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Sistem Kekuasaan dan Budaya Masyarakat Sipil dalam Pengelolaan Limbah: Perspektif Pengelolaan Limbah di Tokyo

Civil Society Culture and Authority Systems in the Perspectives on Waste Management in Tokyo

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ABSTRAK

Perkembangan ekonomi, industrialisasi dan peningkatan jumlah penduduk, khususnya di Tokyo menimbulkan persoalan sampah di Jepang pada tahun 1950-an. Sebagai solusi atas masalah ini, pemerintah Jepang menerapkan praktik pengelolaan limbah padat, termasuk promosi 3R, pengumpulan terpisah, fasilitas insinerator limbah di wilayah perkotaan, pemulihan energi efisiensi tinggi, daur ulang abu insinerator, dan pembuangan akhir. Artikel ini bertujuan untuk mengetahui apakah solusi yang ditawarkan memiliki konsekuensi yang tidak terduga dan bagaimana sejumlah elemen masyarakat bereaksi terhadapnya. Karya ini menggunakan pendekatan kuantitatif dengan penerapan Q-Methodology. Temuan masalah menunjukkan terdapat empat tipe orang dan keyakinan inti, yakni: (a) Keyakinan inti super otoriter yang ditunjukkan oleh Ilmuwan yang mendukung pemerintah, (b) Keyakinan inti egaliter dengan pada masyarakat sipil yang berpandangan ekstrim, (c) Keyakinan sentral yang relatif egaliter, ditunjukkan oleh masyarakat sipil yang setuju dengan pemerintah, (d) Nilai individualistis inti otoriter yang tercermin pada perusahaan swasta yang bekerja untuk pemerintah.

Kata Kunci: Kekuasaan, Pengelolaan Limbah , Tokyo

ABSTRACT

Economic development, industrialization and increasing population, especially in Tokyo, gave rise to waste problems in Japan in the 1950s. As a solution to this

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problem, the Japanese government implemented solid waste management practices, including 3R promotion, separate collection, waste incinerator facilities in urban areas, high efficiency energy recovery, incinerator ash recycling, and final disposal. This article aims to determine whether the proposed solutions have unpredictable consequences and how some elements of society react to them. This work uses a quantitative approach with the application of Q-Methodology. The findings of the problem show that there are four types of people and core beliefs, namely: (a) Super authoritarian core beliefs shown by scientists who support the government, (b) Egalitarian core beliefs with extreme views in civil society, (c) Central beliefs that are relatively egalitarian , demonstrated by civil society that agrees with the government, (d) The authoritarian core individualistic values are reflected in private companies working for the government.

***Keyword** : Power, Tokyo , Waste Management*

INTRODUCTION

The United Nations projects an increase in the human population of 2 billion people in the next 30 years, from 7.7 billion today to 9.7 billion in 2050 (UN, 2019). This increase estimated to occur mainly in developing countries in Asia, Africa and Latin America. In Europe, North America and other rich industrialized countries population movements are relatively flat. Meanwhile Germany, Russia and Japan are gearing up for population decline (Nations, 2019). The rapid population increase due to industrialization and urbanization is responsible for the constant discharge of generated waste (Hiremath, 2016). If managed properly, population quantity can actually be the advantage of a country (Mustapa, 2019a).

With the absence of an effective and efficient waste management system, large amounts of solid waste will generated and have harmful consequences for health and the environment. In all respects, solid waste management able to defined as a discipline related to controlling the production, storage, collection, transfer and transportation, treatment and disposal of solid waste in a proper way. In addition, waste that is not managed properly has a major impact on health, local and environmental health. The global nature of municipal solid waste includes its contribution to CHG emissions, such as, methane from the organic fraction of the waste stream (Barnabas & et. All., 2017).

In several Asian countries, problems in waste management practices are manifold. In 2007, it noted that the waste generation in Asia reached 1 million tons per day. In addition, they have to pay around USD 25 million per year for waste management, even though the consequences of environmental damage are still continuing in the region. Policies and laws and regulations, sources and amounts of waste, storage, collection and transportation, processing and disposal as well as infrastructure for solid waste management are also other obstacles faced (APO, 2007).

The waste problem in Japan has been around for a long time. At the beginning of Japanese modernization, since the Meiji Restoration (late 19th century-early 20th century), garbage was often dumped on the side of the road or on vacant lots. In the post-war period (1945-1950s), waste was piled up in the open or dumped into rivers. In 1967, basic measures for environmental pollution control put in place to promote comprehensive pollution control measures.

In 2000, the Japanese government established basic actions to build a healthy material-cycle society (basic recycling action) to promote a healthy material-cycle society establishment designed to make sure 3Rs (Reduce, Reuse and Recycle) implementation and waste management right. Currently, apart from the efforts made to promote the 3Rs (since 2006), the environment minister's awards for their contribution to the formation of a healthy material cycle society, the government has also endorsed the “Green City” (Mansouri & Kacha, 2017),

Combustible waste incinerated in 20 incineration plants (as of December 2015) in a safe, stable and efficient way. Incineration prevents bacteria, pests and bad odors, and maintains a sanitary environment in Tokyo. By burning trash, the volume reduced to about one - twenty. By recycling some of the bottom ash into cement, and by melting it into slag, the amount disposed of in landfills reduced. However, waste that is not suitable for transport to the incinerator can lead to incinerator shutdown or failure, costing a lot of money

and time before recovery. If the facility is unable to receive waste, waste collection and transfer operations will stop, which has a serious impact on waste management in 23 cities. To prevent improper entry of waste, routine thorough inspections of incoming waste carried out in all incineration plants with 23 cities collaboration (Parajuli, 2016).

In the 1960s, Japan considered one of the most polluted countries in the world after the Kogai outbreak but in the following years, Japan adopted adequate policy measures and made relevant technological changes to become an environmentally friendly country. In Japan, waste materials, such as trash, dust and wax, have long been called "dirt" until the Garbage Disposal enactment & General Cleaning Act in 1970. The transfer of responsibility from local authorities to producers ensures the minimization of waste and recycling of products. While this may seem like a type of command-and-control regulation, it focuses more on providing incentives for voluntary action and technological innovation to improve environmental efficiency. Strict regulations, application of technically oriented recycling measures and generally encouraging participation from the public and private sectors, recycling eventually becomes more of a habit than an approach regulated by the authorities (Niyati, 2015).

In Japan, and particularly in Tokyo, waste management practices emphasized on the incineration system. There are 21 incinerator units operated to serve 23 Tokyo Metropolitan areas. Through the incineration system, all combustible waste is completely burned in the incinerator. Then the resulting sludge transported to a landfill off the coast of Tokyo Bay and some of it used as a part for building pedestrian blocks. The policy for handling waste through the incineration process has caused a number of problems. The incineration process can result in atmospheric emissions, ash and slag, as well as through cooling water. Atmospheric emissions are the only source of danger as a pathway for human exposure, especially some of the substances contained therein, such as: particulates, dioxins and furans and other carcinogens such

as polycyclic aromatic hydrocarbons, whose health effects are quite well-known (Titto & Savino, 2019).

In addition, incinerators also have a negative impact on the environment. Pollution generated from burning waste exposes communities around the incinerator to dangerous, expensive, and unavoidable public health risks (Donahue, 2018). In fact, waste management need to carried out in an integrated way through three-dimensional harmony, namely environmental effectiveness, social acceptability, and economic affordability (Marshall & Farahbakhsh, 2013).

Several studies related to waste management in Japan have carried out. Parajuli (2016), through a descriptive narrative, explains that the last estuary of the waste management process in Japan burned at an incineration plant. The waste becomes ash with a volume of about one twentieth. To prevent pollution, the heat energy from the incinerator used for electric power, supplying hot water vapor to surrounding public facilities. Jones (2015) reviewed the Yokohama G30 Policy implemented in January 2003. This program for reducing 30% (genryō in Japanese) of the volume of waste generated (gomi) in 2010 compared to the baseline for the 2001 fiscal year.This policy is recognized as an example successful environmental policy-making implemented by local governments. The volume of waste generated decreased from 1.6 million tonnes of waste in 2001 to 0.9 million tonnes in 2009, a decrease of 42% which exceeded the first target of 30%.

Niyati (2015) conducted a comparison of waste management in Japan and India. According to him, the waste management system in Japan is difficult to run well in India, because of the differences in the waste composition between the two countries and an informal recycling sector existence that is widespread in India. Incorporating technology such as incineration （which is commonly used in Japan）, is relatively expensive and unsuitable for weaker economies such as India. India needs to use available human resources in the informal sector to increase recycling rates, make technological innovations

and take over time advances in regulatory systems to meet a good waste management society.

Mansouri & Kacha (2017). By examining the judicial and technological aspects of the Collection-Transport Disposal process. The results of his study explain that the social and political dimensions, namely the citizens involvement and the government, are pillars of the smooth running of these two aspects. Where, the legal process develops in the challenges accordance posed by rapid economic growth and extensive industrialization; however, the development of environmentally friendly technologies in waste disposal and transportation continues to aid in increasing sustainability in Japanese cities.

In contrast to the study approach above, this paper examines the perspective of stakeholders (power) that is relevant to the policy approach, exemplified in cultural theory as egalitarian, fatalistic, individualistic and hierarchical (Nielsen, T. D., & Thompson, 2013). To support this concept, the Advocacy Coalition Framework (ACF) theory used, which explicitly identifies beliefs as the driving force behind political behavior. This idea consists of three levels of confidence in the actors, namely: deep core belief in the top of the belief system, policy core beliefs in the middle of the belief system hierarchy and secondary trust on the bottom of the belief system (Weible, Sabatier, & Mcqueen, 2009).

Based on the new structure put forward, this study aims to find stakeholder perceptions of waste management practices in Tokyo and how much influence the role of power authority and civil society culture has in the waste management process. Community participation is an important element in the process of implementing political policy (Mustapa, 2019b).

RESEARCH METHOD

In order to understand the perspectives on waste management in Tokyo, we use Q methodology as a research tool. Q methodology looks for correlations between subjects across a sample of variables. Q factor analysis reduces the many individual viewpoints of the subjects down to a few factors

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which represent shared ways of thinking with quantitative approach (Goertz & Mahoney, 2012).

Q-methodology is a technique for studying human subjectivity. Q-methodology identifies how individuals with like views perceive an issue (Morcol, 2007). As mentioned in the conceptual framework, we used cultural theory to formulate indicators, based on the framework introduced by anthropologist Mary Douglas and Michael Thompson (2003). This theory is used as a way to see the world-view of a problem particularly issues related to sustainable development and risk management (Ismail, 2012).

The Q technique procedure involves presenting participants with a set of items that the represent the full range across the topic of interest and asking the participants to rank the statements according to a provided instruction. The ranking proceeds in two stages: a rough grouping, according to the positive, negative, and neutral points on a scale, following by finer-grained distribution of the items on the scale. Instructions usually do two things: they provide participants with a situation or context and a description of the ranking scale.

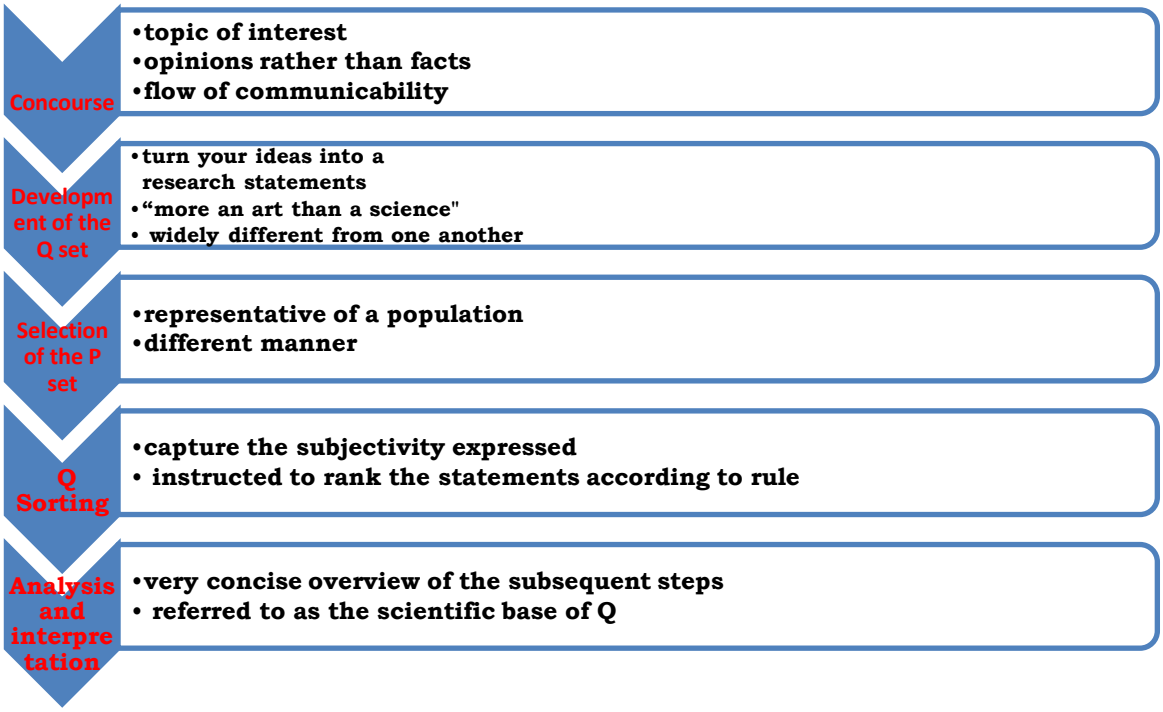

Figure 1 : Q Sort Grid

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RESULT AND DISCUSSION

Identifying factors merger of correlation between a respondent Q sort and the factor or reviewing variable 'x' indicates a high association between a respondent's Q sort and the factor.

Nine respondents which represented Civil Society, Industry Government, Scientist and Government were interviewed. The results were then analyzed using the PQ method software. The results of the factors are shown below.

Table 2. Q SORT

No.	Q Short	1	2	3	4
1.	Civil society (1)	0.0258	0.1226	0.8788x	-0.1358
2.	Industry Government (1)	-0.1186	-0.2428	-0.1610	0.8297x
3.	Government	0.7951x	-0.3232	-0.0263	-0.2161
4.	Scientist (1)	0.8435x	0.0242	0.2466	-0.0197
5.	Scientist (2)	0.3056	-0.1817	0.5756	0.6004
6.	Civil society (2)	0.1216	0.9388x	-0.1036	-0.0923
7.	Industry Government (2)	0.0633	-0.7290	-0.2392	0.2777
8.	Scientist (3)	0.6594	0.0730	-0.1169	0.2777
9.	Civil Society	0.7010	0.3628	0.1003	-0.0514

Note:'x' indicates a high association between a respondent's Q sort and the factor.

Our analysis identified four factors namely:

1. The factor 1: The perspectives that show scientist's view supports government policy.
2. The factor 2: The perspectives that indicates civil society's point of view.
3. The factor 3: The perspectives about importance of waste management information and training provided by government to citizens.
4. The factor 4: The perspectives of private sector's encouragement to government policy practice.

Identifying Factor Characteristics

Q methodology provides an array of normalized factor score for each factor. In this research, PQ method generated four set of normalized z-scores, each containing all 23 statements listed in a rank order based upon these z-score, which z-scores is character of factor. Thus, the z-score and be used to create a representative Q sort grid for each factor. Moreover, it is the strongest z-scores (the most agree and disagree) that truly differentiate each of the

factors.

Table 3. Positive z-score statements and factor array for factor 1

No.	Statements	(z score;factor array)
10	There should be a campaign for reducing plastic bag usage	(1.523 ; 3)
11	Bureau of Environment Tokyo Metropolitan need to develop new waste management technology	(1.523 ; 3)
3	Biodegradable waste should be composted and not incinerated	(1.350 ; 2)
22	Shame is the key to waste management effectiveness in Tokyo	(1.350 ;2)

As indicated by the factors score and statement value: (1.523;3) this cluster shows that reducing plastic bag usage should be campaign to decrease the amount of plastic waste. And the government need to find another waste management system that environment friendly. Furthermore, the waste should be separated not all incinerated.

According to culture theory those statements indicated scientist view that support government to develop a new waste management system.

Factor 1, identified as a rationalism character in cultural theory, that has an evidence based policy making (*hierarchism*).

Table 4. Positive z-score statements and factor array for factor 2

No.	Statements	(z score; factor array)
17	The current waste management practices in Tokyo is not feasible for the future long term plan	(1.706 ; 3)
21	Homeless people in Tokyo should be employed in waste management Practices	(1.706 ; 3)
3	Biodegradable waste should be composted and not incinerated	(1.138 ; 2)
18	Government should provide subsidy to industries to disposal waste	(1.138 ; 2)
20	Government information is not enough for citizens on waste toxicity	(1.138 ; 2)

As indicated by the factors score and statement value: (1.706;3), this cluster believes in the needed of new waste management system due to the incinerator is not feasible for the future long term plan. Biodegradable waste should be separated so it can be composted.

Those statement obviously shows characteristic of civil society, that

indicated the characteristic of egalitarian.

Factor 1, identified as an egalitarian character in cultural theory, that has green approaches that should be strictly followed.

Table 5. Positive z-score statements and fator array for factor 3

No.	Statements	(z score ; factor array)
13	Children from the age of 5 should be involved in community based waste management.	(1.706 ; 3)
14	School community should be involved for taking strategic decisions at the ward level on waste management practices.	(1.706 ; 3)
6	Local government has provided enough training to citizens in waste management processing	(1.138 ; 2)
15	NGO community should bring crowd sourced information on illegal waste dumping	(1.138 ; 2)
19	The information provided by government on waste toxicity is sufficient and Satisfactory	(1.138 ; 2)

As indicated by the factors score and statement value: (1.706;3), this shows that it is. important to involved children into waste management awareness because school community important on waste management practices. Supporting from social community and school community in waste management practices show view of civil that indicates egalitarian carateristic group which sometimes encourage government policy (Rayana, 2019).

Factor 3, identified as an egalitarian character in cultural theory, that has sustainable approaches should be followed.

Table 6. Positive z-score statements and fator array for factor 4

No.	Statements	(z score, factor array)
4	All waste should be incinerated as processing of waste is cumbersome.	(1.706 ; 3)
8	Government provides enough information on the chemicals that are released to the environment during incineration.	(1.706 ; 3)
6	Local government has provided enough training to citizens in waste management processing	(1.138 ; 2)
9	Government has to force retailers to use non-plastic bag as shopping bag	(1.138 ; 2)
22	Shame is the key waste management effectiveness in Tokyo	(1.138 ; 2)

As shown in factors score and statement value: (1.706;3) this cluster believes in the facts that incinerator still effective to managing waste. Furthermore, this cluster also consider that government had socialize enough

to provide information about chemical waste during the incineration process.

Those statement show characteristic of individualism in culture theory which is indicated by private industry that working for government. Factor 4, identified as an individualism and hierarchism character in cultural theory, that has business approach.

Identifying of correlation between factor scores.

The correlations among factors of waste management policy and practices are indicated by indigo scores which are listed in the following table:

Table 7. Correlations between Factor Scores

Factor	1	2	3	4
1	1.0000	-0.0012	0.0958	-0.0905
2	-0.0012	1.0000	0.0735	-0.3088
3	0.0958	0.0735	1.0000	-0.2353
4	-0.0905	-0.3088	-0.2353	1.0000

From the table above we can see:

1. As indicated by score correlation score between 1 and 3: 0.0958, this show that the scientist (hierarchical) could cooperative well with the civil society (*egalitarian*) with moderate tendency. Those core beliefs cooperation (hierarchist and egalitarian) show coalition which could make a hierarchist policy beliefs regarding advocacy coalition framework theory.
2. As indicated by score correlation score between 1 and 2: -0.0012, this show that the scientist (*hierarchist*) could not cooperative well with the civil society (*egalitarian*) with extreme tendency. They could not cooperate because of opposite core beliefs regarding advocacy coalition framework theory.
3. As indicated by score correlation score between 1 and 4: -0.0905, this show that the scientist (*hierarchist*) could not cooperative well with the industry government (*individualist*). They could not cooperate because of opposite core beliefs regarding advocacy coalition framework theory.

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4. As indicated by score correlation score between 2 and 3: 0.0735, this show that the civil society (*egalitarian with extremely tendency*) could cooperative well with the civil society (*egalitarian with moderate tendency*). Those core beliefs cooperation (two egalitarian) show coalition which could make an egalitarian policy beliefs regarding advocacy coalition framework theory.

Consensus and disagreement between factors

Table 8. Consensus and disagreement between factor 1 and 2

No.	Statements	Type 1	Type 2	Difference
8.	Government provides enough information on the chemicals that are released to the environment during incinerator	0.534	-1.706	2.240
10.	There should be a campaign for reducing plastic bag usage	1.523	-0.569	2.092
6.	Local Government has provided enough training to citizens in waste management processing	0.722	-1.138	1.860
7.	Incinerator is the best system for managing waste disposal	0.000	-1.138	1.138
9.	Government has to force retailers to use non-plastic bag	0.534	-0.569	1.103

Table 9. Consensus and disagreement between factor 1 and 3

No.	Statements	Type 1	Type 2	Difference
22	Shame is the key to waste management effectiveness in Tokyo	1.350	-1.138	2.488
10	There should be a ca mpaign for reducing plastic usage	1.523	-0.569	2.092
11	Bureau of Environmental Tokyo Metropolitan need to develop new waste management technologies	1.523	0.000	1.523
7.	Incinerator is the best system for managing waste disposal	0.000	-1.138	1.138

Table 10. Consensus and disagreement between factor 1 and 4

No.	Statements	Type 1	Type 2	Difference
3.	Biodegradable waste should be composted and not incinerated.	1.350	-1.706	3.056
10.	There should be a campaign for reducing plastic bag usage.	1.523	-0.569	2.092
1.	3R Policies aren ot effectively practiced by Tokyo Residents.	0.173	-1.706	1.879
12.	Enforcement of waste management policies is effective in Tokyo	0.628	-1.138	1.766
11.	Bureau of environment Tokyo Metropolitan need to develop new waste management technologies	1.523	0.0000	1.523

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Table 11. Consensus and disagreement between factor 2 and 3

No.	Statements	Type 1	Type 2	Difference
21.	Homeless people in Tokyo should be employed in waste management practices.	1.706	-1.138	2.844
18.	Government should provide subsidy to industries to dispose waste.	1.138	-0.569	1.706
17.	The current waste management practices in Tokyo is not feasible for future long term plan.	1.706	0.000	1.706
22.	Shame is the key to waste management effectiveness in Tokyo.	0.568	-1.138	1.706
4.	All waste should be incinerated as processing of waste is cumbersome and expansive.	-0.569	-1.706	1.1.38

Table 12. Consensus and disagreement between factor 2 and 4

No.	Statements	Type 1	Type 2	Difference
3.	Biodegradable waste should be composted and not incinerated.	1.138	-1.706	2.844
20.	Government information is not enough for citizens on waste.	1.138	-1.138	2.275
18.	Government should provide subsidy to industries to dispose waste.	1.138	-0.569	1.706
21.	Homeless people in Tokyo should be employed in waste management.	1.706	0.000	1.706
1.	3R policies are not effectively practiced by Tokyo residen.	0.000	-1.706	1.706
17.	The current waste management practices in Tokyo is not feasible for future long term plan.	1.706	0.569	1.138
12.	Enforcement of waste management policies is effective in Tokyo.	0.000	-1.138	1.138

Table 13. Consensus and disagreement between factor 3 and 4

No.	Statements	Type 1	Type 2	Difference
3.	Biodegradable waste should be composted and not incinerated	0.569	-1.706	2.275
13.	Children from the age of 5 should be involved in community based waste management.	1.706	0.000	1.706

14.	School community based be involved for taking strategic decisions at the ward level on waste management.	1.706	0.000	1.706
5.	Ward offices are inducing stress on citizens by seeking multiple waste management processing.	0.0569	-1.138	1.706
20.	Government information is not enough for citizens on waste toxicity	0.569	-0.569	1.138
12	Enforcement of waste management policies is effective in Tokyo	0.000	-1.138	1.138
1.	3R policies are not effectively practiced by Tokyo residents	-0.569	-1.706	1.138

Identifying of Q sort Values for each statement from factor arrays.

Table 14. Q sort values for each statements

No.	Statements	Factor Array			
		1	2	3	4
1.	3R policies are not effectively practiced by Tokyo residents	0	0	-1	-3
2.	Composting biodegradable household waste is the responsibility of the ward office.	0	0	1	-1
3.	Biodegradable waste should be composted and not incinerated	2	2	1	-3
4.	All waste should be incinerated as processing of waste is cumbersome and expensive	-3	-1	-3	3
5.	Ward offices are inducing stress on citizens by seeking multiple waste separation processes	-1	-2	1	-2
6.	Local government has provided enough training to citizens in waste management processing	2	-2	2	2
7.	Incinerator is the best system for managing waste disposal.	0	-2	-2	0
8.	Government provides enough information on the chemicals that are released to the environment during incineration.	1	-3	-3	3
9	Government has to force retailers to use non-plastic bag as shopping bag.	1	-1	0	2
10.	There should be a campaign for reducing plastic bag usage.	3	-1	-1	-1

11.	Bureau of Environment Tokyo metropolitan need to develop new waste management technologies.	3	1	0	0
12.	Enforcement of waste management policies is effective in Tokyo	1	0	0	-2
13.	Children from the age of 5 should be involved in community based waste management	1	1	3	0
14.	School community should be involved for taking strategic decisions at the ward level on waste management practices.	0	0	3	0
15.	NGO community should bring crowd sourced information on illegal waste dumping	0	1	2	1
16.	Items (example: fashion goods, electronics items, clothing) which are not environmentally friendly should be banned even if they are branded.	-3	0	0	1
17.	The current waste management practises in Tokyo is not feasible for the future long term plan.	-1	3	0	1
18.	Government should provide subsidy to industries to dispose waste	-2	2	-1	-1
19.	The information provided by government on waste toxicity is sufficient and satisfactory.	-2	-3	2	1
20.	Government information is not enough for citizens on waste toxicity.	-2	2	1	-2
21.	Homeless people in Tokyo should be employed in waste management practices.	-1	3	-2	0
22.	Shame is the key waste management effectiveness in Tokyo	2	1	-2	2
23.	Bureau of Environment Tokyo metropolitan should increase more bin categories' rather than combustible and incombustible	-1	-1	-1	-1

Looking at table 8-13, which is Q sort values for each statement, we can classify them into three groups. There are statements with majority respondents agree (+), statements with majority respondents disagree (-) and the last statements with majority respondents neutral (o).

Statements with majority respondents agree:

1. Biodegradable waste should be composted and not incinerated.
2. Local government has provided enough training to citizens in waste management processing.
3. Children from the age of 5 should be involved in community based

waste management.

4. NGO community should bring crowd sourced information on illegal waste dumping.
5. Shame is the key waste management effectiveness in Tokyo.

Based of five statements that mostly agree by respondents, we can see that government should enhance other methods besides the one currently applied, for example: Biodegradable waste composting, involving and training citizen, include children to be familiar with waste management.

Statements with majority respondents disagree:

1. All waste should be incinerated as processing of waste is cumbersome and expensive.
2. Ward offices are inducing stress on citizens by seeking multiple waste separation processes.
3. There should be a campaign for reducing plastic bag usage.
4. Government should provide subsidy to industries to dispose waste.
5. Bureau of Environment Tokyo metropolitan should increase more bin categories' rather than combustible and incombustible.

Based of five statements that mostly disagree by respondents, we can see that government of Tokyo has to find alternative system of waste management since waste generation trend is decreasing. The government apply 3R (Recycle, Reduce and Reuse) policies in Tokyo therefore it can decrease garbage volume. This condition affects incineration processing disturbed and can expend dioxide.

Statements with majority respondents neutrals:

School community should be involved for taking strategic decisions at the ward level on waste management practices (Setiawan, 2019).

Based of one statement that neutral by respondents, we can see that government involving school community for taking strategic decisions.

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CONCLUSIONS

Regarding to the final results of the perspectives of respondents. We can conclude two things. First, based on the cultural theory, from the factors, we can see the typical and core beliefs as shown Table 15:

Tabel 15. Cultural theory, from the factors

Factors	Typical	Core Belief
1	Scientist that support government	Hierarchy + hierarchy
2	Civil society	Egalitarian with extreme view
3	Civil society that agree with government policy	Egalitarian with moderate view
4	Private industry that working for government	Individualist + Hierarchy

Second, from the respondent perspectives of the statements that the most agree, the most disagree and the neutral ones, we can find that: Waste management system based on incineration is not the best system. The government should complete the system or convert it into the environmental friendly ones.

The community school have not too significant roles in waste management system due to the government roles policy and shame culture in Japanese people and authority has sufficient influence.

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