Elinvo (Electronics, Informatics, and Vocational Education) ISSN 2580-6424 (printed) | ISSN 2477-2399 (online)
Vol 9, No. 1, 2024, pp. 11-23

Optimizing "Open Data Jawa Tengah" through Technology Acceptance Model (TAM)

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Article Info

Article history:
Received November 15, 2023
Revised March 13, 2024
Accepted March 18, 2024

Keywords:
Open data; TAM; PLS-SEM

Abstract

The Central Java Provincial Government has implemented the "Open Data Jateng" system since 2019 for public services. Open Data is part of the application of big data, and the system does not yet have evidence to meet data needs. So, an explanatory method of research was conducted using a prediction study. The research variables are based on the development of the Technology Acceptance Model (TAM) theory and the 3Q model theory. 130 respondents from the ex-Karesidenan of Semarang City filled out 21 statements, then tested through Partial Least Square - Structural Equation Modeling (PLS-SEM). The result is that there is the highest relationship in the TAM variable, namely: the influence of the perceived usefulness variable on the behavioral intention to use variable is 42.5%, with the predictive power of increasing the two variables to 75.2% if there is treatment/policy. The relationship between TAM variables and the 3Q model was found, such as the effect between the information quality variable and perceived usefulness was 13.3%, which has a low level of influence. Although low, the predictive power is also high at 65.4% if there is a treatment or policy that supports the information quality variable. The study concluded that the optimization of Open Data Jateng can be through policy support in order to improve the quality of information.

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INTRODUCTION

Big data in this decade has been widely utilized by several sectors such as industry, companies, government, and private agencies. The role of big data and information technology continues to grow. Research [1] suggests that standards and best practices in the creation of big data as a whole have not yet been formed, and the creation of big data is more directed at decision-makers seeking guidance as much as possible. Thus, the application of big data to date has been adapted to the existing environmental conditions. Although the conceptual model based on big data is still developing, research shows that the use of information technology and big data can affect the performance of a company. Referring to [2], the principle of open data is the provision of data freely on the internet that can be reused and can be redistributed without copyright restrictions. Some experts argue that the more data the government provides as open data, the higher the level of public trust. This open data is generally in the form of a website-based system, and the data provided is usually called metadata or datasets, which in its application is restricted for privacy needs or regarding the security of the data [3].

On the other hand, this public service system must provide a complete data structure if its provision is aimed at the community or the public. Therefore, Open Data must have standards with reference to the concept of 5-data stars [4]. In the conference results, it is also mentioned that open data must have the following classification criteria: 1) complete (in the broadest sense of the word); 2) primary (collected from the source); timely (can be opened as soon as possible); 3) accessible (for a wide variety of users and purposes); machine-readable (can be processed automatically); 4) non-discriminatory (available to anyone, no registration requirements); 3) accessible (for a wide variety of users and purposes); 4) machine-readable (can be processed automatically); 5) non-discriminatory (available to anyone, no registration requirements); 5) non-proprietary (available in open formats); license-free; 6) permanent (can be found from time to time); and inexpensive. By combining TAM variables and 3Q model variables, it is expected to answer the four previous statements and provide suggestions in the form of predictions for system optimization [5], [6], [7], [8], [9].

Open data is related to the principle of public services and has been regulated so that it is distinguished between data that is public and data that is exempted. The application of big data in Indonesia can be seen through the Satu Data Indonesia program, which is based on "Presidential Regulation number 39 of 2019 concerning Satu Data Indonesia (SDI)" [10]In December 2022, the Central Government of the Republic of Indonesia officially launched the "Portal Satu Data Indonesia (SDI)", to provide public data needs, research considerations, and stakeholder references to determine a policy. SDI is an Open Data development that has a vision to create quality data that is easily accessible and can be shared between central or regional agencies to the public [11]. The components of SDI consist of a steering board at the central government level, data trustees at the central and local government levels, and supporting data trustees at the local government level. In addition, there is one data forum to agree on a list of priority data that must be displayed to the public. Publicly displayed and open data is expected to be useful for encouraging public trust, improving socio-economic scores, and encouraging participatory governance [12], [13]. To realize this, an analysis is needed that provides responses and suggestions and produces predictions of public or community acceptance of the implemented system.

In line with the application of SDI in realizing open government, the Central Java Provincial Government, through Governor Regulation number 6 of 2022 concerning “Satu Data Jawa Tengah", has also implemented the "Open Data Jawa Tengah" called “Open Data Jateng” system since 2019 for public needs. In observations, it is known that website-based “Open Data Jateng” is more often accessed by the public to fulfil public services with the slogan easy, fast, complete, and complete. So, to prove it, research on the Optimization of "Open Data Jateng" was conducted with a technology acceptance approach, as well as to find out the extent to which the system has had an impact on public acceptance or not. Optimization is defined as an effort to get the best results and meet the criteria. The optimization in question is an attempt to map the community response through the Technology Acceptance Model (TAM) approach model [14]. Literature studies [15] argue that TAM was developed to explain user behavior towards systems/technology by categorizing several dimensions such as perceived usefulness, perceived ease of use behavioral intention to use, & actual technology use. The development of TAM, according to the research [16], suggests that there are various modifications tailored to various technological contexts, such as TAM original version (1986), TAM-2 (2000), TAM-3 (2008), TAM-4 (2012), to TAM-extended (2018). Meanwhile, the 3Q model theory, proposed by [6], [17], [18], [19] to measure technology (in the form of systems, websites, applications, or even tools) with 3 (three) variables, namely: system quality (reflects the expected characteristics of system users); information quality (measures the suitability of information needed by users); service-quality (measures the services obtained by system users), and is known as the 3Q theory.

The theory of the 3Q model, according to experts, has developed a variety of indicators in each model so that they differ due to the characteristics, year, conditions, and theme of the research, as in the summary of research from: [20], [21], [22], [23]. In addition, [24] has examined system user satisfaction at a bank, also placing the three variables of the 3Q model. Another reference is the research [25], which combines the 3Q model with another model, namely task-technology fit (TTF), and is processed using Partial Least Square - Structural Equation Modeling (PLS-SEM). Another source is research [26], which measures the use of electronic-health (e-health) systems through TAM theory and the 3Q model, involving 121 respondents, analyzed using PLS-SEM. Based on these references, this research applies

ISSN 2580-6424 (printed) | ISSN 2477-2399 (online)

the TAM modification with the 3Q model, which consists of three aspects: information quality, system quality, and service quality [6], [26], [27]. Based on several research references, to optimize the "Open Data Jateng" system, this research focuses on deepening the TAM model with the 3Q model, which will answer several formulations, such as: (1) how the influence of information quality on technology acceptance for the optimization of "Open Data Jateng"?; (2) how the influence of system quality on technology acceptance for the optimization of "Open Data Jateng"?; (3) how the influence of service quality on technology acceptance for the optimization of "Open Data Jateng"?; and (4) how the impact arises from the three variables on technology acceptance for the optimization of "Open Data Jateng"? Regarding the formulation, the research results will explain the level of influence and predictive power between the two models in the "Open Data Central Java" system, as shown in Figure 1.

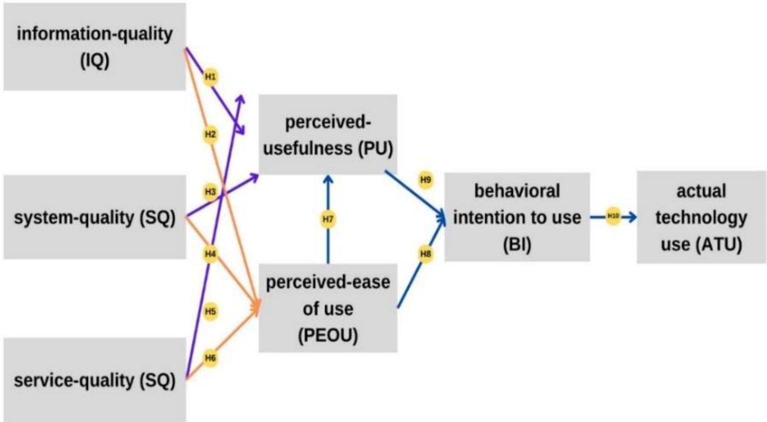

Figure 1. Relationship Chart of TAM and The 3Q-model

Based on the TAM relationship diagram with the 3Q model in Figure 1, indicators are formulated for each variable that is shown in Table 2. The variables information quality (IQ), system quality (SQ), and service quality (VQ) are independent variables that are not influenced by other variables in the model. Meanwhile, the variables perceived usefulness (PU), perceived ease of use (PEOU), behavioral intention to use (BI), and actual technology use (ATU) are variables that can be influenced by one or several variables. Furthermore, based on the research model in Figure 1, several hypotheses are proposed, as in Table 1.

Table 1. Research Hypothesis

No.	Code	Hypothesis
1.	H_0	variables do not affect each other
2.	H_1	IQ variable has an influence on PU variable
3.	H_2	IQ variable has an influence on PEOU variable
4.	H_3	SQ variable has an influence on PU variable
5.	H_4	SQ variable has an influence on PEOU variable
6.	H_5	VQ variable has an influence on PU variable
7.	H_6	IQ variable has an influence on PEOU variable
8.	H_7	PEOU variable has a variable influence on PU
9.	H_8	PEOU variable has a variable influence on BI
10.	H_9	PU variable has an influence on the BI variable
11.	H_{10}	BI variable has an influence on the ATUvariable

Table 2 shows the indicators for each variable in this research. These indicators are important in hypothesis testing as they help in evaluating the results and making a decision about whether the null hypothesis should be rejected or not.

Table 2. Variable and Indicator Descriptions

ISSN 2580-6424 (printed) | ISSN 2477-2399 (online)

No.	Variables	Code	Number of Items	Indicators
1.	information quality (IQ)	X1	4	X1.1 accuracy X1.2 completeness X1.3 availability X1.4 novelty of data
2.	system quality (SQ)	X2	3	X2.1 easy to operate X2.2 response time X2.3 security
3.	service quality (VQ)	X3	2	X3.1 accessor satisfaction X3.2 benefits and services
4.	perceived usefulness (PU)	Y1	4	Y1.1 ease of finding data Y1.2 work improvement Y1.3 discoverability of data Y1.4 usefulness
5.	perceived ease of use (PEOU)	Y2	3	Y2.1 ease of access Y2.2 flexibility Y2.3 interaction features
6.	behavioral intention to use (BI)	Y3	3	Y3.1 interest in using Y3.2 plan to use Y3.3 recommend
7.	actual technology use (ATU)	Y4	2	Y4.1 access volume Y4.2 intensity of use
	Total		**21**	

METHODS

There are three stages in the research, namely: the initial stage, the literature study, the data management stage, and the last stage the formulation of research results [28]. The research was conducted in the ex-residency of Semarang City and several regencies/cities in Central Java, with respondents being system administrators, general public/academics, and the time frame from May to June 2023. Determination of the sample from the population using practical guidance [29], [30], [31] with the provision of a minimum representative sample of 100 to 155 respondents. As a research attribute/instrument using 21 (twenty-one) like in Table 2, with statement items from the indicators of each variable: accuracy of data presentation; completeness, availability, the novelty of data, ease of system operation, response time, perceived security, access satisfaction, convenience, and flexibility. Collection of research data, sourced from the contents of a Likert scale questionnaire from respondents, on their perceived experience of the "Open Data Jateng" system. instrument data collection through questionnaires filled out by respondents online. Respondents will fill out a questionnaire using a Likert scale, with several statement items to measure individual behavior with 5 (five) response points, with a choice score on each item [32]. The choice: Strongly Agree (SS: 5 points), Agree (S: 4 points), Disagree (KS: 3 = points), Disagree (TS: 2 points), and Strongly Disagree (STS: 1 point). Validity and reliability in the questionnaire were tested before being distributed to respondents so that objectivity and consistency were met. The prerequisite test of this questionnaire refers to [30], [33].

The stage after the questionnaire prerequisite test is to select items from indicators that have high scores and have the same meaning. Next, the questionnaire is circulated to respondents for research data collection. Identification of regularities and relationships between research data comes from questionnaires presented in the form of integers or real numbers [34]. The data analysis technique uses Partial Least Square - Structural Equation Modeling (PLS-SEM). According to [30], [35], [36], PLS-SEM is called a multivariant statistical method that examines the set of influences between variables for

ISSN 2580-6424 (printed) | ISSN 2477-2399 (online)

prediction or model development. The use of PLS-SEM does not require certain distribution assumptions (normal distribution) and can run on complex models. Research [37] concluded that the reason for using PLS-SEM was applied because the study has a small sample size, is an exploratory study type, and the data distribution is not normal [38], [39].

Researchers [40] mention the reasons for its use more flexible sample size, non-normal data distribution involving complex variables, theory development, prediction studies, and structural model development. This research has a flexible sample size and involves complex variables and theory development, so the PLS-SEM analysis method is used with the SMART-PLS application. The data analysis stage is divided into three stages, namely measurement model evaluation (prerequisite test), and structural model evaluation, consisting of multicollinearity test, hypothesis testing, and F test, as well as the stage of evaluating the quality of the fit model (goodness of fit).

RESULT AND DISCUSSION

There is information that the "Open Data Jateng" system is based on website-base and Smartphone-base. Between the two bases, according to information and usage data from the system developer, it is explained that the website is more frequently accessed by users. The following is an example of its use. In May 2023, as many as 1,154 users accessed it. According to information, "Open Data Jateng" users each month fluctuate. Through consideration of suggestions and limitations of existing capabilities/conditions, research was carried out from June 5 to 16, 2023, by distributing questionnaires online (Google Form) with the help of the "Dinas Komunikasi dan Informatika" in Central Java (government).

Table 3. Respondent Data, Questionnaire

=	**Many**	**Present (100%)**
GENDER		
male		51.5%
female		48.5%
SUSCEPTIBLE AGE		
17 - 20 years old	9	6.9%
21 - 30 years old	50	38.5%
31 - 40 years old	48	36.9%
41 - 50 years old	15	11.5%
51 - 60 years old	8	6.2%
JOB		
Staff	63	48.5%
State civil servants	44	33,8%
Students	15	11,5%
Enterpreneur	8	6.2%
District / City		
Semarang City	42	323%
Salatiga City	18	13.8%
Kendal	26	20%
Semarang	26	20%
Demak	10	7.7%
Sukoharjo	5	3.8%
Banjarnegara	1	0.8%
Wonosobo	1	0.8%
Jepara	1	0.8%

Pre-test Result

The results obtained were 130 respondents, listed in Table 3. The results of the respondent data processing then went through the prerequisite test stage to determine validity and reliability. It was found that there were scores that exceeded the requirements, resulting in unfulfilled discriminant validity. This means that there is a similarity in meaning between statements or items in each construct. According to [33], if there is a failure in discriminant validity, then correction is made through the correlation matrix. In this correlation, efforts are made to sort the average score from highest to lowest. In accordance with these steps, the following average results are obtained whose items have high scores in Table 4.

Table 4. Correlation Score of HTMT Mean

Indicator	Item	Average-Score
X1	X1.2 - completeness	0.52
X2	X2.1 - easy to operate	0.48
	X2.3 - security	0.58
X3	X3.1 - accesser satisfaction	0.50
Y1	Y1.1 - ease of finding data	0.57
	Y1.2 - work improvement	0.52
	Y1.4 - usefulness	0.55
Y2	Y2.1 - ease of access	0.51
	Y2.3 - interaction features	0.54
Y3	Y3.2 - reuse plan	0.52
Y4	Y4.2 - intensity	0.52

Table 4 shows the summary of the highest Heterotrait-Monotrait Ratio (HTMT) correlation score (0.48 to 0.58) among other items/indicators. In accordance with the concept, high HTMT correlations can be removed or excluded from the model because the statements between one item and another have similar meanings. So, the analysis model through the SMART-PLS 3.0 application is shown in Figure 2.

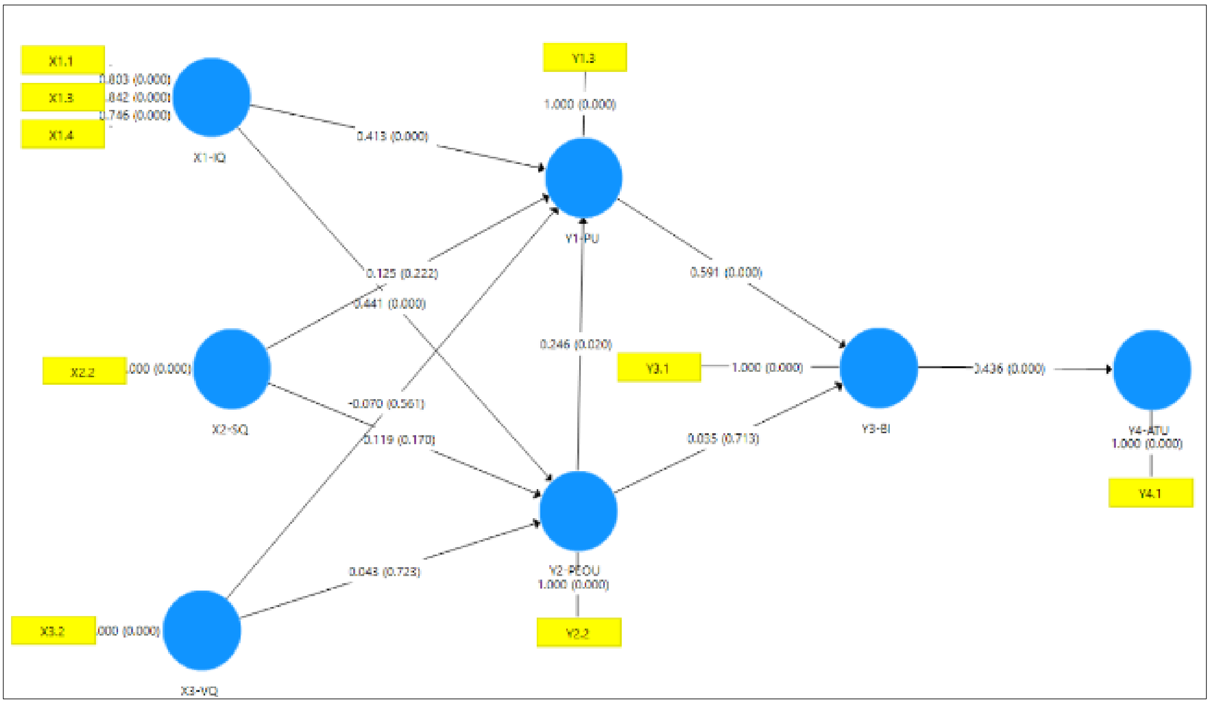

Figure 1. Variable Chart (After Item Correction With Smart-PLS)

After filtering out high item scores that cause bias, a pre-test was carried out again via Smart-PLS; the results are shown in Figure 2, and the details can be seen in Table 5.

Table 5. Summary of Validity and Reliability

Type	Result	Description
Convergent validity	valid	because the loading factor is greater than the requirement (0.50)
Discriminant validity	✓ valid for *cross-loading*; ✓ **invalid** in *fornell-lacker*; ✓ **invalid** based on *HTMT*.	✓inter-item score greater than inter-item correlation ✓there is a score that is smaller than the previous variable score ✓the score is greater than the requirement HTMT = 0.90
Reliability	reliable	✓ composite reliability is greater than the requirement = 0.70 ✓ AVE score greater than the requirement = 0.50

Table 6. The Score of Validity and Reliability

Indicator	Items	Score-Outerloading	Score-Cronbach Alpha	Score Composite Reliability	AVE
X1	X1.1	0.803	0.717	0.840	0.637
	X1.3	0.842			
	X1.4	0.746			
X2	X2.2	1.000	1.000	1.000	1.000
X3	X3.2	1.000	1.000	1.000	1.000
Y1	Y1.3	1.000	1.000	1.000	1.000
Y2	Y2.2	1..000	1.000	1.000	1.000
Y3	Y3.1	1.000	1.000	1.000	1.000
Y4	Y4.1	1.000	1.000	1.000	1.000

Referring to Hair [36], the skewness and kurtosis requirements serve as a reference for data distribution criteria (normal or not). In Table 5 and Table 6, there is a summary and score of kurtosis that exceeds the requirements (between -2 to +2). This means that the model being analysed is not normally distributed. Because the analysis in this study uses PLS-SEM, it does not make a problem whether the data is normally distributed or not. To qualify the validity and reliability, Table 5 shows that the reliability score through composite reliability is greater than the requirement (> 0.70), and the AVE score is greater than the requirement (> 0.50). So, the prerequisite is acceptable; there is no longer a similarity of meaning in the indicator items.

Structural Model Evaluation Result

The next stage is structural model evaluation, which consists of a multicollinearity test, hypothesis testing, and an f-square test. Multicollinearity test in SMART-PLS, seen through the inner variance inflated factor (VIF) score, which must be below 5 (VIF < 5). The higher the VIF score, the more serious the multicollinearity problem. Inner VIF in this model shows a low category with a score below 5 (five), so there is no multicollinearity and strengthens the model tested is robust or unbiased. In the hypothesis test, the analysis results are shown from the t-statistic score, provided that if the score is greater than 1.96 (t-table) or the p-value score (if the score is smaller than 0.05), then there is an influence between variables. The confidence interval taken is 95% with the estimated path coefficient parameter.

Table 7 shows the score from hypothesis testing results from the model in Figure 2. Based on this score, the test results for each hypothesis can be obtained. The first hypothesis (H1), stating: "information quality (X1) has an influence on perceived usefulness (Y1)", is accepted because there is a significant influence of variable X1 on variable Y1. Based on Table 6, hypothesis 1 has a path coefficient score (0.413) with a positive direction and a p-value score (0.000 <0.05). This means that users get appropriate information and utilise the information. Although the existence of the information quality variable in increasing the perceived usefulness variable has a low effect with an f-square score

= 0.133. In the 95% confidence interval, the effect of the information quality variable in increasing the perceived usefulness variable lies between 0.195 (as the lower limit) and 0.654 (as the upper limit). If there is a policy to improve information quality in "Open Data Jateng", perceived usefulness will increase to 0.654 or 65.4%.

Table 7. Hypothesis Analysis Results

Hypothesis Relations	Path-Coefficient	P-Value	Bottom	Up	F-Square
H_1 = X1 > Y1	0.413	0.000	0.195	0.654	0.133
H_2 = X1 > Y2	0.441	0.000	0.229	0.640	0.155
H_3 = X2 > Y1	0.125	0.222	-0.079	0.328	0.016
H_4 = X2 > Y2	0.119	0.170	-0.053	0.275	0.013
H_5 = X3 > Y1	-0.070	0.561	-0.322	0.142	0.004
H_6 = X3 > Y2	0.043	0.723	-0.234	0.254	0.001
H_7 = Y2 > Y1	0.246	0.020	0.036	0.439	0.068
H_8 = Y2 > Y3	0.035	0.713	-0.153	0.223	0.001
H_9 = Y1 > Y3	0.591	0.000	0.427	0.752	0.425
H_{10} = Y3 > Y4	0.436	0.000	0.252	0.587	0.235

Second hypothesis (H2): "information quality (X1) has an influence on perceived ease of use (Y2)". The statement is accepted because there is a significant effect of variable X1 on variable Y2. Based on Table 6, hypothesis 2 has a score with a path coefficient (0.441) with a positive direction and a p-value score (0.000 <0.05). This means users easily get information when accessing the "Open Data Jateng" system. However, the existence of information quality variables in increasing perceived ease of use has a moderate effect with a score of f-square = 0.155. In the 95% confidence interval, the effect of information quality to increase perceived ease of use lies between 0.229 (as the lower limit) to 0.640 (as the upper limit). If there is a policy to improve information quality in "Open Data Jateng", then perceived ease of use will increase to 0.640 or 64%.

The third hypothesis (H3), which states "system quality (X2) has an influence on perceived usefulness (Y1)", is rejected because there is no significant effect of variable X2 on variable Y1. Based on Table 6, hypothesis 3 has a path coefficient score (0.125) with a positive direction and a p-value score (0.222> 0.05). This means that although users feel the completeness of the components and access time in the "Open Data Jateng" system quickly, it is not as expected. The existence of system quality variables in increasing the perceived usefulness variable has the lowest influence with a structural level (f-square = 0.016). In the 95% confidence interval, the influence of system quality in an effort to increase perceived usefulness only lies between -0.079 (as the lower limit) to 0.328 (as the upper limit). However, if an increase in system quality is made in Open Data Jateng, perceived usefulness will only increase by 0.328 or 32%.

The fourth hypothesis (H4), which states "system quality (X2) has an influence on perceived ease of use (X2)", is rejected because there is no significant effect of variable X2 on variable Y2. Based on Table 6, hypothesis 4 has a path coefficient score (0.119) with a positive direction and a p-value score (0.170> 0.05). This means that although the "Open Data Jateng" system is easily accessible, it is still not in accordance with what users expect. The existence of system quality variables in increasing the perceived ease of use variable has the lowest influence with a structural level (f-square = 0.013). The 95% confidence interval, the effect of system quality variables to increase perceived ease of use, lies between -0.053 (as the lower limit) to 0.275 (as the upper limit). However, if an increase in system quality is made in Open Data Jateng, the perceived ease of use will only increase by 0.275 or 27%.

The fifth hypothesis (H5), which states "service quality (X3) has an influence on perceived usefulness (Y1)", is rejected because there is no significant effect of variable X3 on variable Y1. Based on Table 6, hypothesis 5 has a path coefficient score (-0.070) with a negative direction and a p-value score (0.561>0.05). This means the “Open Data Jateng” feature/menu services are not as expected by users. The existence of service quality variables in increasing the perceived usefulness variable has the lowest influence with a structural level (f-square = 0.004). In the 95% confidence interval, the effect of service quality to increase perceived usefulness only lies between -0.322 (as the lower limit) to 0.142 (as the upper limit). If service quality is increased at Open Data Jateng, perceived usefulness will only increase by 0.142 or 14%.

The sixth hypothesis (H6), which states "service quality (X3) has an influence on perceived ease of use (Y2)", is rejected because there is no significant effect of variable X3 on variable Y2. Based on Table 6, hypothesis 6 has a path coefficient score (0.043) with a positive direction and a p-value score (0.723> 0.05). This means that the “Open Data Jateng” feature/menu service is difficult for users to understand and operate. The existence of service quality variables in increasing the perceived ease of use variable has the lowest influence with a structural level (f-square = 0.001). In the 95% interval, the amount of service quality to increase perceived ease of use lies between -0.234 (as the lower limit) to 0.254 (as the upper limit). However, if an increase in service quality is made in Open Data Jateng, the perceived ease of use will only increase by 0.254 or 25%.

The seventh hypothesis (H7), which states "perceived ease of use (Y2) has an influence on perceived usefulness (Y1)", is accepted because there is a significant influence of variable Y2 on variable Y1. Based on Table 6, hypothesis 7 has a path coefficient score (0.246) with a positive direction score and p-value (0.002 <0.05). This means that users of the “Open Data Jateng” system consider this system to be easily accessible at any time (flexible) and improve performance. The existence of the perceived ease of use variable in increasing the perceived usefulness variable has a low influence with a structural level (f-square = 0.068). Within 95%, the effect of perceived ease of use in increasing perceived usefulness lies between 0.036 (as the lower limit) to 0.439 (as the upper limit). If there is a policy to increase the perceived ease of use in Open Data Jateng, perceived usefulness will increase to 0.439 or 43%.

The eighth hypothesis (H8), which states "perceived ease of use (Y2) has an influence on behavioral intention to use (Y3)", is rejected because there is no significant effect of variable Y2 on variable Y3. Based on Table 6, hypothesis 8 has a path coefficient score (0.035) and a p-value score (0.713>0.05). This means that the ease of accessing “Open Data Jateng” has no influence on the emergence of a person's interest in accessing the system. The existence of the perceived ease of use variable in increasing the behavioral intention to use variable has the lowest influence with a structural level (f-square = 0.001). The 95% confidence interval, the effect of perceived ease of use to increase behavioral intention to use service quality, lies between -0.153 (as the lower limit) and 0.223 (as the upper limit). However, if an increase is made in the perceived ease of use in Open Data Jateng, the behavioral intention to use will only increase by 0.223 or 22%.

The ninth hypothesis (H9), which states "perceived usefulness (Y1) has an influence on behavioral intention to use (Y3)", is accepted because there is a significant influence between variable Y1 on variable Y3. Based on Table 6, hypothesis 9 has a path coefficient score (0.591) with a positive direction and a p-value score (0.000 <0.05). This means that the benefits obtained by “Open Data Jateng” users have an influence on the emergence of interest in accessing the system. The existence of perceived usefulness variables in increasing behavioural intention to use has a strong influence with a structural level (f-square=0.425). In the 95% confidence interval, the effect of perceived usefulness to increase behavioral intention to use lies between 0.427 (as the lower limit) to 0.752 (as the upper limit). If there is a policy to increase the perceived usefulness of “Open Data Jateng”, the behavioural intention to use it will increase to 0.752 or 75.2%.

The tenth hypothesis (H10), which states "behavioral intention to use (Y3) has an influence on actual technology use (Y4)", is accepted because there is a significant influence between variable Y3 and variable Y4. Based on table 20, combined with theory (p. 47), hypothesis 10 has a path coefficient score (0.436) and a p-value score (0.000 <0.05). This means: that users are interested and believe that if the system provides real benefits, users always access the system. The existence of a behavioral intention to increase actual technology use has a moderate effect with a structural level (f-square = 0.235). The 95% confidence interval, the amount of influence of behavioral intention to increase actual technology use lies between 0.252 (as the lower limit) to 0.587 (as the upper limit). If there is a policy to increase behavioral intention to use in Open Data Jateng, the actual technology use will increase to 0.587 or 58.7%.

Evaluation of the fit model result

The final stage is the evaluation of the fit model (goodness of fit) to describe the amount of variation between variables. This is seen through the results of r-square, q-square, estimated model, goodness of fit index, and PLS prediction.

R-square Test Results describe the amount of variation between variables in the model, where the results obtained: (1) variable Y1 has an influence on other variables of 0.379 or 37.9% (moderate criteria influence); (2) variable Y2 has an influence on other variables of 0.295 or 29.5% (moderate criteria influence); (3) variable Y3 has an influence on other variables of 0.371 or 37.1% (moderate criteria influence); (4) variable Y4 has an influence on other variables of 0.190 or 19% (low-criteria influence).

According to Hair [36], Q-square test results function to qualitatively group the interpretation scores consisting of 0 (low), 0.25 (moderate influence), and 0.50 (high influence), with the results: (1) variable Y1 has a moderate prediction accuracy close to high, amounting to 0.306> 0.250; (2) variable Y2 has low prediction accuracy close to moderate, amounting to 0.239 <0.250; (3) variable Y3 has moderate prediction accuracy close to high, amounting to 0.344> 0.250; (4) variable Y4 has low prediction accuracy, amounting to 0.182 < 0.250;

Estimated model results are seen through the SRMR Estimated Model processing, with the analysis results showing a score of 0.133. This shows that the score is above the acceptable fit requirements, or the proposed model has fit the data or can be explained well. The Goodness of Fit (GOF) index result shows the score in the model has a score of 0.302> 0.25 (GoF standard). This shows that (GoF) or the goodness of the test results on the measurement model and structural model test as a whole are medium to high criteria. Furthermore, the PLS-predict measurement serves to measure a PLS model that is carried out whether it has predictive power or not. PLS-predict is measured through RMSE (Root Mean Squared Error) or MAE (Mean Absolute Error Model), which is done by comparing the PLS model with the LM model (regression). The results are in Table 8.

Table 8. Comparison of PLS score with LM score

	Model-PLS			***Model-LM***		
	RMSE	MAE	Q^2	RMSE	MAE	Q^2
Y1.3	0.67	0.53	0.28	0.67	0.52	0.2
Y2.2	0.73	0.61	0.24	0.73	0.61	0.2
Y3.1	0.70	0.57	0.24	0.71	0.58	0.2
Y4.1	0.77	0.53	0.14	0.73	0.56	0.2

PLS-predict, determined through (1) if there is a dominant item or all measurement items of the PLS model have a mean score lower than the regression model, then the PLS model has high predictive power; (2) if some of the PLS model measurement items have a lower average score than the regression model, then the PLS model has medium predictive power; (3) if all measurement items of the PLS model have a mean score higher than the regression model, then the PLS model has low predictive power. From Table 8. Shows that the PLS Model and the LM Model have a ratio of 7:5 (seven versus five). So, the conditions of point (a) apply: there is a dominance of the average RMSE and MAE scores on the

PLS model lower than the regression model. This concludes that the PLS model in this study has high predictive power.

CONCLUSION

The entire research model is tested with Partial Least Square-Structural Equation Modeling (PLS-SEM) analysis through Smart-PLS 3.0 software. Furthermore, to answer the problem of optimizing "Open Data Jateng" through TAM, it is contained in the following points: (1) how is the influence of information quality on technology acceptance for the optimization of "Open Data Jateng"?: The answer is that both variables have an influence with low to moderate criteria. This variable is reflected by 3 indicators: data accuracy, availability, and novelty. The data availability indicator is the most reflective indicator of the information quality variable. The prediction is that, if there is treatment for the variable, it can increase up to 65.4%; (2) how does the influence of system quality on technology acceptance for the optimization of "Open Data Jateng"? : The answer is there is no influence. This variable is only reflected by 1 (one) indicator: response time. This shows that although users feel the ease and completeness of the components and the speed of access response on the "Open Data Jateng" system, it is still not in accordance with user expectations; (3) how the influence of service quality on technology acceptance for the optimization of "Open Data Jateng"? : The answer is there is no influence. This variable is only reflected by 1 (one) indicator: benefits and services. This shows that features/menu in the "Open Data Jateng" system are not as expected by users or even some are still difficult for users to understand; (4) how the impact arises from the three variables on technology acceptance for the optimization of "Open Data Jateng"? : The answer is From the influence of the three variables on technology acceptance, it is concluded that the information quality variable (X1) plays a major role in optimizing "Open Data Jateng". Meanwhile, other variables are proven to have no influence on technology acceptance.

This means that respondents prefer and want the quality of information in Open Data Jateng to be improved by a policy or treatment from related stakeholders and developers. Among the TAM relationship models with the 3Q model, the information quality variable has a high predictive power. So even though the relationship is categorized as low, the variable is predicted to have a major impact in determining the system's quality.

The information quality variable in "Open Data Jateng" can be optimized by focusing indicators on data accuracy, availability, and novelty, which considers data standardization according to 5-Star Data [4]. Returning to the principle of public service standards from the Government, the need for evaluation and optimization is intended so that the people are satisfied with the service system that has been provided. This research's limitation is that the data respondents' scale has not reached the maximum, where the province of Central Java consists of 35 districts or cities. If there are more respondents, there will be more variations in the data obtained. In the future, similar research is expected to specifically examine the quality of information in the system, with two or more different measurement models, still aiming at predictive studies and adapting to current conditions.

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