

Supplementary File

Paper Title: Open Data Portal Quality (ODPQ) Framework Based Metric for Assessing the Quality of Open Data Portals in Indonesian Local Governments

A. City and Province Level Municipalities in Indonesia being contacted for Expert Judgment for Analytic Hierarchy Process (AHP)

Analytic Hierarchy Process (AHP) assigns weight to dimensions and subdimensions to determine the final assessment score. *Kominfo* is the Indonesian Ministry responsible for administering the open data portal, which is variously based at the city and province levels. Expert judgment is needed to assess the importance of the three dimensions and subdimensions in Table 1 (main paper).

The questionnaire is a question about the dimensions and subdimensions that support a concept of Open Data portal quality. The total number of intended respondents was 17. The Table A1 presents the list of the Indonesian Ministry of Communications and Informatics or *Kementerian Komunikasi dan Informatika (Kominfo)* at city and province level that are being contacted.

Table A1. List of Cities and Province that being contacted for the AHP assessment

No	Cities	Open Data Portal
1	Diskominfo DKI Jakarta (P)*	http://data.jakarta.go.id
2	Diskominfo Kota Bandung	http://data.bandung.go.id
3	Diskominfo Kota Bogor	http://data.kotabogor.go.id
4	Diskominfo Kota Semarang	http://opendata.semarangkota.go.id
5	Diskominfo Kota Surakarta	http://data.surakarta.go.id
6	Diskominfo Kota Makassar	https://opendata.makassar.go.id
7	Diskominfo Kota Jambi	http://data.jambikota.go.id
8	Diskominfo Kota Magelang	http://data.magelangkota.go.id
9	Diskominfo Propinsi Jawa Tengah	http://data.jatengprov.go.id
10	Diskominfo Kota Banda Aceh	http://data.bandaacehkota.go.id/index.php
11	Diskominfo Propinsi Aceh (P)*	http://data.acehprov.go.id
12	Diskominfo Kabupaten Kendal	http://data.kendalkab.go.id
13	Diskominfo Kabupaten Brebes	http://data.brebeskab.go.id
14	Diskominfo Kota Salatiga	http://data.salatiga.go.id
15	Satu Data Indonesia (N)**	https://www.data.go.id/home
16	Open Government Indonesia (OGI) (N)**	
17	The Indonesian Ministry of Communications and Informatics	

*(P) Province, **(N) National

B. Questionnaire Design for AHP

There are 3 dimensions and sub-dimensional metrics that are being used for the assessment of data quality for Indonesian open data portal. The questionnaire was

prepared to compare each measurement dimension of the ODPQ framework. The rating scale used adopts the parameters of the AHP. Here is the AHP rating scale 1- 9:

Table B1. Likert Scale (1-9) Definition for ODPQ Framework Based Metric

Value (Likert Scale)	Definition	Description
1	<i>Equally important</i>	Both assessments contribute equally to the cause
3	<i>A little more important than any other metrics</i>	An assessment is a little more helpful in defining data quality published at the open data portal
5	<i>Is More important than</i>	An assessment is very supportive in defining data quality published at the open data portal
7	<i>Is Very Important</i>	An assessment is strongly supported over others in defining data quality published at the open data portal; it's dominance is shown and demonstrated in practice while administer open data portal
9	<i>Absolute More Important</i>	An assessment is more important (absolute) than the rest of activity in defining data quality published at the open data portal
2, 4, 6, 8	<i>Middle value</i>	The middle value between two adjacent decision values from both assessments being compared in defining data quality published at the open data portal

The questionnaire asked whether each dimension or sub-dimensional is having the range of 1-9 (Likert scale) which defined at Table B1. For example, as follows:

Keberadaan dibanding Kesesuaian

1 2 3 4 5 6 7 8 9

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Note: In this question, the metric Existence (Qe) – the metrics intended, versus Conformance (Qc), being asked whether it is:

- Equally important (1), or
- A little more important than any other metrics (3), or
- Is More important than (5), or
- Is Very Important (7), or
- Absolute More Important (9) or
- Middle value (2, 4, 6, 8) in between the option listed above.

Table B2. Matrix Paired – Three Metric Dimensions Assessment

	Existence	Conformance	Open Data
Existence	A11	A12	A13
Conformance	A21	A22	A23
Open Data	A31	A32	A33

Table B3. Matrix Paired – Sub Dimensions *Existence (Qe)*

	Access	Discovery	Contact	Right	Preservation	Date
Access	A11	A12	A13	A14	A15	A16
Discovery	A21	A22	A23	A24	A25	A26
Contact	A31	A32	A33	A34	A35	A36
Right	A41	A42	A43	A44	A45	A46
Preservation	A51	A52	A53	A54	A55	A56
Date	A61	A62	A63	A64	A65	A66

Table B4. Matrix Paired – Sub Dimensions *Conformance (Qc)*

	Access-Url	Contact-Url	ContactEmail	Date Format	License	File Format
AccessUrl	A11	A12	A13	A14	A15	A16
ContactUrl	A21	A22	A23	A24	A25	A26
Contact-Email	A31	A32	A33	A34	A35	A36
Date Format	A41	A42	A43	A44	A45	A46
License	A51	A52	A53	A54	A55	A56
File Format	A61	A62	A63	A64	A65	A66

Table B5. Matrix Paired – Sub Dimensions *Open Data (Qo)*

	Open Format	Machine Readable	Open License
Open Format	A11	A12	A13
Machine Readable	A21	A22	A23
Open License	A31	A32	A33

The survey results are explained in this Supplementary File, Part C.

C. Results of the questionnaire for matrix paired

We set up an online form (Google Form), and from 17 invitations sent to the list of cities and provinces (Table A1), we got 7 responses (anonymous) for the expert judgments of each sub-dimensions. Results of survey anonymously from these employers that administer the open data portal from The Indonesian Ministry of Communications and Informatics or *Kementerian Komunikasi dan Informatika (Kominfo)* at city and province level are recorded using Google Form. The results of the ODPQ expert judgment responses are available at <https://its.id/ODPQsurveyAHP>

The calculation from the paired matrices questionnaires and responses, is available at this link <https://its.id/ODPQcalculationAHP>