-RESEARCH ARTICLE-

E-GOVERNMENT EFFECTIVENESS IN SERVICE PERFORMANCE FOR CITIZENS

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Abstract

Indonesian citizens seem less satisfied with the effectiveness of e-government for service performance. The perception of the Indonesian public e-government is low because they consider it an unsuccessful practice in Indonesian public sector departments. The current research investigates the impact of quality of information, transparency, and service functionality on service performance. This study also analyzes the mediating role of e-leadership between the quality of information and service performance. Cross-sectional data is collected from 384 citizens with a random sampling technique. The study found that the effectiveness of e-government in Indonesia can be improved with quality of information, transparency, and service functionality. This research has developed a significant model of service performance that is a worthy addition to the literature. The study has significant theoretical implications that improve the e-government and service performance model. Consequently, the study has empirical findings that are also worthy of enhancing the effectiveness of e-government in-service performance for the citizens of Indonesia. The research has some limitations that are reported with the critical future directions to be considered significant by the scholars to contribute further to literature by investigating the new relationships related to the service performance model.

Keywords. E-government, citizen satisfaction, service performance, e-leadership, service quality

1. INTRODUCTION

The role of e-government has become critical in modern times because it is the way forward to improve the functionality of the government departments for the citizens (Manoharan, 2012). Citizens always look for adequate information and better working strategies to improve their living standards (Sharma, 2015). The digitalization of the information and the government system is the key to getting better strategies necessary for the government's proper working (Thoppae et al., 2021). The e-government is established in all de partments of America and Norway because these countries believe that the role of this model of government is necessary for the better functionality of the organizations, the satisfaction of the citizens, and continuous monitoring of all the related information (Weerakkody et al., 2016). Indeed, developed countries have relatively developed the model of e-governance with successful implementation (Sayin et al., 2013). Similarly, e-governance is evaluated in Japae-governance as it has shifted all government departments to fair working (Arief et al., 2021). Moreover, the transparency in the e-governance system of Japan has become a significant factor in the public's satisfaction (Mishra et al., 2020). Other countries are trying to adopt Japan's e-government model as it is the best way to adopt a modern strategy for proper working (Baharon et al., 2017).

Indonesia is not as developed as Japan and America, but it also implemented the concept of e-governance in various departments (Rasool et al., 2020). These departments are working to provide better satisfaction to the citizens (Bernhard et al., 2018). However, the citizens in Indonesia aren't satisfied because they don't think the e-government system is truly implemented in all departments (David, 2018). Furthermore, they also believe that the successful establishment of e-government in any department takes time and quality of work (Roziqin et al., 2022). The citizens reported different complaints on the digital portal of various public sector departments of the government, but they didn't get better services in this regard. Also, many citizens in Indonesia with no information about the technology aren't assisted in using the e-government in a better way (Abdulkareem et al., 2022). Digital information sharing in Indonesia is good, but the public isn't satisfied with the shared information, and there are questions about the quality of service (Hooda et al., 2022). Furthermore, many citizens reported that they don't want an e-government system in the public sector departments of Indonesia if it isn't established properly to provide all related facilities to the people . Meanwhile, many citizens believe that this stage of e-government would be improved over time to provide better facilities to the people (Yaghoubi et al., 2011).

The research work on e-government service performance is found in the literature that discussed multiple perspectives of e-government and its positive consequences. The study Cegarra-Navarro et al. (2012) reported that the e-government is the only possible

way to deal with the critical things related to public affairs by government departments. The study by Kang et al. (2010) concluded that the e-government system could be developed for better working over time because it is a successful way of service performance. The research by Kaisara et al. (2011) found that the e-government should be developed to provide better service quality to the people because their satisfaction is critical in establishing e-government. Dyussenov et al. (2021) reported that backward countries adopt the e-government system model of developed countries for its successful implementation in government departments. The research by Shah et al. (2022) found that the e-government system is necessary for providing service in the government sector because this way of working is necessary for the citizens. The research by Zhao et al. (2021) obtained that the e-government system is a way of fair working because it efficiently provides all related information to the people for a better working approach with sustainability. Anwer et al. (2016) also reported that the e-government system has become critical for the successful working of government departments in the digital age.

Apart from the studies on e-government, the work of the scholars related to service performance was reviewed critically, and it was found that there is a clear gap in the literature about the role of e-government in the service sector. To address the identified gap, this study is initiated deliberately for a significant purpose to improve the effectiveness of e-government for service performance for the public of Indonesia. The current research investigates the impact of quality of information, transparency, and service functionality on service performance. Furthermore, this study also analyzes the mediating role of e-leadership between the quality of information and service performance. This research has developed a significant model of service performance that is a worthy addition to the literature. The study has significant theoretical implications that improve the e-government and service performance model. Accordingly, the study has empirical findings that are also worthy of enhancing the effectiveness of e-government for service performance for the citizens of Indonesia. The research has some limitations that are reported with the critical future directions to be considered significant by the scholars to contribute further to literature by investigating the new relationships related to the service performance model.

2. REVIEW OF LITERATURE

The service performance of the government departments for the benefit of the citizens is critical for the better living standard of the communities (Sharma, 2015). The service of the government is now shifted to the digital platform, and more strategic actions are taken to provide related facilities to each individual with equity (Weerakkody et al., 2016). Equity and efficiency in service performance are possible when the government administration is working fairly to improve the product for the benefit of citizens (Kašubienė et al., 2007). The role of transparency in service performance is critical

because the citizens are influenced by its fair working and transparency (Mishra et al., 2020). The quality of shared information matters a lot in the satisfaction of the citizens (Manoharan, 2012). The modern age has informed citizens about their work, and they are also concerned about looking into the matters of the government (Thoppae et al., 2021). The information should be appropriately provided to the citizens because it is their basic right to get the appropriate information (Sayin et al., 2013). The developed countries governments are sharing information of working with the people with the help of modern technology that has changed the traditional working of these organizations (Arief et al., 2021).

Furthermore, the working of government in favor of citizens is considered the best service to the citizens (Baharon et al., 2017). Transparency is critical in the service provided to the people (Rasool et al., 2020). The people are always willing to get transparency in the service performance by the government because they believe that the transparency of government is the only way to equity (Bernhard et al., 2018). Informed citizens always seek transparent information and don't want ambiguity in government activities (David, 2018). Furthermore, transparency is the key to successful information sharing with the people and is also considered the basic purpose of e-governance (Roziqin et al., 2022). The lack of transparency in digital services to the citizens isn't acceptable to the people (Manoharan, 2012). The service's functionality is considered the key success factor in improving the service quality (Yaghoubi et al., 2011). The countries with modern e-government systems are fairly working on the services provided to the citizens from different departments (Cegarra-Navarro et al., 2012).

Furthermore, in countries that are new to e-services to the people, their integrity and work are still to be improved (Sayin et al., 2013). Indeed, the service's functionality to the citizens could be the best option to avail the current services with proper working (Rasool et al., 2020). The functionality of the government works should be improved in favor of the citizens to ensure that they are satisfied with the government sector work (Kaisara et al., 2011). E-leadership is considered digital leadership because it is the modern way of dealing with traditional things (Abdulkareem et al., 2022). E-leadership is based on different procedures that are critically important to improving the function of any department (Hooda et al., 2022). Fair e-leadership ensures transparency in the working of departments, as this transparency is considered critical in the working of the government . Indeed, the traditional leadership style also fits the organizational work, but to monitor the performance of the employees in a more advanced way to provide better services, the concept of e-leadership is necessary to be adopted by the department (Arief et al., 2021).

The study of Manoharan (2012) concluded that the citizens of any country have the right to get adequate information from the government departments related to their

matters in the process. The research Sharma (2015) reported that new and online information is important for citizens because they seek it in their fairway for their strategic working. Thoppae et al. (2021) said that the countries that aren't providing adequate information to the people these governments are hiding the information. Weerakkody et al. (2016) concluded that modern organizations are shifting to the digital way of information providing as the digital process is the smart way of dealing with these issues. The research by Sayin et al. (2013) highlighted that the quality of data from the government department to the citizens could provide them a way forward to be satisfied with the government. Kašubienė et al. (2007) concluded that the rich nations have transferred to the digital governance system that is the key to the quality of work and information shared with the related people. Arief et al. (2021) concluded that nations that aren't providing adequate information to their citizens are required an appropriate way to work and achieve sustainability in it. Mishra et al. (2020) reported that citizens are only satisfied when real-time information is shared with them citizens according to their demands. The study by Baharon et al. (2017) concluded that quality information sharing is possible when there is transparency in the working of the government department in favor of the citizens. Also, Baharon et al. (2017) reported that when there are no checks on the shared information by the digital governments, there wouldn't be any satisfaction for the citizens.

H1: Quality of information has an impact on service performance.

Rasool et al. (2020) concluded that transparency in service performance is necessary for citizens' satisfaction. Bernhard et al. (2018) also highlighted that the e-government system must provide transparent service to any country's public. Furthermore, David (2018) highlighted that the key function of government department service performance is based on the fair working of the employees in favor of citizens. The study by Roziqin et al. (2022) reported that the transparent working department is successful compared to the other departments that aren't working transparently. Indeed, (Abdulkareem et al., 2022) noted that the key to service performance is the appropriate working of the government department with e-governance.

Moreover, Hooda et al. (2022) reported that the successful working of the government is possible when there is equality among the people, and they are treated fairly. The study by Nam et al. (2022) demonstrated that transparent information is the right of the citizens, and it is also the key to the fair working of the government that makes it possible for the other department of the government to get proper working services. The research Cegarra-Navarro et al. (2012) highlighted that service performance is necessary for the government to satisfy the citizens. Still, this service performance should be in a fair way that would be useful for better service delivery. The study by Kang et al. (2010) also highlighted that in America, the e-governance system is transparent, and the citizens seem satisfied with the working process of the

government. Indeed, Kaisara et al. (2011) highlighted that transparency and fair working shouldn't be avoided in better service delivery to the people.

H2: Transparency has an impact on service performance.

The functionality of the government in any department is critical, as reported by Kaisara et al. (2011). Without fair work, the citizens aren't satisfied with the work of the government. The study by Dyussenov et al. (2021) highlighted that the traditional government system and working of the public department are shifting to the digital way to ensure that the public has better services. The research Dyussenov et al. (2021) reported that real-time information is the best source of service performance that is also attracting people who are directly linked with the government department. Shah et al. (2022) concluded that the function of any organization should be for the benefit of the public because they are the key stakeholders for whom satisfaction is necessary for better service performance. The research by Anwer et al. (2016) highlighted that fairway of service performance is the key to better function, and it helps to facilitate the citizens with appropriate services. The research by Tshering et al. (2022) demonstrated that the government's working to deliver better public services should be the best way to satisfy the citizens mentally. The research concluded that the function of any government organization would be improved if it worked in the best strategic way to deal with critical issues. Prybutok, Zhang, and Ryan (2008) research highlighted that service performance is necessary for the citizens because they expect fair services from the government. Similarly, Manoharan (2012) reported that the government department's transparent working and better functionality can satisfy the citizens with the better working approach that is leading the citizens to better satisfaction.

H3: Service functionality has an impact on service performance.

Sharma (2015) conducted that the role of leadership in government department performance is critical and that e-leadership emerges for better working of government departments. Thoppae et al. (2021) reported that the quality of information and perfection of e-government would be possible when all the resources are utilized legally to provide better services to the people. The study by Weerakkody et al. (2016) concluded that e-leadership helps to make better strategies in the e-government working system to transparently provide better services to the citizens. The study by Sayin et al. (2013) asserted that transparency in the government department is the key to successful working that would provide better working opportunities to the modern organization for service delivery. Kašubienė et al. (2007) highlighted that leadership is necessary for any department to monitor the services delivered to the people. Monitoring the services and modifying them for fair use can be the better working approach for the citizens to improve the quality of services the e-leadership, concluded by Arief et al. (2021).

Meanwhile, Mishra et al. (2020) concluded that large organizations are successfully implementing e-leadership strategies for the transparency and quality of the information provided to the public. Furthermore, Baharon et al. (2017) concluded that service performance had become a critical factor because better services are possible when government organizations work to improve the services' capacity following the citizens' requirements. Also, Rasool et al. (2020) concluded that e-leadership is the best way to improve service performance as it is based on strategic monitoring of the services. Figure 1 of this research portrays the conceptual model.

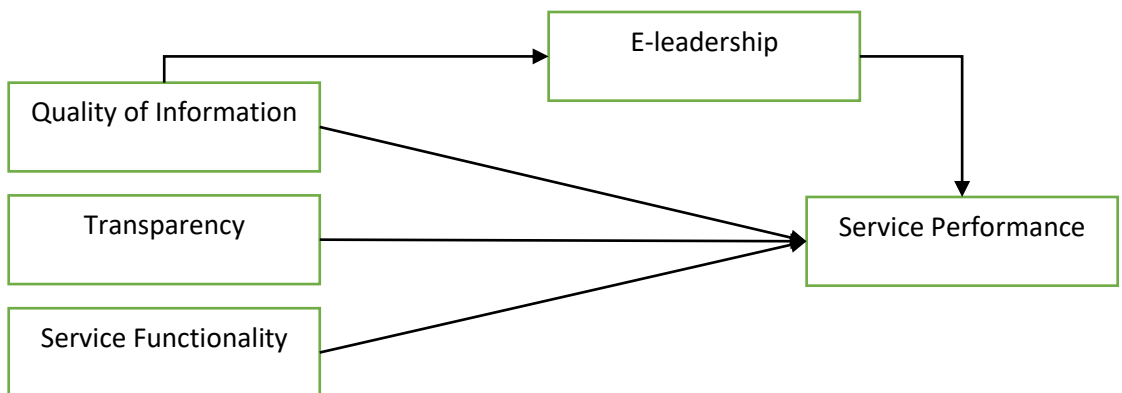H4: E-leadership mediates the relationship between quality of information and service performance.

Figure 1. Research Framework of Service Performance Model of E-Government Effectiveness

3. METHODOLOGY

This research has used the "rating scale items" developed and employed by the earlier studies in the literature. The study used the items after confirming the "face validity" with the help of different researchers in the top universities of Jakarta. The study intended to collect the data on a "five-point Likert scale" questionnaire that is significantly used by "adopting" the scale items from the published research works. The research has adapted the "scale items" for quality of information from to determine its direct impact on the service performance of e-government effectiveness in Indonesia. Secondly, the research has adapted the "scale items" for transparency from Mahmoodi et al. (2016) to determine its direct impact on the service performance of e-government effectiveness in Indonesia. Furthermore, the research has adapted the "scale items" for service functionality from Papadomichelaki et al. (2009) to determine its direct impact on the service performance of e-government effectiveness in Indonesia. Additionally, the study adapted the "measurement items" for e-leadership from Montgomery et al. (2016) to investigate the mediating relationship between the

quality of information and service performance for the effectiveness of e-government in Indonesia. Finally, the research has adapted the "scale items" for service performance from Wong et al. (2011) to determine its connection with e-leadership, quality of service, transparency, and service functionality. The "measurements" are reported in Table 1.

Table 1. Measurements

"Construct	Measurements
Quality of Information	The e-government service provides quality information.
	I get accurate information from the concerned department.
	The e-government service has discrimination in the quality of information.
	Sometimes, the information I get is not of quality.
	The information lack quality because of unfair e-government.
Transparency	The e-government is transparent in its actions.
	There is no discrimination in e-government practices.
	The E-government model has reduced corruption in the government sector.
	The e-government is manageable to perform better.
	The e-government has the capacity for transparent services.
	The transparency of the e-government services is satisfactory.
Service Functionality	The services of e-government are workable.
	I am satisfied with the e-government services practically.
	The e-government services are true to routine working.
	The citizens trust the proper working of e-government in public departments.
E-leadership	E-leadership is satisfactory in providing quality checks on e-government.
	E-government is truly implemented by e-leadership.
	Continuous improvement in e-government is possible with e-leadership.
Service Performance	E-government services are according to the requirements of the citizens.
	We aren't satisfied with e-government services.
	The e-government services need to be improved.
	The government is required to work for the efficiency of e-government.
	The performance of e-government helps obtain digital information."

The is based on "cross-sectional" data because it is a reasonable method for data collection when the purpose of the study is to collect data for "social sciences" research. Furthermore, the published studies on citizens' satisfaction are also conducted on the same data collection method. Field (2013) reported, "cross-sectional data is collected within a given time frame to investigate any issue in social sciences research." In addition, the research has used the "simple random sampling technique" method for data collection. Field (2013) reported, "random sampling is the way to collect data when the population of the study is known." Since this research is based on the satisfaction of the citizens related to the service performance of e-government; thus, this technique of data collection is useful for this research. Accordingly, the study has used the "survey" method of data collection. This data collection method is appropriate for any research because the researchers can collect data easily. Also, the "survey-based" data collection method is used in the studies of "social sciences" to collect the "cross-sectional" data as it is "cost and time" effective. Moreover, this study has used "Smart PLS 3.0" for significant findings of the "measurement model" and "structural model."

Since the "population" of this research is the citizens of Indonesia; thus, this study has considered the "Morgan' Table" for appropriate sample size determination. According to this table, when the population is larger than "10,000,0", the appropriate "sample size" is 384. This way, the study has finalized and printed 500 questionnaires to collect the data. To collect the data, the citizens are targeted in different bus and train stations in Indonesia. Furthermore, there was no discrimination against the people, and women, men, and aged people were allowed to provide the data for this study. The questionnaires were delivered to the respondents, who were informed that their personal information wouldn't be shared with the data analyst of this research. A sample of 384 is finalized for this research.

4. FINDINGS AND ANALYSIS

The data analysis of this research started with a "normality test" done with the values of "kurtosis and skewness." Indeed, Royston (1992) claimed, "skewness is a measure of symmetry, or more precisely, the lack of symmetry, and kurtosis is a measure of whether the data are heavy-tailed or light-tailed relative to a normal distribution." In accordance, Royston (1992) claimed, "a general guideline for skewness is that if the number is greater than +1 or lower than –1, this is an indication of a substantially skewed distribution, and for kurtosis, the general guideline is that if the number is greater than +1, the distribution is too peaked." The "kurtosis & skewness" findings are available in Table 2 that demonstrates the research data has acceptable "normality."

Table 2. Normality Test

Items	Mean	Standard Deviation	Excess Kurtosis	Skewness
QI1	3.245	1.502	-0.432	0.099
QI2	3.253	1.732	-0.502	0.416
QI3	3.528	1.87	-0.775	0.318
QI4	3.52	1.882	-0.743	0.402
QI5	3.541	1.719	-0.448	0.318
TP1	3.485	1.787	-0.691	0.222
TP2	3.515	1.806	-0.856	0.125
TP3	3.686	1.854	-0.767	0.198
TP4	3.707	1.833	-0.708	0.306
TP5	3.651	1.924	-0.765	0.357
TP6	3.563	1.867	-0.686	0.384
SF1	3.581	1.848	-0.614	0.367
SF2	3.611	1.834	-0.685	0.308
SF3	3.493	1.755	-0.423	0.445
SF4	3.537	1.879	-0.878	0.192
EL1	3.463	1.784	-0.589	0.307
EL2	3.638	1.764	-0.594	0.27
EL3	3.031	1.485	-0.084	0.616
SP1	3.166	1.495	0.504	0.898
SP2	3.192	1.438	0.894	0.954
SP3	3.127	1.453	0.494	0.775
SP4	3.118	1.38	0.555	0.66
SP5	3.192	1.495	0.373	0.718

The "convergent validity" test is used to determine the "reliability and validity" of research. Tavakol and Dennick (2011) study claimed, "factor loading shows how well an item represents the underlying construct, and it must be over 0.70." In addition, Tavakol et al. (2011) claimed, "Cronbach's alpha ($\alpha > 0.70$) is a measure of internal consistency, that is, how closely related a set of items are as a group. It is considered to be a measure of scale reliability." Similarly, Raykov (1997) claimed, "composite reliability (CR > 0.70) is a measure of internal consistency in scale items, much like Cronbach's alpha." Finally, dos Santos et al. (2021) claimed, "average variance extracted (AVE > 0.50) is a measure of the amount of variance that is captured by a construct concerning the amount of variance due to measurement error." The results of these factors are reported in Table 3, which shows that the research has "reliability and validity." Furthermore, the results of the "measurement model" are also reported in Figure 2.
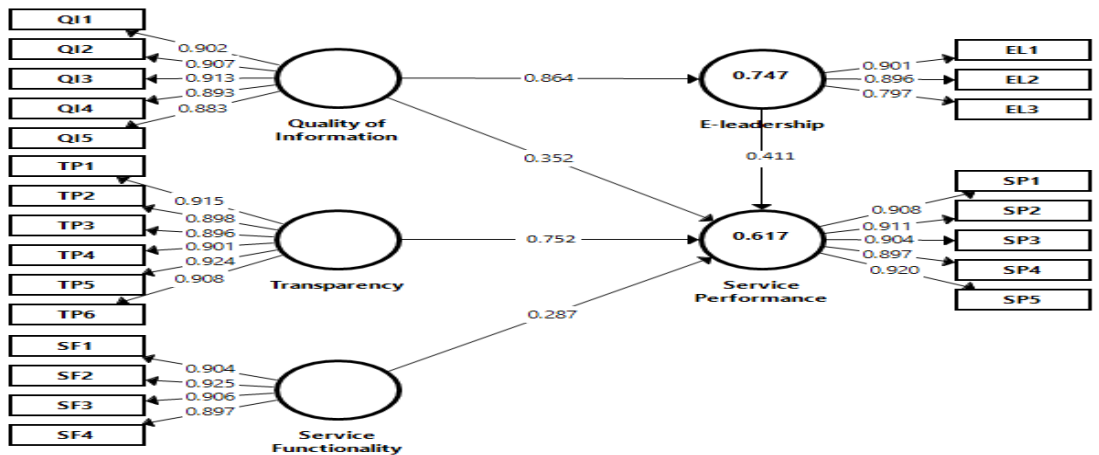
Figure 2. Measurement Model

Table 3. Convergent Validity

Construct	Items	Factor Loadings	α	CR	AVE
E-leadership	EL1	0.901	0.831	0.900	0.75
	EL2	0.896			
	EL3	0.797			
Quality of Information	QI1	0.902	0.941	0.955	0.81
	QI2	0.907			
	QI3	0.913			
	QI4	0.893			
	QI5	0.883			
Service Functionality	SF1	0.904	0.929	0.949	0.825
	SF2	0.925			
	SF3	0.906			
	SF4	0.897			
Service Performance	SP1	0.908	0.947	0.959	0.825
	SP2	0.911			
	SP3	0.904			
	SP4	0.897			
	SP5	0.920			
Transparency	TP1	0.915	0.957	0.965	0.822
	TP2	0.898			
	TP3	0.896			
	TP4	0.901			
	TP5	0.924			
	TP6	0.908			

The research also investigated the "discriminant validity" of this research. The study by Ab Hamid et al. (2017) claimed, "discriminant validity tests whether concepts or measurements that are not supposed to be related are unrelated." Ab Hamid et al. (2017) reported that "HTMT is a measure of similarity between latent variables." In addition, Gold et al. (2001) claimed "the threshold of HTMT is arguable. Most of the publications recommend value should be below 0.90." The outcomes reported in Table 4 show that the research has "discriminant validity."

Table 4. Discriminant Validity

	E-leadership	Quality of Information	Service Functionality	Service Performance	Transparency
E-leadership					
Quality of Information	0.776				
Service Functionality	0.754	0.773			
Service Performance	0.673	0.735	0.660		
Transparency	0.663	0.688	0.584	0.594	
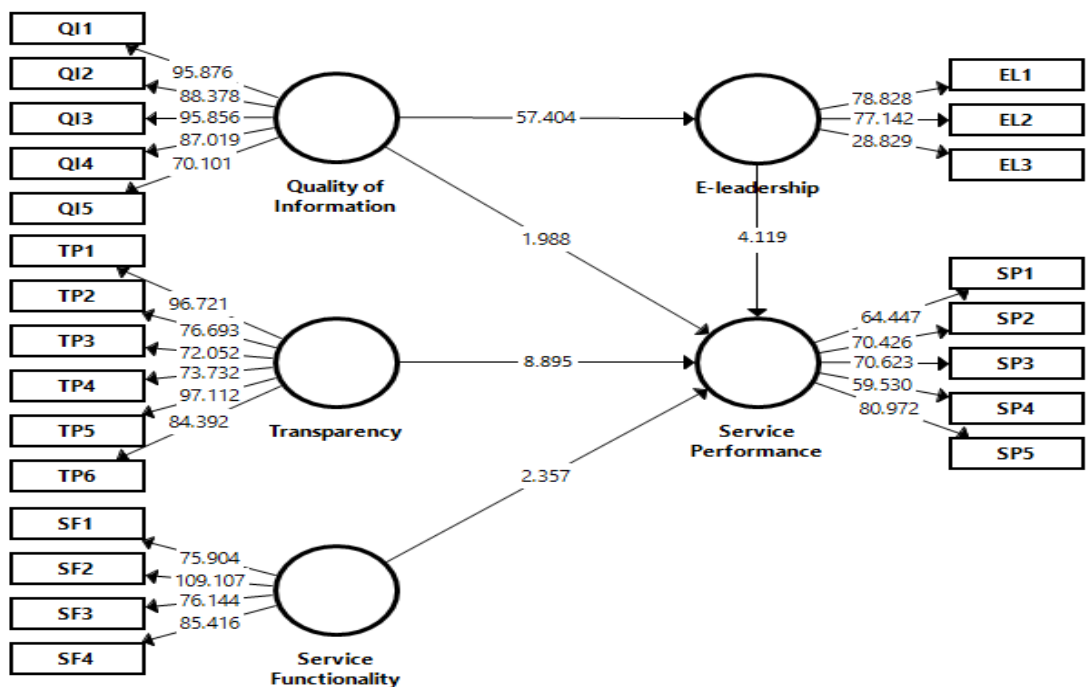
Figure 3. Structural Model

Table 5. Path Coefficients

Hypothesis	Path	β	SD	t	p
1	Quality of Information -> Service Performance	0.352	0.177	1.988	0.047
2	Transparency -> Service Performance	0.752	0.084	8.895	0
3	Service Functionality -> Service Performance	0.287	0.122	2.357	0.019
4	Quality of Information -> E-leadership -> Service Performance	0.650	0.072	8.965	0

The "partial least square – structural equation modeling" findings are reported in Table 5 and Figure 3. The outcomes found that the quality of information positively influences the service performance by e-government in Indonesia, and the first hypothesis is accepted "$t = 1.988$ & $p = 0.047$". Similarly, the outcomes found that the service performance is positively influenced by transparency by e-government in Indonesia, and the second hypothesis is accepted "$t = 8.895$ & $p = 0$". Likewise, the outcomes found that the service performance is positively influenced by service functionality by e-government in Indonesia, and the third hypothesis is accepted "$t = 2.357$ & $p = 0.019$". Quality of information positively influences service performance. Finally, the outcomes found that the quality of information positively influences the service performance by e-government in Indonesia with the mediating role of e-leadership. The fourth hypothesis is accepted "$t = 8.965$ & $p = 0$".

5. DISCUSSION

The findings of this research based on analyzed data are significant. The study reported that H1 is important and service performance of e-government is influenced by the quality of service for the citizens of Indonesia. Lee et al. (2011) emphasized that the public's ability to be pleased with the administration depends on the quality of the information that government agencies deliver to them. Zhang (2013) concluded that wealthy countries have shifted to a digital governance structure, which is essential for high-quality work and information sharing with linked parties. Chohan et al. (2022) concluded that countries that don't give their citizens accurate information must be treated fairly to prosper and achieve sustainability. According to (Li et al., 2020), the public is only content when real-time data is given to them in response to their requests. The research of Chatfield et al. (2013) concluded that all citizens have a right to get accurate information from government agencies regarding their current affairs. That. According to Hariguna et al. (2021), the public values new information available online because they need it for their legitimate strategic planning. Abbas et al. (2022) claimed that the governments of those nations were withholding information from their citizens to avoid giving them an accurate account. Manoharan (2012) concluded that modern firms are moving toward a digital method of information provision since it is the wisest solution to handle these problems. The research Sharma (2015) concluded

that high-quality information sharing is only possible when government departments operate transparently and in the public's best interests. Additionally, Thoppae et al. (2021) stated that the citizens would not be satisfied if there were no checks on the information supplied by the online administrations. This result is compared with the findings of earlier studies conducted in the literature, which also supported this relationship.

The research reported that H2 is accepted and service performance of e-government is influenced by transparency for citizens of Indonesia. Additionally, (Abdulkareem et al., 2022) claimed that the government could function well when people are treated fairly and equally. According to the research by Kang et al. (2010), citizens have a right to access knowledge. It is also essential to the government's ability to function fairly and provide services to other departments. The study by Shah et al. (2022) showed that, for the government to satisfy its constituents, it must provide quality services. However, this quality service performance must be provided fairly. Zhao et al. (2021) concluded that service quality transparency is essential for citizens to be satisfied. Manoharan (2012) also emphasized the importance of having an electronic government system for giving the people of any nation transparent services. Lee et al. (2011) further emphasized that a government department's ability to provide quality service depends on its staff acting fairly and in the interests of the public.

In contrast to other departments that don't operate transparently, the study by Cegarra-Navarro et al. (2012) found that transparently operating departments are more successful. The effective use of e-governance by government departments is, in fact, according to Nam et al. (2022), the key to a service experience. The study by Kaisara et al. (2011) also noted that the e-governance system in developed countries is open and that its residents appear content with how the government operates. Hooda et al. (2022) emphasize the importance of fairness and honesty in delivering better services to the public. Indeed, this result is compared with the findings of earlier studies conducted in the literature, and those findings also supported this relationship.

Thirdly, the research reported that H3 is significant and service performance of e-government is influenced by service functionality for citizens of Indonesia. The study by Weerakkody et al. (2016) showed that fairly delivering services is essential for improved operation and aids in providing fair services to the public. The study by Sayin et al. (2013) showed that the government's efforts to provide enhanced services to the general public should be made in a way that truly satisfies the citizens' mental needs. According to the research by Kašubienė et al. (2007), every government organization's performance would increase if it used the best strategic approach to address the pressing issues. According to Arief et al. (2021), the effectiveness of the government in every sector is essential because, without proper functioning, the public wouldn't be satisfied with how well the government functions. To provide the public

with better services, the traditional government structure and methods of operation of the public departments are being replaced by digital ones, according to the research by Baharon et al. (2017). According to a study by Rasool et al. (2020), information is the greatest source of service delivered and draws those close ties to government agencies. Since the public is the primary stakeholder whose satisfaction is required for improved service performance, Bernhard et al. (2018) found that any organization's purpose should be for the benefit of the general public. Since citizens demand fair treatment from the government, the research by David (2018) highlighted the importance of service performance. Similarly, Roziqin et al. (2022) claimed that government departments with transparent operations and improved functioning could better satisfy their constituents through improved working practices. In this way, this result is compared with the findings of earlier studies conducted in the literature, and those findings also supported this relationship.

Lastly, the research reported that H4 is accepted, and the quality of service with the mediating role of e-leadership for citizens of Indonesia influences the service performance of e-government. Similarly, Manoharan (2012) concluded that the quality of the services has grown to be a crucial aspect since better services are only achievable when government organizations seek to increase the capacity of the services following citizen demands. Sharma (2015) also concluded that e-leadership, which is focused on strategic monitoring of the services, is the greatest method for enhancing service performance. Thoppae et al. (2021) concluded that e-leadership is becoming more important for improving the functioning of government agencies and that leadership plays a crucial role in this. According to the study by Weerakkody et al. (2016), when all the assets are used fairly to offer better services to the public, the quality of information and perfection of e-government are both attainable. The study by Sayin et al. (2013) concluded that e-leadership aids in developing better strategies for the e-government system's operation to transparently offer residents better public services. According to the study by Arief et al. (2021), effective functioning in government departments depends on transparency, which would give modern organizations better employment opportunities for providing services. Mishra et al. (2020) emphasized the need for leadership in every area to oversee the provision of services to the public. According to , observing the services and their modification for fair use may be the best working strategy for the citizens to raise the standard of the services provided by e-leadership. Bernhard et al. (2018) concluded that large organizations are successfully utilizing e-leadership techniques for the public's access to open and high-quality information. No doubt, this is the newly developed relationship in the literature, and the result is compared with the findings of earlier studies conducted in the literature, and those findings also supported this relationship.

6. THEORETICAL AND PRACTICAL IMPLICATIONS

The study has enriched the literature by extending the service performance model with new relations. The study contributed to the literature that the service performance of e-government is influenced by the quality of information critical for the citizens' satisfaction. However, the studies that previously discussed the service performance model haven't discussed this factor significantly. Furthermore, the study enriched the literature that the service performance of the e-government is also influenced by transparency in service. The cross-sectional data collected by the population randomly signified this relationship that wasn't even explored by the earlier studies. In addition, the study added in the literature that the service performance of e-government is influenced by service functionality that wasn't deliberated by the earlier studies. Even the model of service performance developed recently has missed this significant relationship, which is the significant critical contribution of this research. In addition, the research has introduced another significant mediating relationship in the body of knowledge that wasn't discussed earlier in the model of e-government service performance. Accordingly, the study enriched the literature that e-leadership significantly mediates the relationship between e-government quality of information and service performance of e-government. This significant relationship supported by empirical evidence is important in the literature.

In addition, the research has deliberated significant implications for a way forward to service performance improvement of the e-government. The study reported that service performance is critical for the citizens' satisfaction, and the Indonesian government has to take effective actions that are critically important for it. Furthermore, the study reported that the service performance of the government departments could improve citizens' satisfaction in Indonesia. Indeed, the study said that the role of e-leadership is necessary to ensure that quality information is shared with the public with the help of e-government in a successful way because the behavior of the public matters a lot in the delivery of services. Also, the study demonstrated that in the system of e-government, there should be a proper way of citizens' feedback in the service delivery because their feedback can improve the e-government's working and its imperilment. Furthermore, the study asserted that the service performance for the citizens of Indonesia should be transparent because it is the key to delivering fair services with effective strategies to regulate the service behavior of the citizens in a better way in Indonesia. The research also pointed out that service functionality is a key factor in improving the effectiveness of e-government, and the Indonesian government should work on it to provide better services to the people.

7. FUTURE DIRECTIONS

Undeniably, the current study has developed a significant model of service performance that is a worthy addition to the literature. Furthermore, the study has

significant theoretical implications that improve the model of e-government and service performance. Accordingly, the study has empirical findings that are also worthy of enhancing the effectiveness of e-government for service performance for the citizens of Indonesia. However, the current study has some limitations that are reported with the critical future directions to be considered significant by the scholars to contribute further to literature by investigating the new relationships related to the service performance model. Firstly, current research has investigated the mediating role of e-leadership between the quality of information and service performance only. In this way, scholars must determine the mediating position of e-leadership between the transparency of e-government and service performance.

Similarly, scholars are recommended to determine the mediating role of e-leadership between the service functionality of e-government and service performance. In addition, this model has no moderating relationship, but the literature review also disclosed that there could be significant moderators. Thus, the researchers must determine the moderating role of citizens' awareness between the quality of information, transparency, service functionality, and service performance.

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