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**E-GOVERNMENT MODERATOR IN RELIABILITY ON SATISFACTION
AND ITS IMPLICATIONS TOWARD CITIZEN LOYALTY IN
GOVERNMENT PUBLIC SERVICE OF SURABAYA CITY**

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ABSTRACT

The purpose of this study was to determine the effects of service quality on satisfaction and effect of e-government as moderating. The results show Moderating Structural Equation Modeling (MSEM) approach that structural models involving E-Government as moderation is a model fit. Reliability, Responsiveness, Assurance, Empathy, and Tangibility has significant effect on community satisfaction with the public service in Surabaya City. E-Government has significant effect in moderating reliability and strengthening characteristic to community satisfaction with the public services in Surabaya City. Easy of service procedures, regardless who is served, clarity/ certainty personnel and officer mastering to his job, to make people satisfied. The number instructions of service location and complaint, the officer's ability to provide service, speed of service and easily contact communication, inseparable from information technology utilization such as Internet, mobile phones and the like, which is part of the e-Gov.

Keywords : MSEM, E-Government, Reliability, Satisfaction, Goodness Fit 1. INTRODUCTION

Public services in Indonesia is still very low (one of the conclusions of the World Bank) are reported in the 2004 World Development Report On the scope of Regency/City administration (although not the same) there are still many public services are centralized in one office location. Most of the Regency/City Government still serve its citizens in a centralized or one office [1]. While people who need public services has residence spread. On the other side, Information and Communication Technology (ICT) is now advancing rapidly, thus allowing the decentralization of public services integrated (not to be concentrated in one office), because most of the District/City serve its citizens still centrally or at the office. Decentralized services model such this have many benefits for all parties, also can be used as a model for the public service districts/cities, as it makes an effective, efficient and transparent and accountable as the essence of the Electronics Government in developing and developed countries many apply [2].

In District/City there are many types of public services, among other facilities, a means to obtaining a correspondence service for citizen/ communities that need it. In general, place where service/maintenance of correspondence as above is at one location (central office). There is even a settlement process to go through several offices, which sometimes is not a single office in one location, so that the citizen takes time and costs. Meanwhile, one who needs service of the documents, generally residing spread in the region of Regency/City concerned. Stewardship of these letters are generally not enough just to village level/ local municipality, as it can until District level and then Regency/City level is, which in this case is quite far from where the residents live, so it takes more time and costs to the service place. Even if it is not completed in one visit stewardship, should be some return trip, spend time and costs will rise again. As the impact of these problems, led to inefficiency and ineffectiveness of the 2 (two) parties, namely those who serve (government) and those who served (public users). For those who serve/government, traffic jam, trip age becomes shorter, air pollution, administrative irregularities and file stewardship, length of the process and others are short and long term is the Cost and Social Cost for the local government While the party being served (citizen/ community), could be transportation costs, time wasted/not productive, risk of traffic jams and accidents, stress, air pollution, the possibility of cost over runs administration of (if through the Service Bureau) and others who become dependent people who take care of.

Regency/City Government makes its own policies in terms of public service system, so that the district/city one and another is not the same model/public service system. Government of Surabaya City began to decentralize public services to sub-districts (for multiple affairs), also makes the One Stop Integrated Public Service (UPTSA) by utilizing information technology in Local Area Networks (LANs), on-line, under web and digital communications in mobile communication. Decentralization does not mean that the service is meant to stand on their own, but decentralization in control and alignment (integrated), because under control by a computer system that has been integrated. This is in line with the spirit of Electronics Government or often called e-Gov is a electronic-based government service (Information Technology) from the government to citizens (G2C), government to business (G2B), government to government (G2G). It is to be more efficient, effective and transparent and accountable, as the essence of the electronics Government.

The existence of UPTSA observed when using SWOT analysis, the strength of service process has been utilizing Information and Communication Technology (ICT) and existing employees who have advanced to

run it, so that people who do deal with is not required come to related Offices (because the system already integrated). In addition, most of Surabaya citizens are "IT literate" and has many uses gadgets, making it easier for the system is running. The weaknesses of *UPTSA* office layout is still being felt far for some people who deal, who lived far from *UPTSA* office remind that vast area of the Surabaya city, burdening for the public (time, cost and risk), especially for lower classes. The Opportunities is opportunity for this system to developing and be developed. Possibly this model may be used as a model for regency/city to another and there will be a big savings for the government (although this is necessary for further research) [5]. In addition there are many assets such as land and buildings belonging to government of Surabaya city, which allows development of several *UPTSA* in several other areas (considering the size of Surabaya), so it does not require a big budget. Threat required will and commitment for some parties to *UPTSA* service system development. Especially need strong and high commitment to municipal government leaders and the good faith of the stakeholders of this city. Seeing potential of the Government of Surabaya city that allows to build *UPTSA*, purpose of this study was to determine the effects of service quality on satisfaction and effect of e-Government as moderating.

2. METHODOLOGY

Data in this study using primary data, namely through a respondent survey about Office/One-Stop Integrated Service System Unit (*UPTSA*), located in East Surabaya, which serves 47 *Affairs* / Permit required public by means of Online system to and from the Department/Agency respectively [5,7]. There are also some services previously centralized in one office / Department/one location, has begun to be delegated to sub-districts (IMB to a broad smaller than 200 square meters) in some sub-district (trial). That is one example of decentralization and delegation of authority. This *UPTSA* already utilize Information Technology (computer system) is not just a manual system to a computer system, but it uses Local Area Network (LAN) technology, Wide Area Network (WAN), Intranet, Internet, and Wireless LAN. LAN Systems in service office is integrated completely. All Counters / Officers can serve all services that required, then performed analysis using Structural Equation Modeling (SEM). SEM is a multivariate analysis method which can be used to describe the inter-relationship of linear simultaneous between observations variables (indicator) and unmeasured directly variables (latent variables). Latent variables are variables that unable be measured directly, but can represent or be measured by one or more variables/indicators [6].

Structural Equation Modeling (SEM) is a statistical analysis technique which combines some aspects contained in multiple regression analysis and analysis factor to estimate several equations simultaneously. There are two things to be done and produced in SEM, namely (i) estimate several equations simultaneously inter connected with structural model output and, (ii) represent the latent variables based on indicator variables with output measurement model.

A structural model as relationship between independent latent variables (exogenous) with dependent latent variables (endogenous) structural equation model is as follows [8].

$$\eta = B\eta + \Gamma\xi + \zeta \quad (2.1)$$

Where η is a vector of dependent random variables endogenous with size $m \times 1$ independent random variables exogenous with size $n \times 1$, B is coefficient matrix which shows the effect of endogenous latent variable to other variable with size $m \times m$ and Γ coefficient matrix showing relationship of ξ toward η with size $m \times n$, while ζ is a error random vector with size $m \times 1$, with expected value equal to zero. The assumption of latent variables structural equation model: $E(\eta) = 0$, $E(\xi) = 0$, $E(\zeta) = 0$ and ζ uncorrelated with ξ and $(I-B)^{-1}$ is a nonsingular matrix Measurement model can be written as follows [8].

$$y = A_y\eta + \varepsilon \quad (2.2)$$

$$x = A_x\xi + \delta \quad (2.3)$$

Referring to equation (2.2) and (2.3) then covariant matrix in SEM F (8) as follows [9, 10, 11]

$$\Sigma(\theta) = \begin{bmatrix} \Sigma_{yy} & \Sigma_{yx} \\ \Sigma_{xy} & \Sigma_{xx} \end{bmatrix} \quad (2.4)$$

SEM is only directly or indirectly relationships. In this decade developed an approach that allows relationship between an independent variable to dependent variable that influenced other latent variables. The influence of a latent variable that affects relationship between independent latent variables and dependent latent variables, so-called moderated Structural Equation Modeling. In SEM, there are several methods that can be used to assess moderating effect.. A general model of structural equation can be written in the following matrix equation [12].

$$\eta = \alpha + \gamma_{11}\xi_1 + \gamma_{12}\xi_{21} + \omega_{12}\xi_1\xi_2 + \zeta \quad (2.5)$$

where:
 η = latent endogenous variables
 α = coefficient influence of endogenous latent variables
 γ = coefficient influence of exogenous latent variables
 ξ = latent exogenous variables
 ζ = error model

Conceptual study are presented as follows.

3. RESULTS AND DISCUSSION

Validity test is intended to determine whether the questions in the questionnaire is quite representative. Test validity is done by using Confirmatory Factor Analysis on each of the latent variables are X1, X2, X3, X4, X5, Z, Y1 and Y2 through AMOS20 program. The second measuring test instrument (questionnaire) is reliable, index shows that the extent measuring test instrument is reliable. Reliability is internal consistency measure of the shape variable indicators that indicates degree which each indicator variable that indicates a shape variable is general. In this study to calculate reliability using composite reliability (construct) with a minimum cut-off value is 0.7.

In detail, reliability testing on each latent variables a represented in the following table:

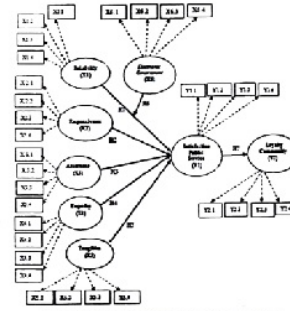


Fig. 1. Model of community loyalty conceptual

Table 1. Validity and Reliability of Latent Variables

Latent variable	Indicator	Loading (λ)	λ^2	$1 - \lambda^2$	C-R
Reliability (X1)	X1.1	0.713	0.508	0.492	0.896
	X1.2	0.912	0.832	0.168	
	X1.3	0.942	0.887	0.113	
	X1.4	0.717	0.514	0.486	
Responsiveness (X2)	X2.1	0.847	0.717	0.283	0.909
	X2.2	0.892	0.796	0.204	
	X2.3	0.880	0.774	0.226	
	X2.4	0.758	0.575	0.425	
Assurance (X3)	X3.1	0.744	0.554	0.446	0.900
	X3.2	0.763	0.582	0.418	
	X3.3	0.877	0.769	0.231	
	X3.4	0.936	0.876	0.124	
Empathy (X4)	X4.1	0.865	0.748	0.252	0.875
	X4.2	0.794	0.630	0.370	
	X4.3	0.827	0.684	0.316	
	X4.4	0.700	0.490	0.510	
Tangibles (X5)	X5.1	0.827	0.684	0.316	0.857
	X5.2	0.876	0.767	0.233	
	X5.3	0.722	0.521	0.479	
	X5.4	0.660	0.436	0.564	
E-Government (X6)	X6.1	0.672	0.452	0.548	0.914
	X6.2	0.888	0.789	0.211	
	X6.3	0.894	0.799	0.201	
	X6.4	0.940	0.884	0.116	
Satisfaction Public service (Y1)	Y1.1	0.916	0.839	0.161	0.930
	Y1.2	0.889	0.790	0.210	
	Y1.3	0.989	0.978	0.022	
	Y1.4	0.690	0.476	0.524	
Loyalty Community (Y2)	Y2.1	0.888	0.789	0.211	0.899
	Y2.2	0.829	0.687	0.313	
	Y2.3	0.917	0.841	0.159	
	Y2.4	0.675	0.456	0.544	

Table 1 above, it turns out the latent variables X1, X2, X3, X4, X5, X6, Y1 and Y2 give a loading factor and CR values above the cut-off value so that it can be said to be valid and reliable. Similarly, on each indicator error variance all p values less than 0.05 then said to be reliable.

After validity and reliability testing of each latent variable, several pre requisites that must be met in structural modeling is normal multivariate assumption, assuming the absence of multicollinearity or singularity and outliers.

Normality of the data is a pre requisite for Structural Equation Modeling (SEM). Normality testing emphasized multivariate data by looking at the value of skewness, curtosis and statistically can be seen from Critical Ratio (CR) value. If you used a significance level of 5 percent, then CR value is between -1.96 to 1.96 (-1.96 \leq CR \leq 1.96) said data were normally distributed, both univariate and multivariate. The multivariate CR

value of 1.900 and is located outside -1.96 to 1.96, so it can be said data is distributed normal multivariate.

Singularity can be seen through covariance matrix determinant. Determinant value is very small or close to zero show indication of singularity problem, so it unable used for research. The results of the study provide value of the determinant sample covariance matrix of 1.971. This value is almost close to zeros so that it can be said that there is a singularity problem in the data analyzed.

Multicollinearity can be seen through correlation between latent exogenous variables. P-value on Covariance is greater than ($\alpha=0.05$) it is said not happen multicollinearity. The results of the study provide p-value of each exogenous latent variables, namely: (X1 with X2 is 0.120), (X2 with X3 is 0.176), (X3 to X4 is 0.063), (X4 with X5 is 0.074), (X1 to X3 is 0.020), (X1 to X4 is 0.065), (X1 to X5 is 0.073), (X2 to X4 is 0.034), (X2 to X5 is 0.234) and (X3 to X5 is 0.000). This value is greater ($\alpha=0.05$) than can be said that there is no multicollinearity problems in the data analyzed.

Outlier is an observation that appears with extreme values are univariate or multivariate, i.e. that a rise due to the combination of its unique characteristics and looks far away from other observations. If there is outlier can be done special treatment in its outlier if known outlier come from.

Outlier test results presented in this study was on the Mahalanobis d-squared. Mahalanobis value was greater than chi-square table or value of $p < 0.001$ say outlier observations. In this study there are three data outliers, because still under 5 percent of the observations, it can be said not happen outliers.

After validity and reliability testing on all latent variables are valid and reliable results, the data are not multivariate normal, multicollinearity and outliers do not occur below 5 percent, then latent variables can be continued in the form of a path diagram analysis presented as follows:

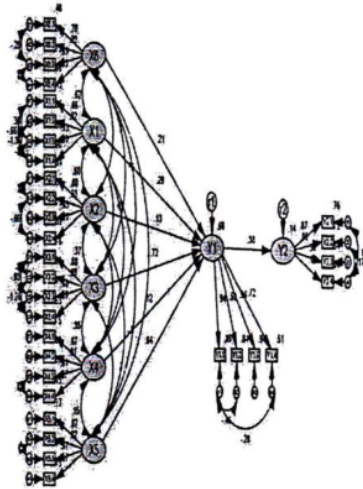


Fig. 2. Moderation Relationship Model X6 in X1 to Y1 at Stage1

Moderation latent variables in this study were X6 moderating exogenous latent variables X1 to Y1 endogenous latent variables. Moderating effect relationship model is as follows [12]. From the model relationship above, gained indicator loading value and error variance in each latent variable X6 and X1, are as follows:

Table 2. Interaction Lambda and Variance Error in X6 and X1

X6 Moderation X1 to Y1	X6		X1	
	Loading	Varians	Loading	Varians
Indicators	0.696	0.635	0.656	0.559
	0.895	0.159	0.924	0.105
	0.890	0.167	0.928	0.100
Variance	0.927	0.134	0.950	0.078
Lambda Interaction X6X1	0.638		11.7917	
Variance error Interaction X6X1			156.567	

Relationship model of X6 in latent exogenous variables X1 to Y1 endogenous latent variables are used to obtain lambda interactions and Error Variance presented as follows.

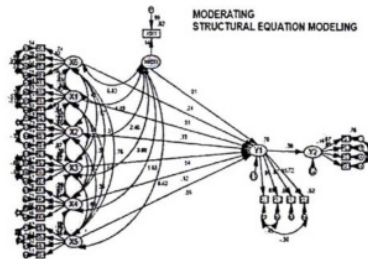


Fig. 3. Moderation on X6 Relationship Model in X1 to Y1 Stage 2

The results of measurement testing model with AMOS program is available at the following table:

Table 3. Moderating SEM Model Testing Results E-Government on The Reliability Toward Satisfaction and Loyalty

Criterion	Cut - Off Value	Estimated	Goodness of Fit
Chi - Square	Expected is low	118.967	$\chi^2_{(127; 0.05)} = 132.144$ (Good)
Significance Probability	$\geq 0,05$	0.202	Good
RMSEA	$\leq 0,08$	0.027	Good
GFI	$\geq 0,90$	0.921	Good
AGFI	$\geq 0,90$	0.888	Marginal
CMIN/DF	$\leq 2,00$	1.112	Good
TLI	$\geq 0,90$	0.986	Good
CFI	$\geq 0,90$	0.989	Good

Of a suitable model, it can be interpreted in each path coefficient. This path coefficient is hypothesized in this study, which can be presented in the following structural equation:

$$Y1 = 0.306X1 + 0.128X2 + 0.141X3 + 0.119X4 + 0.547X5 + 0.240X6 + 0.012X6X1$$

$$Y2 = 0.377Y1$$

Testing path coefficients in Figure 3 and above equations are presented in detail in the following table.

Table 4. Moderating SEM Model Path Coefficient Testing Results E-Government on the reliability toward Satisfaction and Loyalty

Variables	Coefficient	C.R.	Prob.	Conclusion
X1 → Y1	0,306	4,236	0,000	Significant
X2 → Y1	0,128	2,176	0,030	Significant
X3 → Y1	0,141	2,328	0,020	Significant
X4 → Y1	0,119	2,107	0,035	Significant
X5 → Y1	0,547	4,801	0,000	Significant
X6 → Y1	0,240	2,342	0,019	Significant
X6X1 → Y1	0,012	4,898	0,000	Significant
Y1 → Y2	0,377	5,246	0,000	Significant

Table 4, each interpretation of path coefficient as follows:

- X1 have positive effect and significant on Y1. This can be seen from path coefficient is positive sign as 0.306 CR value is 4.236 and obtained significance probability (p) of 0.000 which is smaller than the significance level (α) which was set at 0.05. Thus X1 directly affecting Y1 of 0.306, which means that every increase in X1 will increase Y1 by 0.306.
- X2 have positive effect and significant on Y1. This can be seen from path coefficient is positive sign as 0.128 CR value is 2.176 and obtained significance probability (p) of 0.030 which is smaller than significance level (α) which was set at 0.05. Thus X2 directly affecting Y1 of 0.128, which means that every increase in X2 will increase Y1 by 0.128.
- X3 have positive effect and significant on Y1. This can be seen from path coefficient is positive sign as 0.141 CR value is 2.328 and obtained significance probability (p) of 0.020 which is smaller than significance level (α) which was set at 0.05. Thus X3 directly affecting Y1 of 0.141, which means that every increase in X3 will increase Y1 by 0.141.
- X4 have positive effect and significant on Y1. This can be seen from path coefficient is positive sign as 0.119 CR value is 2.107 and obtained significance probability (p) of 0.035 which is smaller than significance level (α) which was set at 0.05. Thus X4 directly affecting Y1 of 0.119, which means that every increase in X4 will increase Y1 by 0.119.

- X5 have positive effect and significant on Y1. This can be seen from path coefficient is positive sign as 0.547-CR value is 4.801 and obtained significance probability (p) of 0.000 which is smaller than significance level (α) which was set at 0.05. Thus X5 directly affecting Y1 of 0.547, which means that every increase in X5 will increase Y1 by 0.547.
- X6 have positive effect and significant on Y1. This can be seen from path coefficient is positive sign as 0.240 CR value is 2.342 and obtained significance probability (p) of 0.019 which is smaller than significance level (α) which was set at 0.05. Thus X6 directly affecting Y1 of 0.240, which means that every increase in X6 will increase Y1 by 0.240.
- Interaction X6X1 have positive effect and significant on Y1. This can be seen from path coefficient is positive sign as 0.012 CR value is 2.342 and obtained significance probability (p) of 0.019 which is greater than significance level (α) which was set at 0.05. Thus X6X1 interaction affecting Y1, which means that X6 is stronger than X1 in affecting Y1 at 0.012.
- Y1 have positive effect and significant on Y2. This can be seen from path coefficient is positive sign as 0.377 CR value is 4.898 and significance probability (p) of 0.000 which is smaller than significance level (α) which was set at 0.05. Thus Y1 directly affecting Y2 of 0.377, which means that every increase in the Y1 will increase Y2 by 0.377.

4. CONCLUSION

The results showed SEM approach that are Reliability, Responsiveness, Assurance, Empathy, and Tangible have significant effect on community satisfaction with the public services in the Surabaya City. E-government is significant effect in moderating reliability and are strengthening community satisfaction with the public service in the Surabaya City. Easy of service procedures, regardless who is served, clarity/ certainty personnel and officer mastering to his job, to make people satisfied. The available of instruction facility service place and complaints, a good officer ability, speed of service and ease officers contacted, make people satisfied with the service of public [13,14]. Officer whom a stering, neat, polite and courteously, the suitability of the costs incurred by the exact time specified and processes, make people satisfied over public services, convenience and security factor in the service office, information about deadline for enactment Permit/Letters of the municipal government, satisfaction at the office now and a good communications employee, make peoples at is fled over public services. Safe and comfort of the services office environment, information about the deadline for enactment PermiULetters, service system better today than ever before and the ability of employees to communicate, make people satisfied with the service delivered [15].

REFERENCES

1. David Gilbert, Pierre Balestrini, Darren Littleboy, 2004. "Barriers and benefits in the adoption of e-government", *International Journal of Public Sector Management*, Vol.17 Iss: 4, pp.286 - 301.
2. Maria Akesson, Per Skildn, Bo Edvardsson, (2008) "E-government and service orientation: gaps between theory and practice", *International Journal of Public Sector Management*, Vol. 21 Iss: 1, pp.74-92.
3. Cater Barbara and Vesna Zabkar, 2009. Antecedent and Consequences of Commitment in Marketing Research Services: The Client Perspective. *Journal Industrial Marketing Management*, Vol. 38, pp. 785-797.
4. Crauna Albert, 2002. Service Loyalty The Effects of Service Quality and The Mediating Role of Customer Satisfaction. *European Journal of Marketing*. Vol. 36 No.7/8 pp. 811-828.
5. Balithangda Provinsi Jawa Timur, 2004. Laporan Penelitian: Tingkat Kesiapan Birokrasi Terhadap Teknologi Informasi dalam Rangka Penyusunan Kebijakan E-Government di Jawa Timur.
6. Hair, J.F. JR., Anderson, RE, Tatham, R.L & Black, W.C. 2006. *Multivariate Data Analysis*. Six Edition. New Jersey : Pearson Educational, Inc
7. Levy, P.S., and Stanley, L. 1999. *Sampling of Populations. Methods and Applications*. Third Edition. John Wiley and Sons. Inc. New York.
8. Joreskog, KG., 1970, *A general method for estimating a linear structural equation system*, Educational Testing Service, Princeton, New Jersey
9. Bollen, KA, 1989, *Structural Equations With Latent Variables*, John Wiley and Son, USA
10. Mulaik, S.A, 2009, *Linear Causal Modeling With Structural Equation*, Chapman and Hall, USA
11. Raykov, T. dan Marcoulides, G. R, 2006, *A First Course in Structural Equation Modeling*, Lawrence Erlbaum Associates, USA.
12. Engel, K S., Werner, C., Moosbrugger, H., 2009. *Nonlinear Structural Modeling: is Partial Least Square an Alternative?*. Goethe University, Frankfurt.
13. Anderson, EW., Fornell, C., and Rust, R.T. 1997. Customer Satisfaction, Productivity, and Profitability: Differences Between Goods and Services. *Journal of Marketing Science*, Vol. 16. No. 2, pp. 129-145.
14. David Faulkner, 2007. "Public Service Values: Leadership in the 21st Century", *International Journal of Leadership in Public Services*, The, Vol. 3 Iss: 2, pp.51-55.
15. Siddiqi Kazi Omar, 2011. Interrelations between Service Quality Attributes, Customer Satisfaction and Customer loyalty in the Retail banking Sector in Bangladesh. *International Journal of Business and Management*. Vol. 6. No. 3.

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