

Do the people of Jakarta trust Jakarta Kini super application?

Ahmad FAUZIE¹, Eko PRASOJO², Lina Miftahul JANNAH³

Abstract: Research trust in e-government has increased through the decades. Trust in e-government is an important instrument for citizens who intend to use digital services. The aim of this research is to measure and provide an overview of how the level of people trust Jakarta Kini super-application as an e-Government in DKI Jakarta. This study uses a factor score analysis with the Mplus program and OECD method to characterize the trust level of the valid instruments SRMR, CFI, and TLI values. The pre-test results on the validity and reliability of Confirmatory Factor Analysis (CFA) with 1687 respondents. The results of this study indicate that the level of trust of the people in DKI Jakarta is in the medium to high category. It was found based on the factor score value in accordance with the average level of trust in the DKI Jakarta Provincial Government, which was 7.5 out of 10, with a scale of 1 indicating no trust at all, to a scale of 10 indicating full trust from the entire population. This level belongs to the medium to full trust level category. The lesson learned is that the government must take action to increase trust, such as identifying factors affecting the public use of the Jakarta Kini super-application. This study provides a discussion of the findings, and limitations and further proposes potential directions for future research.

Keywords: DKI Jakarta, e-government, Jakarta Kini application, trust.

JEL: C8, R58

DOI: <https://doi.org/10.24818/amp/2023.40-05>

Introduction

DKI Jakarta, as an urban area in Indonesia, has diverse ethnicities, religions and cultures. Farlina (2012) stated that the history of DKI Jakarta makes a trade and technology area that affects urbanization. The high urbanization and mobility rate has caused the swift flow of information in the people of DKI Jakarta. To overcome the swift flow of information, in 2020 the Indonesian government through the Ministry of Communication and Information is promoting the six basic Smart City

¹ Doctoral Candidate, Universitas Indonesia, Jawa Barat, Indonesia, e-mail: ahmad.fauzie01@ui.ac.id, ORCID: 0000-0002-5853-9098.

² Professor, Universitas Indonesia, Jawa Barat, Indonesia, e-mail: prasajo1@ui.ac.id, ORCID: 0000-0002-3904-0814

³ Doctoral, Universitas Indonesia, Jawa Barat, Indonesia, e-mail: miftahul@ui.ac.id, ORCID: 0000-0002-0827-0369

pillars, namely: Smart Governance, Smart Branding, Smart Economy, Smart Society, Smart Environment and Smart Living, to achieve the vision of integrating information and communication technology in city management in DKI Jakarta. One of e-government services in DKI Jakarta is the Jakarta Kini super-application.

JAKI (Jakarta Kini) was developed as a super-application by the DKI Jakarta provincial government in September 2019. It plays an important role in one stop service, mobile first, integration and citizen-oriented. JAKI integrates various services belonging to the Local Government, Central Government, and Business Actors (such as start-up) into one digital platform. The digital platform continues to be carried out to the Covid-19 case with the issuance of DKI Jakarta Regulations, namely Number 2 of 2020 concerning Corona Virus Disease 2019 Mitigation, Number 3 of 2021 concerning Implementation Regulations and Governor and Instruction Number 28 of 2021 concerning Accelerating the Implementation of Digital Transformation in DKI Jakarta. This is a new normal era solution and one of the government's strategies in minimizing the spread of the virus with Large-Scale Social Restrictions (PSBB).

However, despite the convenience of using the JAKI super-application, the success of JAKI is not without its flaws. Based on information about users of super-application JAKI (Jakarta Kini) from Jakarta Smart City (November 24, 2021), it is known that approximately 2,640,745 users have downloaded this application, with active users at 51,842 users, or only 1.96% of the total all users actively use the JAKI super-application (Jakarta.go.id, accessed November 24, 2021, at 10:00). The number of downloaders does not mean that there are many active users of the application. According to Sari (2021), the imbalance between the number of downloaders and the number of active users is due to the less effective communication of the DKI Jakarta Provincial Government regarding the usefulness of JAKI.

According to Pritchard (2017), one possible way to retain e-Government service users is through Trust. Lack of trust can be a failure of e-Government (Lee & Levy, 2014). These problems arise in society not without reason given the unique open and impersonal nature of the internet which has an impact on e-Government that supposedly has the potential to increase transparency, responsiveness and government accountability (Bélanger & Carter, 2008).

Based on these factual problems, the JAKI super-application has not yet reached the maximum level in the aspect of trust even though the JAKI application has reached the level of success of the e-Government system (Andriyanto et al., 2021). To find out the condition of the trust, researchers will measure the quality of the JAKI application through the opinions of the public by conducting a survey. According to Erumban & de Jong (2006), the decision to adopt e-Government is subjective, depending on the attitude of local people to organizations. Therefore, this article will perform the research level of trust in e-government "Jakarta Kini super-application" in DKI Jakarta, as capital city of Indonesia. The author is interested in further research related to how is the level of trust in Jakarta Kini super-application in DKI Jakarta?

1. Literature Review

E-government is one of the technologies to improve government operations by covering three services, namely e-service, e-administration, and e-participation (Curtin, 2007). According to Grigalashvili (2022), the definition of e-Government refers to the United Nation, namely "Online government services" being the electronic exchange of information and services with citizens, businesses and other government devices. By this definition, the e-Government process uses technology, information, and communication to simplify the government to achieve public goals in a digital way, to achieve common goals of e-Government, the government agencies. The government needs to build trust that can increase users of the JAKI super-application. The failure occurred in developed countries was caused by a lack of trust even though they spent a lot of capital to build e-Government (Holmes, 2001).

The concept of trust has been studied in the fields of social science, business, philosophy, and psychology which later became an important issue in the field of Administrative Science. Research conducted by Avgerou et al. (2009) states that trust in e-Government focuses on the work of technology, information and communication carried out by government agencies in delivering services (Bélanger & Carter, 2005). Trust can reduce uncertainty, social complexity, moral violence, vulnerability and can help reduce transaction costs as a form of efficiency. In other words, trust is an important part of motivating others and it is necessary to avoid actions that violate trust in order to achieve common goals.

Research trust in e-government has increased through the decades and has received scholarly attention (Carter & Bélanger, 2005; Ho, 2002; Layne & Lee, 2001). Unlike other research, e-government issues reveal a modern study to attract various disciplines' attention; in professional and government as well as to citizen revenue (Albeshar & Stone, 2016; Al-Shafi & Weerakkody, 2009; Norris, 2010); to enhance democracy and to process modernization (Fang, 2002). Furthermore, e-government researches are important for assessing citizen trust through the adoption of digital services (Alharbi & Kang, 2014; Alsmadi & Abu-Shanab, 2016; Gupta et al., 2016). The concept of trust is defined in Administrative Sciences as a central element of social interaction that affects the degree and form of interaction in society. The concept of trust can also be believed to be a characteristic of a person that reflects the expectation of credibility from the influence of others (Paliszkievicz & Chen, 2021; Rotter, 1967; Mayer, 1995). Thus, trust can be considered as the fundamental success of a relationship, since it can fulfill many roles and refers to many functions, and thus offers various benefits (Sankowska, 2011), such as increasing loyalty (Vlachos et al., 2009) and achieving common goals (Czakoń, 2007). From these various definitions, trust is a process of social interaction that produces confidence to take action as the basis for organizational success.

Related to the concept of trust in e-government, there are certain aspects of trust in e-government; for example, lack of trust in e-government services transactions (Welch et al., 2005), e-government as an accountable, transparent, and responsive

system (Holden et al., 2003; Tolbert & Mossberger, 2006). Also, the scope of this research is limited to certain aspects of cybersecurity factors in e-government (K. J. Smith et al., 2021).

Based on that consideration, it is understandable to identify the condition of trust in Jakarta Kini super-application as e-Government, especially in developing countries like Indonesia. According to Ordiyasa (2015) and Heeks (2005), the lack of public knowledge regarding the targets and benefits of e-Government is based on the culture of people who do not understand the current situation. Therefore, there is a potential for e-Government failure in achieving its main target (UNDESA, 2001). Therefore, the failure that occurs in developing countries like Indonesia, is not just a matter of technological factors, but there is still a gap between the realities that contemporary society is facing.

2. Research Method

This is quantitative research to test hypotheses and validate a theory. The main source is the questionnaire to analyze the state of trust level in DKI Jakarta with factor scores using the M-Plus program and descriptive analysis techniques. The subjects in this study were 1687 respondents from 10,609,680 based on Statistics Center DKI Jakarta (2021), consisting of citizens and public servants of the DKI Jakarta. Non-parametric data from this population data. The target sample population that meets the criteria is (1) at least 18 years old, (2) have used or is still using the JAKI super-application in the past year. The minimum number of samples is determined by the Slovin formula $n = \frac{N}{1+Ne^2}$. The sample was $399.98 \approx 400$ for citizens and $397.3 \approx 398$ for public servants of DKI Jakarta with a 95% confidence level. The sample division is based on the city/district for the DKI citizen sample group, while the public servants are divided based on their position including staff, functional, and the echelon level II, III, and IV which shows representation. The sampling technique was carried out by non-probability sampling, i.e. purposive sampling. The profile of respondents is presented in Table 1.

Table 1. Respondents' Profiles

Category		Percentage
Gender	Male	54.36%
	Female	45.64%
Birth Year	Gen-Z	0.30%
	Millennial	36.10%
	Gen-X	35.68%
	Baby Boomers	27.92%
Domicile	West Jakarta	8.00%
	Central Jakarta	3.68%
	South Jakarta	68.35%
	East Jakarta	8.54%
	North Jakarta	5.33%

Do the people of Jakarta Trust Jakarta Kini super-application?

Category		Percentage
	Kepulauan Seribu	0.36%
	Outside DKI Jakarta	5.75%
Internet Experience	< 3 Years	30.05%
	3- 10 Years	43.75%
	> 10 Years	26.20%
Education	Primary Education	15.17%
	Secondary Education	52.82%
	Upper Education	32.01%
Occupation	Public Servants	
	Structural	13.89%
	Functional	58.33%
	Staff	27.78%
	Citizens	
	Own Business	15.01%
	Laborer/Employee	50.37%
	Non-agricultural Freelancers	2.79%
	Not in the labor force	31.83%
	Income per month	Low (< Rp1.000.000)
Medium (Rp1.000.000 – Rp3.000.000)		18.73%
High (Rp3.000.000 – Rp5.000.000)		43.75%
Very high (> Rp5.000.000)		20.33%

Source: Authors' contribution

Furthermore, the research questionnaire was close-ended using a 5 Likert scale based on research (Alowisheq et al., 2017; Colesca, 2009; Li & Xue, 2021; OECD, 2016) stating that trust is the belief of a person in relation to an institution will act consistently with positive expectations of what they have done. It was tested as a pre-survey condition using the Confirmatory Factor Analysis method to test the validity and reliability of the instrument with Mplus program. In the guide to measuring trust published according to the OECD method, trust levels can answer whether trust in the population is low or high (OECD Comparative Study, 2016). They also mention that the level can be indicated by the frequency of the category, the proportion of a threshold, or the central tendency value. Calculation factor scores with the Mplus program with the type of score used is the summation of raw scores, since using raw scores leads to underestimation (Radde, 2015). The operationalization of concept used in this study is Individual Behavior (IB), Service (S), Transaction (T), and Content (C) shows = 195.662; p-value <0.05, RMSEA = 0.065 [90% C.I. 0.054 - 0.076; prob.: 0.014], CFI = 0.980, and TLI = 0.975. The model fit indices from the criteria RMSEA, CFI, TLI, and SRMR are classified as fit.

To facilitate the study, the researcher decided to divide it into three categories: low, medium, and high. The cut-off point of each category was based on the mean and standard deviation of the normal curve. The categorization of trust levels are low

when $X < \bar{X} - 1SD$, medium when $\bar{X} - 1SD < X < \bar{X} + 1SD$, and high when $X > \bar{X} + 1SD$. Where X is the individual factor score, \bar{X} is the mean of factor scores, and SD is the standard deviation of factor scores. The normal curve is a frequency distribution that is bell-shaped and symmetrical (Crocker & Algina, 1986). Furthermore, the chi-square test of independence is one of the non-parametric statistical tests that is often used to test hypotheses on two categorical variables. The chi-square test of independence not only provides information about the differences observed, but also provides detailed information about which categories explain the differences found. The chi-square test of independence was used to identify the relationship between the categorization of trust levels and the citizen domicile category or the public servant's position category.

3. Result and Discussion

Data analysis is divided into three stages. The first stage is the validity and reliability test of the instrument. The second stage is the factor score test to get the trust level and the third stage is the chi-square test of independence. In this study, researchers conducted an online survey with Google Form to 1,687 JAKI super-application users with details of 468 participants of public servants and 1,219 participants of citizens in DKI Jakarta to examine the use of these services based on the categories of gender, age, occupation, public servants position, monthly income, internet experience, latest education and domicile of participants. The respondent's profile is listed in Table 1.

3.1. Confirmatory Factor Analysis for Validity and Reliability Tests

In the first order, validity test results consisting of 23 valid items can be used to determine trust conditions, namely the Individual Behaviour (IB), Service (S), Transaction (T), and Content (C) factors show = 1117.863; p-value <0.05, RMSEA = 0.099 [90% C.I. 0.094 - 0.105; prob.: 0], CFI = 0.911, TLI = 0.900, and SRMR = 0.055. The model fit index from the X^2 , RMSEA, and CFI criteria is classified as not fit. It means these items show valid, but the e-Government trust condition model does not fit. Based on this, the second-order model was modified by eliminating nine items to get a model with CFI and SRMR fit.

The value of factor loadings on the 23 items is valid, but the trust in the e-Government model does not fit. Based on this, the second-order model was modified by eliminating nine items to obtain a model with CFI and SRMR fit according to Table 2.

Table 2. Second order model of public trust in e-government

Second order model of trust condition			
<i>Chi-square</i>	Value	195.662	
	p-value	0	Non fit
RMSEA	Estimate	0.065	Fit

Do the people of Jakarta Trust Jakarta Kini super-application?

Second order model of trust condition			
	90% C.I	0.054 – 0.076	Non fit
	Prob.	0.014	Non fit
CFI		0.98	Fit
TLI		0.975	Fit
SRMR		0.024	Fit

Source: Authors' contribution

The results of the second order validity test, consisting of 14 valid items used to measure trust in e-Government conditions, namely the Individual Behaviour (IB), Service (S), Transaction (T), and Content (C) factors, show = 195.662; p-value < 0.05, RMSEA = 0.065 [90% C.I. 0.054 - 0.076; probability: 0.014], CFI = 0.980, and TLI = 0.975. The model fit indices from the estimation criteria RMSEA, CFI, TLI, and SRMR are classified as fit.

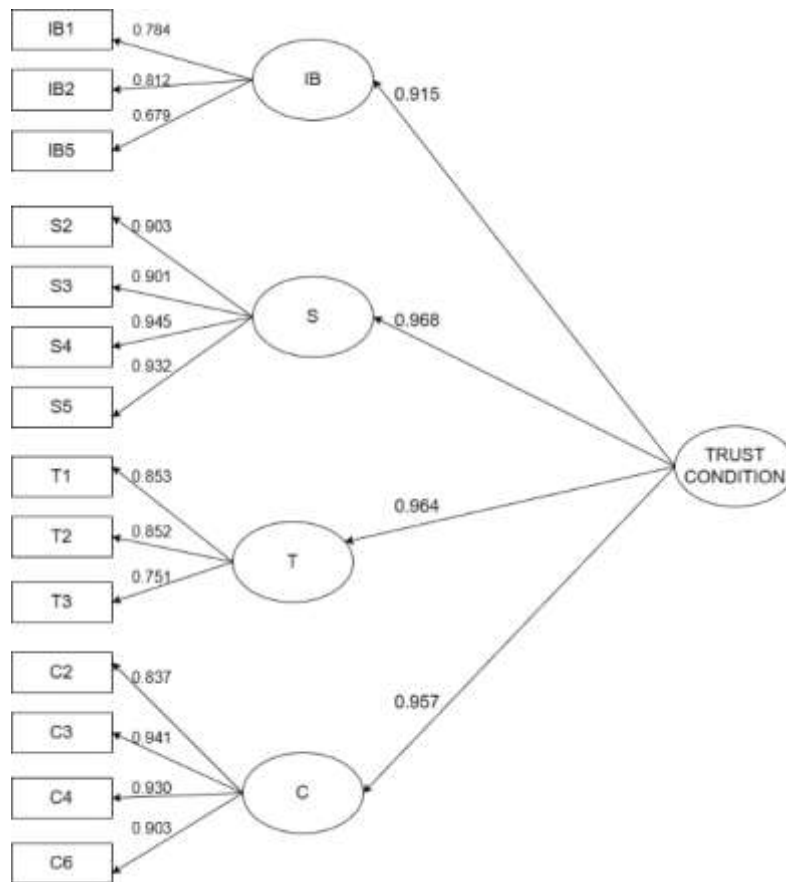
Table 3. Factor loading trust in e-government condition

Item	Factor Loading				S.E.	T	Two-tailed P value	Description
	IB	S	T	CI				
IB1	0.784				0.024	33.312	0	Valid
IB2	0.812				0.022	37.326	0	Valid
IB5	0.679				0.03	22.272	0	Valid
S2		0.903			0.01	88.024	0	Valid
S3		0.901			0.01	86.733	0	Valid
S4		0.945			0.007	141.919	0	Valid
S5		0.932			0.008	120.121	0	Valid
T1			0.853		0.016	52.043	0	Valid
T2			0.852		0.016	51.845	0	Valid
T3			0.751		0.024	31.328	0	Valid
C2				0.837	0.016	52.193	0	Valid
C3				0.941	0.007	130.787	0	Valid
C4				0.93	0.008	115.066	0	Valid
C6				0.903	0.01	87.069	0	Valid

Source: Authors' contribution

Table 3 shows the value of factor loadings on 14 items of trust in e-Government conditions. These items indicate validity and model fit. Thus, the factor model of trust in e-Government conditions with four factors and 14 items is acceptable and significantly measures trust in e-Government conditions.

Figure 1. Trust in e-government model validity test results



Source: Authors' contribution

Figure 1 shows the results of the second-order trust model for e-Government validity test results. The second-order model produces a fit model and valid items. The model consists of 4 factors, namely IB, S, T, and C. IB factor consists of four items, namely IB1, IB2, IB5, and S factor consists of four items, namely S2, S3, S4, and S5. The T factor consists of three items, namely T1, T2, and T3, and the C factor consists of four items, namely C2, C3, C4, and C6.

Then, in this research, the reliability test is used to calculate Cronbach's Alpha coefficient. The alpha coefficient can also be used to determine if the scale used is reliable. If the alpha coefficient is above 0.6, the scale shows an acceptable level of reliability (Moss et al., 1998; Zalma et al., 2015). This study uses the alpha coefficient range referring to Hinton et al. (2014) for the interpretation, namely: 0.90 is Excellent reliability, 0.7 - 0.90 is High reliability, 0.5 - 0.70 is Moderate reliability and ≤ 0.50 is for the Low reliability category.

Table 4. Reliability Test of Trust of e-Government Condition

Scale	Alpha Coefficient	Category
Trust Condition	0.966	<i>Excellent reliability</i>
Individual Behaviour	0.792	<i>High reliability</i>
Service	0.956	<i>Excellent reliability</i>
Transaction	0.856	<i>High reliability</i>
Content	0.943	<i>Excellent reliability</i>

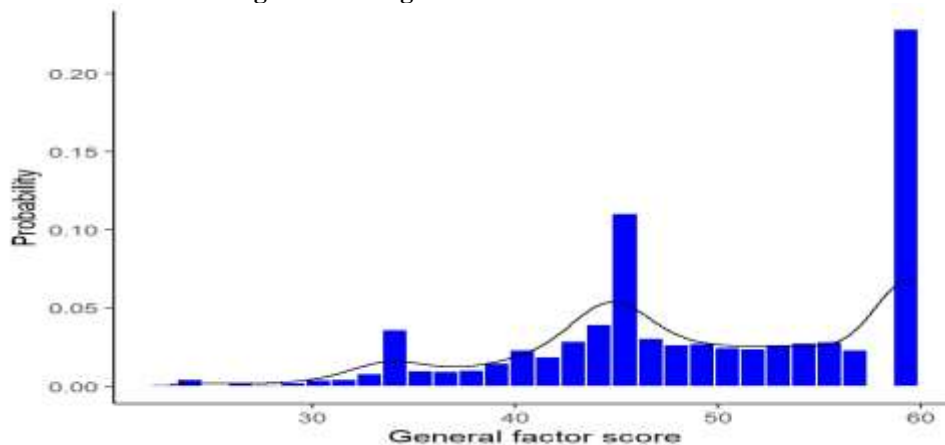
Source: Authors' contribution

The results of the reliability test in Table 4 show that the trust in the e-Government condition scale used has two alpha coefficient trust conditions that fall into the *high-reliability* category, such as Individual Behaviour (IB) and Transactions (T). For the other two trust conditions, the alpha coefficient falls into the *excellent reliability* category, namely Service (S) and Content (C). Thus, the scale used shows acceptable reliability and can be used. As long as the scale used is valid to measure the intended construct, the high and low alpha coefficients are not a problem (Nunnally & Bernstein, 1994; Schmitt, 1996). A demonstrably valid scale is certainly reliable, but a reliable scale is not necessarily valid for measuring a construct (Miller, 1995). This shows that the questionnaire is a reliable measurement tool (Colesca, 2009).

3.2. Discussion

3.2.1. Analysis of trust in e-government conditions in DKI Jakarta

Figure 2. Histogram of General Factor Score



Source: Authors' contribution

After measuring the condition of trust with validity and reliability tests, this study measures the condition of trust using items that have proven to be valid in the validity test. The trust score is obtained in a *factor score* with statistical tests, namely Mean:

49.40 with median: 49.04, standard deviation (SD): 8.74, lowest value: 22.96, and the highest value is 59.53 (Figure 2). The mean and median values in the distribution are different. So the distribution is not symmetrical. If the mean and median have the same value, the distribution is symmetric (Aron et al., 2013). The mode in this distribution is at the highest and rightmost point, 59.53. Thus, the trust variable has a negatively skewed distribution. This distribution has a longer tail on the left and is centred on the right. This means that the general trust level category falls less in the low category and most in the medium to high category. Thus, the frequency of the general trust category based on the high category is 486 (28.81%), the medium category is 938 (55.60%), and the low category is 263 (15.59%) (Table 5).

Table 5. General Trust Categories

Category	High	Medium	Low
Total	486 (28.81%)	938 (55.60%)	263 (15.59%)

Source: Authors' contribution

The general trust category based on the high category is 486 (28.81%), the medium category is 938 (55.60%), and the low category is 263 (15.59%). The trust category generally has a high percentage at the medium trust level, then at the high trust level and finally at the low trust level. Based on Figure 1, it can be seen that the distribution of the general trust level category is centred on the right, meaning that the general trust level category is mostly in the medium to high category and has a longer tail on the left, meaning that the general trust level category is less in the low category. In conclusion, the general trust category based on *the factor score value* is in accordance with the average level of trust in the DKI Jakarta Provincial Government of 7.5 out of 10, with a scale of 1 indicating no trust at all, to a scale of 10 indicating full trust from the entire community. This value is in the medium to full trust level. This is consistent with the chi-square test of independence level of trust in general and the internet experience has a p-value of 0.182, which is not significant at the 95% level of trust so H0 is not rejected, meaning that people's internet experience on their choice of e-government trust level category is mutually independent. According to Maggio et al (2001) in (Monggilo, 2016), the internet is inhabited by two groups, the interacting group, which uses the full capacity of the internet, and the interacted group, which is proportional to the use of the internet limited to certain choices, so that the online behaviour of this group cannot be easily influenced. The internet experience of the people in this study belongs to the interacted group, a group that does not easily influence their decisions regarding e-Government trust levels (low, medium, and high). This means that the longer a person uses the internet; the sense of privacy arises in a person who continues to use the internet. A sense of privacy is one of the determinants of trust in the e-Government context (Khan et al., 2021), so people already know the risks of using the internet, especially in relation to data security. Social media, for example, is the most popular medium to interact and get

Do the people of Jakarta Trust Jakarta Kini super-application?

information or news which is more concerned about privacy than other electronic services (Xin et al., 2012).

Table 6. General Trust Category based on Internet Experience

Category		High	Medium	Low
Internet experience	Less than 3 years	77 (15.19%)	274 (54.04%)	156 (30.77%)
	3 – 10 years	103 (13.96%)	424 (57.45%)	211 (28.59%)
	More than 10 years	83 (18.78%)	240 (54.30%)	119 (26.92%)
	Total	263 (15.59%)	938 (55.60%)	486 (28.81%)

Source: Authors' contribution

Based on the results of the above analysis of trust in e-Government, in general, individuals consisting of citizens and public servants in DKI Jakarta who have internet experience trust JAKI as a super application of DKI Jakarta e-Government. They think JAKI is important because it can fulfil the needs of the community, such as information sources and has useful functions. Users can monitor different types of information, such as vaccination lists, vaccination locations, food prices, transportation and complaint reports in one application. Although they interact relatively with the internet, the need for JAKI is important.

3.2.2. Analysis of citizen trust in e-government condition

Table 7. Citizen trust category

Category		High	Medium	Low
Citizen	West Jakarta	28 (27.18%)	55 (53.40%)	20 (19.42%)
	Central Jakarta	9 (21.95%)	28 (68.29%)	4 (9.76%)
	South Jakarta	258 (29.15%)	489 (55.25%)	138 (15.59%)
	West Jakarta	45 (38.79%)	52 (44.83%)	19 (16.38%)
	North Jakarta Utara and Kepulauan Seribu	29 (39.19%)	28 (37.84%)	17 (22.97%)
	Total	369 (30.27%)	652 (53.49%)	198 (16.24%)

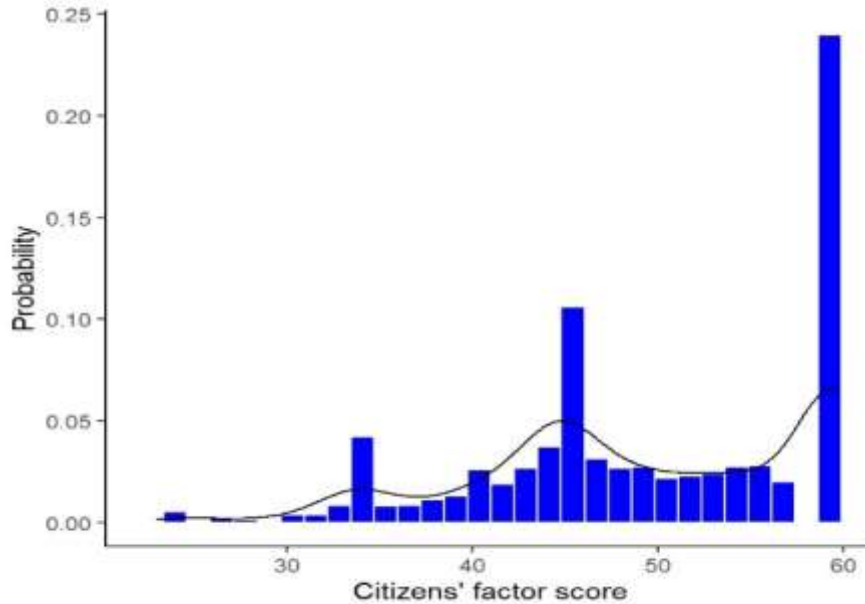
Source: Authors' contribution

The condition of citizen trust in each region in DKI Jakarta province has different levels (Table 7). It explains the first rank is the medium level, the second is a high level and the last is the low level of trust. These differences are influenced by the educational level and age condition in each region. And in general, the respondent sample mostly has a secondary education level and the age is in the millennial to generation X category.

These results prove that the chi-square test of independence at the level of citizen trust and citizen domicile in West Jakarta, Central Jakarta, South Jakarta, East Jakarta, and North Jakarta and Kepulauan Seribu has a p-value of 0.025 significant at the 95% trust level so reject H₀, meaning that there is an independent relationship between the level of citizen trust and citizen domicile in DKI Jakarta.

Then for the score results based on the statistical factor score test, the condition of citizen trust is obtained, namely Mean: 49.43 with median: 49.28, standard deviation (SD): 8.91, the lowest score: 22.96, and the highest score is 59.53 (Figure 3). The mean and median values in the distribution are different, so the distribution is not symmetrical. If the mean and median have the same value, the distribution is symmetric (Aron et al., 2013). The mode in this distribution is at the highest and rightmost point, 59.53. Thus, the trust variable has a negatively skewed distribution. This distribution has a longer tail to the left and is centred on the right, indicating that the level of citizen trust in e-Government tends to be at a medium to the high level, and has a low level with a small amount.

Figure 3. Histogram of citizen factor score



Source: Authors' contribution

3.2.3. Analysis of public servant's trust of e-government condition

Table 8. Public servants trust category

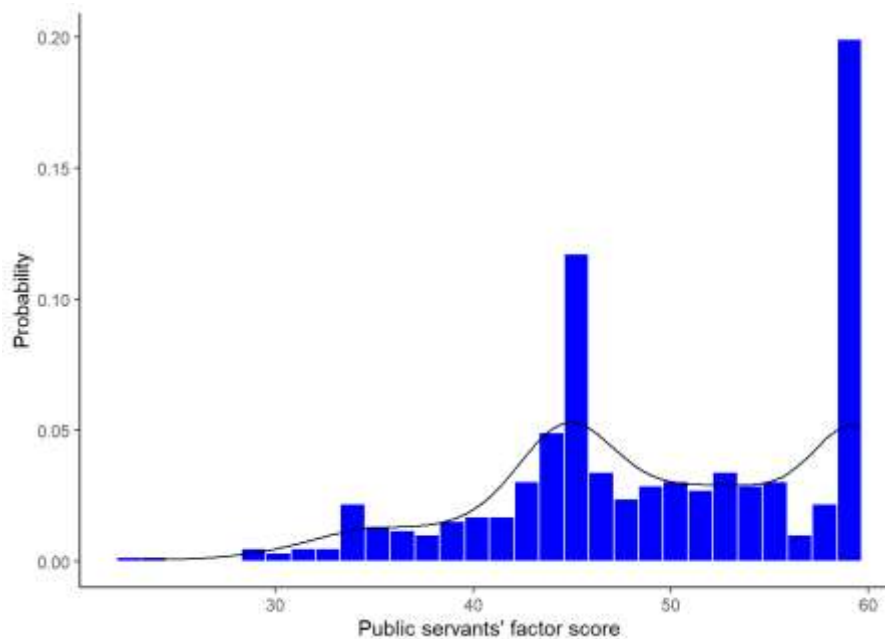
Category		High	Medium	Low
Public Servants	Structural	22 (33.85%)	38 (58.46%)	5 (7.69%)
	Functional	63 (23.08%)	165 (60.44%)	45 (16.48%)
	Staff	32 (24.62%)	83 (63.85%)	15 (11.54%)
	Total	117 (25%)	286 (61.11%)	65 (13.89%)

Source: Authors' contribution

For public servants trust conditions, most are in the medium to high category. The low category was 65 or 13.89%, the medium category was 286 or 61.11%, and the

high category was 117 or 25%. The condition of public servants' trust has different levels for each position. It can be seen in Table 8 that the public servants position level is divided into several categories, namely, Structural, Functional, and Staff. The chi-square test of independence between the public servants trust level and the public servant's category has a p-value of 0.175, which is not significant at the 95% trust level, so H_0 is not rejected. It means there is no relationship between the public servant's class category in DKI Jakarta and their choice of e-Government trust level. However, an interesting phenomenon emerges in the structural ranks, the classification of the order of public servant's positions with the highest level of trust is occupied by the structural ranks. This condition is caused by the level of education of structural level public servants, at least they have studied at the higher educational level or university levels and at the structural level of public servants have a low level of education in the primary and secondary categories. The data on the results of the respondent survey on the public servants' trust level research are in Figure 4.

Figure 4. Histogram of public servant factor score



Source: Authors' contribution

The trust score of public servants is obtained in trust condition factor score with statistical tests, namely Mean: 49.32 with median: 48.75, standard deviation (SD): 8.30, lowest value: 23.1, and the highest value is 59.53 (Graphic 3). The mean and median values in the distribution are different so the distribution is not symmetrical. If the mean and median have the same value, the distribution is symmetric (Aron et al., 2013). The mode in this distribution is at the highest and rightmost point, is 59.53.

Thus, the trust variable has a negatively skewed distribution. This distribution has a longer tail on the left and is centred on the right. Nevertheless, the analysis of public servants' trust conditions is generally at a medium level tending to a high level, although there are no significant differences between high and low levels. Therefore, the condition of trust can change at any time and go to a low level.

4. Conclusions

Based on the variable analysis in this study, the researchers offer conclusions related to e-Government Trust in DKI Jakarta. All factors in this study, namely domicile, age, internet experience, occupation, position and level of education of individuals as individual characteristics that can influence the condition of Trust in e-Government in DKI Jakarta. The condition of trust is also influenced by determinant factors such as individual behaviour (IB), services (S), transactions (T) and content (C). As a result, the study shows a difference in the frequency of trust in e-Government. The trust level of most citizens and public servants is in the medium to high trust category and few are in the low trust category. The diverse results of trust are due to the fact that trust is influenced by factors of internet experience, occupation, and individual education level as individual characteristics.

First, the internet experience factor, increasing the frequency of access and use of the internet, will improve understanding of the potential use of the benefits of technology, especially in obtaining and disseminating information, online transactions, and interactive communication. Individuals with an average internet experience (3-10 years) have more knowledge and experience about the internet, which leads to greater trust in using the internet, and can support a positive impact for government agencies in trust in e-Government. Second, occupations concerning activities or activities based on economic values are cited as a factor that can indirectly influence citizens' trust, particularly towards the government. In contrast to the level of citizens who are not concerned with the level of income equality, but are more concerned with the perceived convenience. Third, the level of education is significantly related to improving the quality of human resources. This means that the higher an individual's level of education, the more likely it is that he or she can easily keep up with scientific developments and absorb technological advances.

This is the main challenge for the government in the context of e-Government Trust conditions, namely the level of education of citizens to participate in e-Government, which can lead to a gap in the use of information technology between educated and non-educated citizens (digital divide). Therefore, the government must pay attention and give additional support to citizens with low education in the development and equal access to e-Government services. External factors such as the fulfilment of citizens' needs for DKI Jakarta Provincial Government programs also influence citizens to believe in e-Government.

Due to the limitations of study, first, as a census, this study used population data, but the number of returned questionnaires was only 70%, as the questionnaires were voluntary. Secondly, this trust-related research is limited to individual characteristic

variables, namely domicile, age, internet experience, occupation, position and education level of the individual. Other aspects of technology, leadership, culture are not considered and other variables that may have a major influence on e-Government trust. Using the Mplus program, the suitability of the research model was determined based on the factor score and the chi-square test of independence. Other measurement tools such as OEDC are needed to rank the level of trust (high, medium, low) and report the level either through the frequency of the category, the proportion at a threshold, or the central tendency value. Finally, it is necessary to examine external factors such as meeting the needs of citizens for DKI Jakarta Provincial Government programs as well as influencing citizens to trust in e-Government.

Conflict of Interest Statement

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict. Therefore, this paper is part of the dissertation of the first author for his doctoral program which is also absent from any conflict of interest.

Author Contributions

The authors listed have made a substantial, direct, and intellectual contribution to the work as follows: study conception and design, data collection, analysis and interpretation of results: Fauzie; supervision and advisor: Prasajo and Jannah; draft manuscript preparation: Fauzie, Prasajo, and Jannah. All authors reviewed the results and approved the final version of the manuscript for publication.

References

- Abu-Shanab, E. (2014). Antecedents of trust in e-government services: An empirical test in Jordan. *Transforming Government: People, Process and Policy*, 8(4), 480-499. <https://doi.org/10.1108/TG-08-2013-0027>
- Alowisheq, A., Alrajebah, N., Alrumikhani, A., Al-Shamrani, G., Shaabi, M., Al-Nufaisi, M., Alnasser, A., and Alhumoud, S. (2017). Investigating the relationship between trust and sentiment agreement in arab twitter users. *Lecture Notes in Computer Science (Including Subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, 10283 LNCS, 236–245. https://doi.org/10.1007/978-3-319-58562-8_19/FIGURES/3
- Alzahrani, L., Al-Karaghoul, W., and Weerakkody, V. (2017). Analysing the critical factors influencing trust in e-government adoption from citizens' perspective: A systematic review and a conceptual framework. *International Business Review*, 26(1), 164-175. <https://doi.org/10.1016/j.ibusrev.2016.06.004>
- Andriyanto, D., Said, F., Titiani, F., and Erni, E. (2021). Analisis Kesuksesan Aplikasi Jakarta Kini (JAKI) Menggunakan Model Delone and McLean. *Paradigma - Jurnal Komputer Dan Informatika*, 23(1), 43-48. <https://doi.org/10.31294/p.v23i1.10018>

- Bélanger, F., Carter, L. (2005). Trust and risk in e-government adoption. *Association for Information Systems - 11th Americas Conference on Information Systems, AMCIS 2005: A Conference on a Human Scale*, 2(3), 735-744.
- Bélanger, F., Carter, L. (2008). Trust and risk in e-government adoption. *Journal of Strategic Information Systems*, 17(2), 165-176. <https://doi.org/10.1016/j.jsis.2007.12.002>
- Colesca, S. E. (2009). Understanding Trust in e-Government. *Engineering Economics*, 63(3), 7-15.
- Crocker, L., Algina, J. (1986). *Introduction to Classical and Modern Test Theory*.
- Curtin, G. G. (2007). E-government. *Encyclopedia of Political Communications "E-Governance"*. http://www.usc.edu/schools/sppd/bedrosian/private/docs/encyclopedia_of_political_communications.pdf
- Erumban, A. A., de Jong, S. B. (2006). Cross-country differences in ICT adoption: A consequence of Culture? *Journal of World Business*, 41(4), 302-314. <https://doi.org/10.1016/j.jwb.2006.08.005>
- Farlina, N. (2012). Representasi Identitas Betawi dalam Forum Betawi Rempug. *Tesis*, 1-84. https://repository.uinjkt.ac.id/dspace/bitstream/123456789/39155/2/NINA_FARLINA.pdf
- Grigalashvili, V. (2022). E-government and E-governance: Various or Multifarious Concepts. *International Journal of Scientific and Management Research*, 05(01), 183-196. <https://doi.org/10.37502/ijsmr.2022.5111>
- Heeks, R. (2005). e-Government as a carrier of context. *Journal of Public Policy*, 25(1), 51-74. <https://doi.org/10.1017/S0143814X05000206>
- Holmes, D. (2001). *EGov EBusiness Strategies for government* (First publ). Nicholas Brealey Publishing.
- Khan, S., Rahim, N. Z., and Maarop, N. (2020). A systematic literature review and a proposed model on antecedents of trust to use social media for e-government services. *International Journal of ADVANCED AND APPLIED SCIENCES*, 7(2), 44-56. <https://doi.org/10.21833/ijaas.2020.02.007>
- Khan, S., Umer, R., Umer, S., and Naqvi, S. (2021). Antecedents of trust in using social media for E-government services: An empirical study in Pakistan. *Technology in Society*, 64, 101400. <https://doi.org/10.1016/j.techsoc.2020.101400>
- Lau, T. Y., Wang, K., and Atkin, D. (2008). Public Service in the Information Age. *Media Asia*, 35(3), 190-197. <https://doi.org/10.1080/01296612.2008.11726883>
- Lee, A., Levy, Y. (2014). The effect of information quality on trust in e-government systems' transformation. *Transforming Government: People, Process and Policy*, 8(1), 76-100. <https://doi.org/10.1108/TG-10-2012-0011>
- Li, W., Xue, L. (2021). Analyzing the critical factors influencing post-use trust and its impact on Citizens' continuous-use intention of E-Government: Evidence from Chinese municipalities. *Sustainability (Switzerland)*, 13(14). <https://doi.org/10.3390/su13147698>
- Liu, Y., Chen, D., and Sun, J. (2011). A trustworthy e-learning based on trust and quality evaluation. *2011 International Conference on E-Business and E-Government, ICEE2011 - Proceedings*, 1038-1041. <https://doi.org/10.1109/ICEBEG.2011.5881690>
- Mayer, R. C., Schoorman, F. D., and Davis, J. H. (1995). An integrative model of organizational trust: Past, present, and future. *Academy of Management Review*, 20(3), 709-734.

- Monggilo, Z. M. (2016). Kajian Literatur Tentang Tipologi Perilaku Berinternet Generasi Muda Indonesia. *Jurnal Ilmu Komunikasi*, 13(1). <https://doi.org/https://doi.org/10.24002/jik.v13i1.599>
- Mousavi, S. A., Pimenidis, E., and Jahankhani, H. (2008). Cultivating trust - An electronic-government development model for addressing the needs of developing countries. *International Journal of Electronic Security and Digital Forensics*, 1(3), 233-248. <https://doi.org/10.1504/IJESDF.2008.020942>
- OECD Comparative Study. (2016). Digital Government Strategies for Transforming Public Services in the Welfare Areas. *Oecd*, 63. <http://www.oecd.org/gov/digital-government/Digital-Government-Strategies-Welfare-Service.pdf>
- Ordiyasa, I. W. (2015). Failure of the e-gov implementation. *Journal Seminar Nasional Informatika*, 3(1), 6-8.
- Paliszkievicz, J., Chen, K. (2021). Trust, Organizations and the Digital Economy: Theory and Practice. In *Trust, Organizations and the Digital Economy: Theory and Practice*. <https://doi.org/10.4324/9781003165965>
- Panthee, M., Kumar Sharma, Y. (2019). Review of E-Government Implementation International Journal of Recent Research Aspects Review of E-Government Implementation. *International Journal of Recent Research Aspects*, 6, 26-30.
- Pribadi, et.al., U. (2021). Factors Affecting Trust in E-Government. *Journal of Government and Civil Society*, 5(2). <https://doi.org/10.31000/jgcs.v5i2.4848>
- Pritchard, T. A. (2017). *Trust and e-Government Success in Central Virginia: An Empirical Analysis*.
- Radde, H. A. (2015). Kesalahan Pengukuran dalam koefisien regresi linear: Perbandingan antara penggunaan raw score, factor score, dan structural equation modeling. *Jurnal Pengukuran Psikologi Dan Pendidikan Indonesia (JP3I)*, IV(3). <https://doi.org/10.13140/RG.2.2.31086.36162>
- Tanny, T. F., Al-Hossienie, C. A. (2019). Trust in Government: Factors Affecting Public Trust and Distrust. *Jahangirnagar Journal of Administrative Studies*, 49-63.
- Tasmil. (2013). Peningkatan E-Government di Kota Makassar E-Government Rangkaing in Makassar. *Jurnal Pekommas*, 16(3), 187-196.
- Teo, T. S. H., Srivastava, S. C., and Jiang, L. (2008). Trust and electronic government success: An empirical study. *Journal of Management Information Systems*, 25(3), 99-132. <https://doi.org/10.2753/MIS0742-1222250303>
- UNDESA, U. (2001). Benchmarking E-government: A Global Perspective Assessing the Progress of the UN Member States. *United Nations Division for Public Economics and Public Administration and American Society for Public Administration*. <https://publicadministration.un.org/egovkb/Portals/egovkb/Documents/un/English.pdf>
- Waters, R. C., David, V. (2009). *Organizational Trust and its Impact on the Ability of Selected Federal Agencies to Modernize Large-scale Information Technology Systems*. May.