

# Analysis of One Data Indonesia Portal User Satisfaction Using the Pieces Framework

*User Satisfaction  
and Data Portal  
System*

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## ABSTRACT

One data Indonesia is a platform created by the Ministry of National Development Planning or the National Development Planning Agency (PPN/BAPPENAS) to facilitate access to information for all levels of society regarding development in Indonesia. The One Data Indonesia Portal contains data and information from various government agencies, non-governmental organizations and other sources. Through the One Data Indonesia Portal, users can search for data and information related to topics such as the economy, education, health, social and environment. User satisfaction is a person's emotional feelings of pleasure or disappointment that occur when the performance (outcome) of a product is compared to the expected result (or results). The number of website users, the researcher wants to know the level of user satisfaction of One Data Indonesia Portal from the user's point of view by paying attention to user satisfaction indicators. The quantitative analysis used in the research is presented on the Satu Data Indonesia website ( [www.data.go.id](http://www.data.go.id) ), the research findings are presented as accurate numerical data. the results of the research are in the form of satisfaction level values and validity and reliability tests. The conclusion from the analysis of user satisfaction on the Indonesian one-data website using the PIECES method was carried out on 100 Indonesian one-data website user respondents whose characteristics were obtained based on the age, gender and occupation of the respondents using the PIECES domain.

**Keywords:** User Satisfaction, Quantitative Analysis, PIECES Method.

## INTRODUCTION

Satu Data Indonesia is a platform created by the National Development Planning Agency (PPN/BAPPENAS) or the Ministry of National Development Planning for makes it easier in obtain data and information about development in Indonesia. The One Data Indonesia Portal contains data and information from various government agencies, non-governmental organizations and other sources.

Through the Satu Data Indonesia Portal, users can search for data and information related to topics such as economics, education, health, social and environmental issues. The data and information is available in various formats such as tables, graphs and maps. Apart from that, users can also access various information developed by government agencies and other institutions. Access to data and information used in planning and decision making in various departments has become easier thanks to the Satu Data Indonesia portal, where all information on this portal can be downloaded and accessed by users who need it.

User satisfaction is the emotional state of happiness or dissatisfaction that a person experiences after comparing the results of a product with the expected results. Based on the number of users of this *website*, researchers want to know the level of satisfaction of users of the Satu Data Indonesia portal from the user's perspective by paying attention to user satisfaction indicators. PIECES technique, methodology For learn system

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information based computers that cover significant domains of value as guidelines analytical, like testing PIECES satisfaction, use For do analysis.

## METHODS

In research here, there is stages For can do analysis satisfaction One Data Indonesia Portal users use PIECES method for results appropriate data output with what was expected. The first stage starts from planning, data collection, data processing, data analysis and analysis results.

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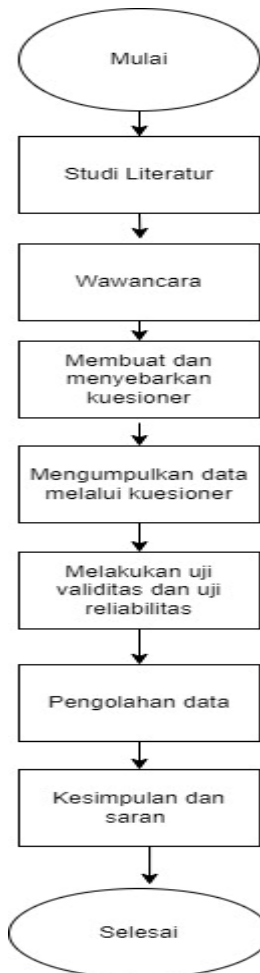


Figure 1 Research Method

At the number of users on the Satu Data Indonesia *website*, on September 22 2022 there were around 14,940 people visited Satu Data Indonesia *website*, shows that *website* One Indonesian data is enough Lots visited by the public and not yet exists research that discusses the analysis of the level of satisfaction of users of the Satu Data Indonesia portal using the PIECES *framework*, therefore the author is interested in making the Satu Data Indonesia *website* ( [www.data.go.id](http://www.data.go.id) ) as a research object. This research uses quantitative methods, namely data in the form of numbers with a population of around 1 4,940 users who use the Satu Data Indonesia *website*. The sample is part of the number and characteristics possessed by the population (Sugiyono, 2014), in this study the sample was determined using the *Slovin formula* with the error tolerance limit used being 10% due to the large population.

## RESULTS AND DISCUSSION

Study This discuss about level satisfaction from A *website* called Satu Data Indonesia, level satisfaction This assessed with use PIECES method ( *Performance, Information, Economic, Control, Efficiency, Services* ). Level of satisfaction This done with collection of distributed data through method distributed questionnaires via Google Form,

Questionnaire consists of the 23 questions that must be answered by the respondent. Collection of this data spread to user Satu Data Indonesia *website in the Bogor City area*, then done data processing from a number of answer respondents with carry out validity tests and reliability tests use SPSS 25 and Microsoft Excel *software*, then For find out the average value satisfaction use Norton and Kaplan theory and scales likert as reference.

### Characteristics Respondent

Variation respondents based on type gender, age and occupation calculated with use characteristics respondent. This matter intended to be able to give enough picture accurate about circumstances respondents and how relationship with problems and goals study. Data collection with This Questionnaire covers choice type sex respondents users of the Satu Data Indonesia website, namely type sex men and women.

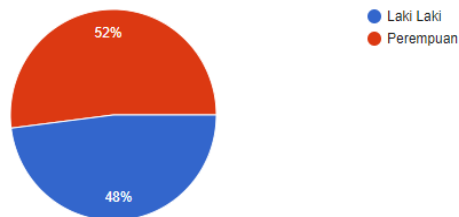


Figure 2 Gender

Result of chart on show user Satu Data Indonesia *website* with respondents man amounting to 48% or 48 respondents, meanwhile For respondents woman by 52% or 52 female respondents, because That can concluded that user The Satu Data Indonesia *website* is dominated by women.

This Questionnaire gives 3 options For respondent, Age This useful For know category age of use Satu Data Indonesia *website*, Choice age started from vulnerable 17 – 24 years, 25 – 34 years, 35 – 49 years, and age more than 50 years.

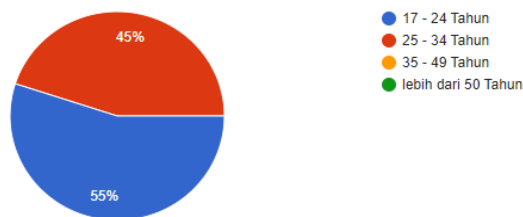


Figure 3 Age Respondent

Graphic results displays respondents from Satu Data Indonesia *website* was 45% or 45 respondents For age with distance 25 – 34 years, then 55% or 55 respondents For age with distance 17 – 24 years.

This Questionnaire gives 3 options For respondent, occupation This useful For know category jobs that use Satu Data Indonesia *website* which consists of from students, civil servants, employees private.

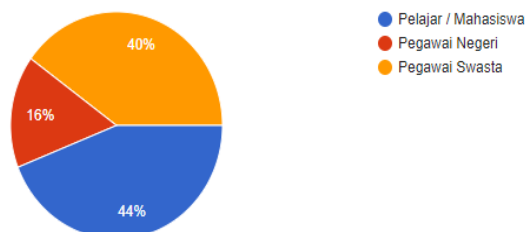


Figure 4 Types of Work

Result of chart on show user Satu Data Indonesia *website* with type the work consists from Student / Students by 44% or 44 respondents, civil servants by 16% or 16 respondents, and employees private by 40% or 40 respondents.

**Data processing**

Data processing with carry out validity and reliability tests to 100 respondents with do spread questionnaire For evaluate satisfaction to *website* one Indonesian data. Data is processed with using Microsoft Excel and SPSS 25. The questionnaire is said to be valid if question the capable fulfill and express something that is measured based on questionnaire the. Validity test measure thoroughness a tool measuring with apply Its function is to produce data respondents own relevant results or in accordance with objective measurement. There are valid standards for validity tests. If value rcount exceed mark rtable, condition This must fulfilled for value questionnaire can accepted, and results questionnaire must stated invalid if mark rcount more small from rtable.

Validity test was carried out to 100 respondents This For determine valid from question questionnaire from the Satu Data Portal website. Validity test Satu Data Portal *website* uses data as following :

$$n = 100 \quad \text{Degree of freedom ( df )} = n - 2$$

$$= 100 - 2 = 98$$

$$\alpha = 0.1 (10\%) \quad R_{table} = 0.165$$

results on prove If mark validity from A questionnaire must exceed rtable that is amounting to 0.1654 for the questionnaire valid value.

Table 1 Validity Results

No	Domain	Variable	r <sub>count</sub>	r <sub>table</sub>	information
1	<i>Performance</i>	X1.1	0.515	0.165	Valid
		X1.2	0.361	0.165	Valid
		X1.3	0.404	0.165	Valid
		X1.4	0.519	0.165	Valid
		X1.5	0.522	0.165	Valid
		X1.6	0.560	0.165	Valid
2	<i>Information</i>	X2.1	0.421	0.165	Valid
		X2.2	0.294	0.165	Valid
		X2.3	0.505	0.165	Valid
3	<i>Economy</i>	X3.1	0.139	0.165	Invalid
		X3.2	0.144	0.165	Invalid
		X3.3	0.180	0.165	Valid
		X3.4	0.189	0.165	Valid
4	<i>Controls</i>	X4.1	0.347	0.165	Valid
		X4.2	0.593	0.165	Valid
		X4.3	0.382	0.165	Valid
5	<i>efficiency</i>	X5.1	0.464	0.165	Valid
		X5.2	0.567	0.165	Valid
		X5.3	0.474	0.165	Valid
		X5.4	0.412	0.165	Valid
6	<i>Services</i>	X6.1	0.548	0.165	Valid
		X6.2	0.392	0.165	Valid
		X6.3	0.382	0.165	Valid

**Reliability Test**

Result of Table 2 shows results from reliability testing questionnaire own mark *Cronbach's alpha* more big from rtable so the conclusion is every question Reliable.

Table 2 Reliability Results

No	Domain	Variable	<i>Cronboach's Alpha</i>	r <sub>table</sub>	Information
1	<i>Performance</i>	X1.1	0.775	0.165	Reliable
		X1.2	0.785	0.165	Reliable
		X1.3	0.782	0.165	Reliable
		X1.4	0.774	0.165	Reliable
		X1.5	0.774	0.165	Reliable
		X1.6	0.773	0.165	Reliable
2	<i>Information</i>	X2.1	0.781	0.165	Reliable
		X2.2	0.788	0.165	Reliable
		X2.3	0.774	0.165	Reliable

3	Economics	X3.3	0.819	0.165	Reliable
		X.3.4	0.803	0.165	Reliable
4	Controls	X4.1	0.786	0.165	Reliable
		X4.2	0.771	0.165	Reliable
		X4.3	0.780	0.165	Reliable
5	efficiency	X5.1	0.777	0.165	Reliable
		X5.2	0.773	0.165	Reliable
		X5.3	0.777	0.165	Reliable
		X5.4	0.779	0.165	Reliable
6	Services	X6.1	0.772	0.165	Reliable
		X6.2	0.787	0.165	Reliable
		X6.3	0.780	0.165	Reliable

### Average Satisfaction

After do data processing validity and reliability furthermore do analysis results processing data from 100 respondents taken into account based on results questionnaire obtained use scale *likert* range 1 – 4 for find out the average satisfaction use *website* one Indonesian data. The *Likert* scale score can be seen in the table below:

Table 3 Likert Scale

Statement	Mark
Strongly Disagree	1
Don't agree	2
Agree	3
Strongly agree	4

After done calculation will results of average satisfaction user, next calculated Back with use Kaplan and Norton's theory for find out the average of level satisfaction user *website* one Indonesian data.

$$\text{Average of Satisfaction} = \frac{\text{Score of Respondents' Perception}}{\text{Total of Respondents}}$$

#### a. Performance

Calculation results of average satisfaction user Satu Data Indonesia *website* for the *Performance* domain get average satisfaction value of 3.26 so enter in category **VERY SATISFIED**.

Table 4 Performance Domain Questionnaire Results

<b>PERFORMANCE</b>				
Choice Answer	STS	T.S	S	SS
Score	1	2	3	4
Total Answers	1	22	425	152

$$\text{Average of satisfaction} = \frac{3.31 + 3.38 + 3.26 + 3.25 + 3.20 + 3.17}{6}$$

$$\text{Average of satisfaction} = \frac{19.57}{6} = 3.26$$

#### b. Information

Calculation results of average satisfaction user Satu Data Indonesia *website* for the *Information* domain get average satisfaction value of 3.36 so enter in category **VERY SATISFIED**.

Table 5 Domain Information Questionnaire Results

<b>INFORMATION</b>				
Choice Answer	STS	T.S	S	SS
Score	1	2	3	4
Total Answers	0	6	217	77

$$\text{Average of satisfaction} = \frac{3.39 + 3.43 + 3.27}{3}$$

$$\text{Average of satisfaction} = \frac{10.09}{3}$$

$$\text{Average of satisfaction} = 3.36$$

c. **Economics**

Calculation results of average satisfaction user Satu Data Indonesia *website* for the *Economic* domain get average satisfaction value of 2.98 so enter in category **SATISFIED**.

Table 6 *Economic* Domain Questionnaire Results

<b>ECONOMIC</b>				
Choice Answer	<b>STS</b>	<b>T.S</b>	<b>S</b>	<b>SS</b>
Score	1	2	3	4
Total Answers	3	15	147	35

$$\text{Average of satisfaction} = \frac{2.89 + 3.07}{2}$$

$$\text{Average of satisfaction} = \frac{5.96}{2}$$

$$\text{Average of satisfaction} = 2.98$$

d. **Controls**

Calculation results of average satisfaction user Satu Data Indonesia *website* for domain *control* get average satisfaction value of 3.18 so enter in category **SATISFIED**.

Table 7 Domain *Control* Questionnaire Results

<b>CONTROL</b>				
Choice Answer	<b>STS</b>	<b>T.S</b>	<b>S</b>	<b>SS</b>
Score	1	2	3	4
Total Answers	1	25	213	61

$$\text{Average of satisfaction} = \frac{3.12 + 3.32 + 3.12}{3}$$

$$\text{Average of satisfaction} = \frac{9.56}{3}$$

$$\text{Average of satisfaction} = 3.18$$

e. **Efficiency**

Calculation results of average satisfaction user Satu Data Indonesia *website* for the *Efficiency* domain get average satisfaction value of 3.29 so enter in category **VERY SATISFIED**.

Table 7 Domain *Efficiency* Questionnaire Results

<b>Efficiency</b>				
Choice Answer	<b>STS</b>	<b>T.S</b>	<b>S</b>	<b>SS</b>
Score	1	2	3	4
Total Answers	0	5	276	119

$$\text{Average of satisfaction} = \frac{3.32 + 3.40 + 3.23 + 3.23}{4}$$

$$\text{Average of satisfaction} = \frac{13.18}{4}$$

$$\text{Average of satisfaction} = 3.29$$

f. **Services**

Calculation results of average satisfaction user Satu Data Indonesia *website* for the *Services* domain get average satisfaction value of 3.29 so enter in category **VERY SATISFIED**.

Table 8 Domain *Services* Questionnaire Results

<b>SERVICES</b>				
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Choice Answer	STS	T.S	S	SS
Score	1	2	3	4
Total Answers	0	7	222	71

$$\text{Average of satisfaction} = \frac{3.25 + 3.43 + 3.20}{3}$$

$$\text{Average of satisfaction} = \frac{9.88}{3}$$

$$\text{Average of satisfaction} = 3.29$$

### Analysis Results

After done data processing based on data provided by 100 respondents through questionnaire to analysis satisfaction user *website* one Indonesian data concluded a number of results based on 6 domains from PIECES (*performance, Information, Economy, Control, Efficiency and Services*) use scale *Likert* and Kaplan and Norton theories were obtained results :

Table 9 Analysis Results

Domain	Mark	Information
<i>Performance</i>	3.26	Very satisfied
<i>Information</i>	3.36	Very satisfied
<i>Economy</i>	2.98	Satisfied
<i>Controls</i>	3.18	Satisfied
<i>efficiency</i>	3.29	Very satisfied
<i>Services</i>	3.29	Very satisfied

The results of the 6 PIECES *Performance domains* have a value of 3.2 6 in the VERY SATISFIED category, *Information* has a value of 3.36 in the VERY SATISFIED category, *Control* has a value of 2.98 in the SATISFIED category, *Economy* has a value of 3.18 in the SATISFIED category, *efficiency* has a value of 3.2 9 in the VERY SATISFIED category and finally *Services* has a value of 3.2 9 in the VERY SATISFIED category.

### CONCLUSIONS

Results of validity tests questionnaire for Satu Data Indonesia respondents using Microsoft Excel and SPSS *software* found validity test results from 23 questionnaire questions, 21 questions were declared valid and 2 were declared invalid. Then the results of the reliability test from 21 questions to 100 respondents were declared reliable. Based on PIECES method H results of analysis of average satisfaction user Satu Data Indonesia *website* from each domain, where *Performance* gain mark 3.2 6, *Information* has a value of 3. 36, *Economy* has a value of 2.98 *Control* has value 3.1 8, *Efficiency* has value 3.2 9 and finally *Services* has a value of 3.2 9. From the sixth framework working on the PIECES method, indicator X3.3 finds mark lowest indicating that dissatisfaction user to There is or or not information costs, so must done repair For can displays exists information about costs What only those on the Satu Data Indonesia *website*.

Suggestions for what to do for researcher furthermore is as following : Do use method testing latest other For study about satisfaction Satu Data Indonesia *website* for find results other. Use other analysis *software* than the author 's research use moment and it is hoped that this research can be continued by increasing the number of samples and respondents with many other methods so that it is hoped that we can get better results and can close lack from research conducted this moment..

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