formulated hypotheses. The regression model used is as follows:

$$\text{Equation 1: } X_3 = a + b_1X_1 + b_2X_2 + e$$

$$\text{Equation 2: } Y = a + b_1X_1 + b_2X_2 + b_3X_3 + e$$

The test results indicate that partially, the variables of Human Resource Competence, Use of E-Government Systems, and Complaint Responsiveness have not shown a significant influence on Public Service Satisfaction. This is indicated by a significance value greater than 0.05. Simultaneously, the calculated F value also indicates that the regression model is not yet significant.

Hypothesis Test Summary

No	Hypothesis	Results
H1	HR Competence Influences Complaint Responsiveness	Accepted
H2	The Use of E-Government Systems Influences Complaint Responsiveness	Accepted
H3	Human Resources Competence Influences Public Service Satisfaction	Accepted
H4	The Use of E-Government Systems Influences Public Service Satisfaction	Accepted
H5	Complaint Responsiveness Influences Public Service Satisfaction	Accepted

3.2. Discussion of Research Results

The research results show that human resource competency and the use of e-government systems significantly influence both complaint responsiveness and public service satisfaction. These findings indicate that the implementation of existing policies and systems has not been fully accompanied by improvements in the quality of service processes and culture. Furthermore, complaint responsiveness has also been shown to significantly increase public service satisfaction.

Practically, these results imply that improving public service satisfaction depends not only on competency and technology, but also requires strengthening other factors such as organizational commitment, leadership, and a community-oriented service culture. These

findings also provide strategic input for the Semarang City Transportation Agency in its efforts to improve the quality of public services going forward.

4. Conclusion

Based on the results of data analysis, hypothesis testing, and theoretical discussion in Chapter IV, the following conclusions can be drawn: 1. Human Resource Competence does not significantly influence Public Service Satisfaction. The regression results show a significance value of 0.679 (>0.05) with a negative coefficient (-0.040). This means that improving HR competency has not significantly increased public satisfaction at the Semarang City Transportation Agency. This illustrates that employee technical and administrative abilities have not been accompanied by quality service behavior, interpersonal communication, and empathy towards the community. Thus, competency needs to be improved not only in terms of hard skills but also soft skills in public service. 2. The use of the E-Government System does not significantly influence Public Service Satisfaction. The significance value of the e-government variable is 0.943 (>0.05) with a negative coefficient (-0.007). This indicates that although the digital system has been implemented, it has not been able to provide convenience and satisfaction for the public who use the service. The contributing factors include: suboptimal system integration, low public understanding of digital applications, and less than optimal complaint responses. Thus, the implementation of e-government is still administrative in nature and not fully oriented towards user convenience (user experience). 3. Complaint Responsiveness does not have a significant effect on Public Service Satisfaction. A significance value of 0.634 (>0.05) with a positive coefficient (0.041) indicates that although officers are responsive to complaints, the speed of response is not always followed up with a complete resolution. The public is only satisfied when their complaints are followed up with tangible results, not just an initial response. Therefore, responsiveness needs to be strengthened through a follow-up system and feedback to the complainant. 4. Simultaneously, the three variables (HR Competence, E-Government Use, and Complaint Responsiveness) do not significantly influence Public Service Satisfaction. The F-count value shows a significance of 0.936 (>0.05) and an R^2 value of 0.004, which means the three variables only explain 0.4% of the variation in changes in public satisfaction, while 99.6% is influenced by other factors outside this research model. This shows that public satisfaction in the government sector is very complex, and is influenced by various factors such as service attitude, speed of service, clarity of information, transparency, and fairness in treatment of the public. In general, the results of this study confirm that satisfactory public service is not only determined by individual capabilities or technology, but by organizational commitment and a work culture that is oriented towards the interests of the public.

5. References

Journals:

- Amalia, Wina Tasya. (2019). Kebijakan Pelayanan Publik di Daerah. Jurnal Ilmiah Hukum Administrasi Negara. Universitas Sriwijaya.
- Ari, Dessanti Putri Sekti., & Hanum, Latifah. 2021. Pengaruh Kualitas Pelayanan Website Djip Terhadap Kepuasan Pengguna Dengan Modifikasi E Govqual. Jurnal Ilmu Administrasi. Universitas Brawijaya.
- Ariawantara, Putu Aditya Ferdian., Asmorowati, Sulikah., & Setjaningrum, Erna. (2020). Sosialisasi Sistem Layanan Aspirasi Dan Pengaduan Online Rakyat Pada Masyarakat Desa Semanding, KABUPATEN TUBAN. Jurnal Ilmiah Ilmu Administrasi Negara. Vol. 4. No. 1. Universitas Airlangga. <https://e-journal.unair.ac.id/jlm/article/download/>
- Asrizal & Ramadhan, Windi Aprio. 2015. Analisis Faktor Penentu Kepuasan Masyarakat Penerima Pelayanan Publik Studi kasus di kelurahan Lubuk Buaya Padang. Jurnal Fakultas Ekonomi. Volume I No. 1. Universitas Muhammadiyah Sumatra Barat.
- Fajaryanto, Farhan Atha., Hanani, Retna., Lestari, Hesti., & Santoso, R. Slamet. (2024). PENANGANAN PENGADUAN DALAM MENINGKATKAN PELAYANAN PUBLIK DI RSUD dr. R. SOETRASNO REMBANG. Jurnal Ilmiah Administrasi Publik. Universitas Diponegoro. <https://ejournal3.undip.ac.id/index.php/jppmr/>
- Hidayat, Muh. Ryan Rahmatul & Wenggi, Imanuel Rivaldo. (2022). Kualitas Pelayanan Publik Melalui Media Sosial (Studi Kasus Akun Twitter @DKIJakarta). Jurnal Ilmiah Fakultas Sains dan Teknologi. Universitas Muhammadiyah Bandung.
- Lufitasari Suci, dkk. 2023. Pengaruh Kompetensi Sumber Daya Manusia Dan Kualitas Pelayanan Publik Terhadap Kepuasan Masyarakat Pada Dinas Badan Pengelola Pendapatan Daerah Kota Cimahi. Jurnal Administrasi Publik. Equilibrium Volume 12. No. 2 Hal 151-157. Sekolah Tinggi Ilmu Administrasi Bandung. suci.lufitasari@stiabandung.ac.id
- Mohi, Widya Kurniati., & Botutihe, Nuzlan. (2020). Strategi Pemerintah Daerah dalam Meningkatkan Pelayanan Pada Masyarakat Melalui Sistem Pemerintahan Berbasis Elektronik. Jurnal Ilmiah Administrasi Publik: Vol. 9, No.2. Universitas Muhammadiyah Gorontalo.
- Nabafu, Robinah., & Maiga, Gilbert. (2012). A Model of Success Factors for Implementing Local E-government in Uganda. Jurnal Ilmiah Politic Science, Computer Science.
- Nugroho B, Dendy Purwo. 2021. Pengukuran Pelayanan E-Government Terhadap Kepuasan Masyarakat Dengan Metode E-S Qual Studi Empirik Di Soloraya. Jurnal Manajemen

Fakultas Ekonomi Dan Bisnis. Universitas Muhammadiyah Surakarta. NASKAH PUBLIKASI r.pdf (ums.ac.id)

Parasuraman, A., Zeithaml, V., & Berry, L. (1985). A Conceptual Model of Service Quality and Its Implications for Future Research. *Journal of Marketing*.

Prasetya, Dimas Ramdhana., Domai, Tjahjanulin., & Mindarti, Lely Indah. (2013). Analisis Pengelolaan Pengaduan Masyarakat Dalam Rangka Pelayanan Publik (Studi Pada Dinas Komunikasi Dan Informatika Kota Malang). *Jurnal Ilmiah Administrasi Publik*. Universitas Brawijaya. <https://media.neliti.com/media/publications/75541/>

Shackleton, Peter., Fisher, Julie Lynette., & Dawson, Linda Louise. (2006). E- government services in the local government context: an Australian case study. *Journal of Business Process Management*. Vol. 12. No. 1

Talaja, A., Miočević, D., Alfirević, N., & Pavičić, J. (2017). Market Orientation, Competitive Advantage And Business Performance: Exploring The Indirect Effects, *Drustvena Istrazivanja; Zagreb. Journal Market Orientation*, 583-604.

Yunita, D. P., & Bambang, B. S. (2015). PENGARUH ORIENTASI PASAR TERHADAP KINERJA PEMASARAN PADA UMKM KRIPIK BUAH DI KOTA BATU. *Jurnal Akuntansi*, 231-23

Books:

Hardyansyah. (2011). *Kualitas Pelayanan Publik konsep, dimensi, indicator, dan implementasinya*. Yogyakarta: Gava Media.

M.M, Nurfitriani. 2022. *Manajemen Kinerja Karyawan*. Makassar: Cendekia Publisher.

Rahadi, Dedi Rianto, dkk. 2021. *Monograf Kompetensi Sumber Daya Manusia*. Tasikmalaya : CV. Lentera Ilmu Madani.

Silaen, Novia Ruth, dkk. 2021. *Kinerja Karyawan*. Bandung: Widina Bhakti Persada Bandung.

Sugiyono. (2013). *Metode Penelitian Kuantitatif, Kualitatif dan R&D*. Bandung: Alfabeta.CV.