

Study of the Development Potential of Geospatial-Based PSEL (Waste Processing into Electrical Energy) Areas

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Abstract

Since 1989, most of the waste processing in DKI Jakarta Province has ended at the Bantar Gebang TPST, causing the available capacity to accommodate waste to approach the maximum limit. One alternative processing that has a high level of efficiency in reducing the volume of waste is the PSEL (Waste to Electrical Energy Management) facility. Planning PSEL facilities in urban areas requires consideration from all aspects. While the space utilization in DKI Jakarta is quite dense and there are no practical guidelines in determining the location of PSEL facilities, it is necessary to conduct a comprehensive study, namely a study of the potential development of PSEL areas. The purpose of this study is to obtain the location and spatial pattern of the potential development of the PSEL area and obtain the characteristics of the area with the 'Recommended' category as the location of PSEL facility development. This study uses geospatial analysis with the quantitative Weighted Overlay method, where geospatial modeling is carried out by inputting the weight of each criterion (aspects that have an influence on determining the location of PSEL facilities) obtained from the results of the Fuzzy Analytic Hierarchy Process (FAHP) analysis assisted by a questionnaire tool. The results of the study obtained 2 (two) areas that have High Category status with a total area of 1.52 ha located in Cilincing District and Kelapa Gading District, North Jakarta with the condition that the first area occupies an improper designation zone (Industrial and Warehousing Zone) while the second area has a radius distance of less than 500 m to the nearest settlement and tourist location.

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INTRODUCTION

According to data from the Central Statistics Agency, Indonesia's population in mid-2022 will reach 275,773.8 thousand people with a population growth rate of 1.17% (Statistik, 2022). Indonesia's population is projected to reach 296,405 people in 2030 (Statistik, 2014). It cannot be denied that as time goes by, Indonesia's population will continue to increase. The increase in population is accompanied by an increase in urban waste production (Feyzi, Khanmohammadi, Abedinzadeh, & Aalipour, 2019). Annual Waste Production Data (Tons) from 2019 to 2021 shows that the top 5 provinces that have the most waste generation in Indonesia are East Java, Central Java, West Java, DKI Jakarta and South Sumatra (Farahdiba et al., 2023). If seen in 2021, the total waste generation in DKI Jakarta Province will reach 3 million tons, with the largest source of waste coming from East Jakarta with 836 thousand tons/year or 27.14% (Rizaty, 2022).

High waste generation is caused by waste handling that is not yet fully effective in reducing waste. Most waste handling in Indonesia, especially in DKI Jakarta, still uses the open dumping method. This method does not involve comprehensive handling of waste so the impact on the environment is quite large (Kementrian Energi dan Sumber Daya Mineral, 2015). The majority of waste handled in East Jakarta is sent to the Bantargebang Integrated Waste Disposal Site (TPST), which has been operating since 1985. The Bantargebang TPST

has reached a height of 50 to 60 meters. If converted into a building, the height of the trash mountain is equivalent to a 20-story building (Mutiah, 2023). This volume certainly has a negative impact on the surrounding environment in the form of unhealthy air and murky water (Hamdani, 2022).

So there is a need for waste management that can be the final treatment with the minimum impact possible. In recent years, a shift from landfill to burning/incinerator practices has been observed in many Asian, European, and American countries (Feyzi et al., 2019). The ability of the burning/incineration process to reduce the volume of waste and produce energy simultaneously makes it an attractive alternative compared to conventional landfill methods (Nabavi-Pelesaraei, Bayat, Hosseinzadeh-Bandbafha, Afrasyabi, & Chau, 2017). Most research shows that thermal method technology (incinerators) as a waste processing facility has superior value compared to other technologies because in the technical aspect, namely easy operation, the environmental aspect, namely reducing the volume of waste by up to 70-80% and the impact on public health is lower compared to processing landfill method. Apart from being a solution offered in reducing the volume of waste, the energy produced from thermal can be converted into electrical energy, where the energy efficiency level reaches 98.6% (Sarasati et al., 2021).

The DKI Jakarta Common Government through the DKI Jakarta Common Cleanliness Benefit is attempting to bargain with the squander issue by building alternative waste handling offices within the city. The preparing office alluded to is PSEL (Squander Administration into Electrical Vitality) based on ecologically inviting innovation with its portrayal based on directions. Presiden Republik Indonesia No. 35 concerning the Increasing speed of Advancement of Squander to Electrical Vitality Handling Establishments Based on Ecologically Inviting Innovation, to be specific "machines/equipment that can handle squander into electrical vitality, and decrease squander volume and preparing time essentially through naturally inviting and demonstrated innovation" (Damayanti, Waluyo, & Candrakirana, 2023). Through the Decree of the Head of the DKI Jakarta Environmental Service No. 732 of 2020 determines the Perumda Sarana Jaya service area to build waste processing in South Jakarta (zone 4) and East Jakarta (zone 2).

Population density and waste generation produced by the East Zone have higher values than the South Zone, giving a higher sense of urgency in conducting the study. So in this study, the waste source in the Jakarta East Zone service area is used as a study location, with the hope that the results of this study can be used as a reference in analyzing location suitability in the Jakarta South Zone service area and/or other service areas.

Reducing the volume of waste by establishing PSEL (Waste Management into Electrical Energy) with burning/incineration technology can reduce costs related to land requirements when compared to landfill waste management (Hassaan, 2015), because PSEL facilities require less land than TPST/TPA (Nabavi-Pelesaraei et al., 2017). Determining the PSEL area needs to be considered from an environmental, social and economic perspective so that it can operate effectively, efficiently and in accordance with applicable regulations (Wu, Wang, Hu, Ke, & Li, 2018). Decision making in the waste management sector involves several criteria (environmental, social, economic and technical criteria) which increase the complexity of the entire process. Therefore, in the decision-making process, the initiator generally arranges a hierarchy according to the priority of each criterion (Kazimieras Zavadskas, Baušys, & Lazauskas, 2015). Multi Criteria Decision Making (MCDM) techniques help solve complex problems that are difficult to handle consistently. This happens because of the large amount of information and the involvement of various criteria in decision making or the process of preparing the hierarchy (Qazi & Abushammala, 2020). MCDM methods are often implemented together with geographic information system (GIS)-based methods in site selection considerations because both methods have unique capabilities that complement each other (Kabak & Keskin, 2018). The integration of MCDM and GIS offers a powerful technique that facilitates any regional suitability determination process and offers an efficient way to manage solid waste systems, so this study uses a GIS-based method and the Fuzzy Hierarchical Analytical Process method as one part of MCDM in the PSEL

suitability study in the East Jakarta Service Area Zone (Bilgilioglu, Gezgin, Orhan, & Karakus, 2022).

In the modern era that emphasizes sustainability and environmental protection, it is quite worrying that there are no standard methods or standard guidelines recognized by the state for determining effective and efficient locations for establishing waste processing facilities into electrical energy, especially in the context of urban areas for the population. In the absence of clear guidelines, decision makers and parties involved in waste management can find themselves in a difficult situation. Because the absence of official guidelines creates uncertainty in the process of determining the location of PSEL facilities. Decision makers must consider various factors, such as environmental impacts, public safety, and existing infrastructure, without having a clear framework. Apart from that, the absence of standard guidelines also creates inequality between different regions in waste management. Some regions may take different approaches without having consistent national guidance.

In this situation, local communities can also feel the impact. They live in uncertainty regarding the environmental and social impacts of waste processing facilities that might be built in their area. They have no guarantee that the decisions taken by decision makers are the result of a structured and science-based process.

In the absence of state-recognized methods or guidelines, it is crucial for governments and experts in the field of waste management to work together to develop consistent and comprehensive guidelines. These guidelines must consider various aspects, from environmental impacts to the needs of local communities. In this way, sustainability and safety in waste management can be guaranteed, and local communities can live without uncertainty in the process of building waste processing facilities into electrical energy.

It is hoped that this research can be a method for determining decisions in selecting PSEL locations, especially in urban areas, based on the results of modeling and studying the characteristics of PSEL areas. It is hoped that the location, distribution and characteristics of PSEL locations as a result of this study can be taken into consideration in the management and utilization of space, especially in waste processing using PSEL facilities.

This research aims to examine the location and spatial pattern of PSEL areas based on geospatial modeling of PSEL areas in the East Zone of the Jakarta Service Area in DKI Jakarta Province. Examining the characteristics of the PSEL area based on geospatial modeling of the PSEL area in the East Zone Jakarta Service Area in DKI Jakarta Province.

RESEARCH METHODS

The research method applied is Quantitative Descriptive Research. This research was carried out through Data Collection steps which included a weighting process with FAHP, Environmental Component Modeling; Social Component Modeling; Economic Component Modeling; Geospatial Modeling of PSEL Area Suitability; and Analysis of the characteristics of High Category Areas in PSEL. The number of samples taken was approximately 5 respondents. After obtaining the results of the interviews and questionnaires which had been filled in by the respondents, the questionnaire results were then tabulated for validation testing with consistency testers. If inconsistent results are found, it is necessary to distribute the questionnaire again.

RESULTS AND DISCUSSION

Hypothesis 1:

"Service Quality Has a Positive Influence on Customer Satisfaction"

Simple Linear Regression Analysis

Table 1 Simple Linear Regression Test Results Hypothesis 1
Coefficients ^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	7,522	3,138		2,397	.017
Quality of Service	,733	,029	,864	25,442	,000

a. Dependent Variable: Customer Satisfaction

$$Y = 7.522 + 0.733X + \varepsilon$$

Based on the regression equation above, it can be explained as follows:

1. A consistent esteem of 7.522 shows that in the event that the autonomous variable, specifically Benefit Quality (X), includes a consistent esteem or zero, at that point the Client Fulfillment Variable (Y) is 7.522.
2. The relapse coefficient for the Service Quality variable (X) is positive at 0.733, which implies there's a unidirectional relationship between the two factors, so appears that for each 1 unit increment in Benefit Quality (X), expecting other factors are consistent, the Client Fulfillment variable (Y) increments by 0.733.

Hypothesis test

a. Partial Test (t Test)

The following results from the t test are presented in the table below:

Significant value

Ho: no effect

Ha1: influential

- Prob < 0.05 then Ho is rejected, and H1 is accepted
- **Prob > 0.05, Ho is accepted, H1 is rejected**

T value

- T count > t table, Ho is rejected
- **T count < t table, Ho is accepted**

Table 2 Hypothesis 1 T Test Results Coefficients^a

Model	t	Sig.
1 (Constant)	2,397	.017
Quality of Service	25,442	,000

a. Dependent Variable: Customer Satisfaction

Based on the table above, it can be explained as follows:

N: 222

K: 1

Df : nk = 222-1= 221

Ttable = 1.9707

The Service Quality variable (X) has a probability value of 0.000 < 0.05 and t count of 25.442 > 1.9707, meaning that Ho is rejected and H1 is accepted, namely the Service Quality variable (X) has a partially significant effect on Customer Satisfaction (Y).

b. Coefficient of Determination

Table 3 Test Results for the Determination Coefficient of Hypothesis 1 Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,864 ^a	,746	,745	2.89951	2,060

a. Predictors: (Constant), Quality of Service

b. Dependent Variable: Customer Satisfaction

Based on the obtained R-Squared value of 0.746 or 74.6 % . This indicates that the independent variable in this research, namely Service Quality (X), contributes to a significant influence on Customer Satisfaction (Y) of 74.6%, and the remaining 25.4% is explained by other variables.

Hypothesis 2:

Service Quality Has a Positive Influence on Customer Trust

Simple Linear Regression Analysis

Table 4 Simple Linear Regression Test Results Hypothesis 2
Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	,690	2,148		,321	,748
Quality of Service	,596	,020	,898	30,224	,000

a. Dependent Variable: Customer Trust

$$Y = 0.690 + 0.596X + \varepsilon$$

Based on the regression equation above, it can be explained as follows:

1. A constant value of 0.690 indicates that if the independent variable, namely Service Quality (X), is constant or zero, then the Customer Trust Variable (Y) is 0.690.
2. The regression coefficient for the Service Quality (X) variable is positive at 0.596, which means there is a unidirectional relationship between the two variables, so shows that for every 1 unit increase in Service Quality (X), assuming other variables are constant, the Customer Trust variable (Y) increases by 0.596.

Hypothesis test

a. Partial Test (t Test)

Table 5 Hypothesis 2 T Test Results
Coefficients^a

Model	t	Sig.
1 (Constant)	,321	,748
Quality of Service	30,224	,000

a. Dependent Variable: Customer Trust

Based on the table above, it can be explained as follows:

N: 222

K: 1

Df : nk = 222-1= 221

Ttable = 1.9707

The Service Quality variable (X) has a probability value of $0.000 < 0.05$ and t count of $30.224 > 1.9707$, meaning that H_0 is rejected and H_2 is accepted, namely the Service Quality variable (X) has a partially significant effect on Customer Trust (Y).

b. Coefficient of Determination

Table 6 Test Results for the Determination Coefficient of Hypothesis 2
Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,898 ^a	,806	,805	1.98437	1,908

a. Predictors: (Constant), Quality of Service

b. Dependent Variable: Customer Trust

Based on the obtained R-Squared value of 0.806 or 80.6 % . This indicates that the independent variable in this research, namely Service Quality (X), contributes to a significant influence on Customer Trust (Y) of 80.6%, and the remaining 19.4% is explained by other variables.

Hypothesis 3

"Trust Has a Positive Influence on Customer Satisfaction"

Simple Linear Regression Analysis

Table 7 Simple Linear Regression Test Results Hypothesis 3

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	19,513	3,325		5,868	,000
CUser trust	1,034	,051	,809	20,409	,000

a. Dependent Variable: Customer Satisfaction

$$Y = 19.513 + 1.034X + \varepsilon$$

Based on the regression equation above, it can be explained as follows:

1. A steady esteem of 19.513 demonstrates that on the off chance that the free variable, to be specific Client Believe (X), is consistent or zero, at that point the Client Fulfillment Variable (Y) is 19.513.
2. The relapse coefficient for the Client Believe (X) variable is positive at 1.034, which implies there's a unidirectional relationship between the two factors, so appears that for each 1 unit increment in Client Believe (X), accepting other factors are steady, the Client Fulfillment variable (Y) increments by 1.034.

Hypothesis test

a. Partial Test (t Test)

Table 8 Hypothesis 3 T Test Results

Model	t	Sig.
1 (Constant)	5,868	,000
CUser trust	20,409	,000

a. Dependent Variable: Customer Satisfaction

Based on the table above, it can be explained as follows:

N: 222

K: 1

Df : nk = 222-1= 221

Ttable = 1.9707

The Client Believe variable (X) features a likelihood esteem of $0.000 < 0 > 1.9707$, meaning that H_0 is rejected and H_3 is accepted, specifically the Client Believe variable (X) incorporates a mostly noteworthy impact on Client Fulfillment (Y).

b. Coefficient of Determination

Table 9 Results of Hypothesis 3 Determination Coefficient Test

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,809 ^a	,654	,653	3.38458	2,229

a. Predictors: (Constant), Customer Trust

b. Dependent Variable: Customer Satisfaction

R-Squared esteem of 0.654 or 65.4 % . This demonstrates that the free variable in this investigate, to be specific Client Believe (X), contributes to a critical impact on Client Fulfillment (Y) of 65.4%, and the remaining 34.6% is clarified by other factors.

Hypothesis 4

"Service Quality Has a Positive Influence on Behavioral Intention"

Simple Linear Regression Analysis

Table 10 Simple Linear Regression Test Results Hypothesis 4
Coefficients^a

Model	Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
1 (Constant)	3,445	1,536		2,243	.026
Quality of Service	,169	.014	,628	11,981	,000

a. Dependent Variable: Behavioral Intention

$$Y = 3.445 + 0.169X + \varepsilon$$

Based on the regression equation above, it can be explained as follows:

1. A consistent regard of 3.445 illustrates that on the off chance that the free variable, to be particular Advantage Quality (X), is unflinching or zero, at that point the Behavioral Intentional Variable (Y) is 3.445.
2. The backslide coefficient for the Advantage Quality variable (X) is positive at 0.169, which proposes there's a unidirectional relationship between the two variables, so shows up that for each 1 unit increase in Advantage Quality (X), anticipating other variables are unflinching, the Behavioral Intentional (Y) variable increases by 0.169.

Hypothesis test

a. Partial Test (t Test)

Table 11 Hypothesis 4 T Test Results
Coefficients^a

Model	t	Sig.
1 (Constant)	2,243	.026
Quality of Service	11,981	,000

a. Dependent Variable: Behavioral Intention

Based on the table above, it can be explained as follows:

N: 222

K: 1

Df : nk = 222-1= 221

Ttable = 1.9707

The Service Quality variable (X) has a probability value of $0.000 < 0.05$ and t count of $11.981 > 1.9707$, meaning that H_0 is rejected and H_4 is accepted, namely the Service Quality variable (X) has a partially significant effect on Behavioral Intention (Y).

b. Coefficient of Determination

Table 12 Test Results for the Determination Coefficient of Hypothesis 4
Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.628 ^a	.395	.392	1.41906	2,321

a. Predictors: (Constant), Quality of Service

b. Dependent Variable: Behavioral Intention

R-Squared value of 0.395 or 39.5 %. This indicates that the independent variable in this research, namely Service Quality (X), contributes to a significant influence on Behavioral Intention (Y) of 39.5%, and the remaining 60.5% is explained by other variables.

Hypothesis 5

"Customer Satisfaction Has a Positive Influence on Behavioral Intention"

Simple Linear Regression Analysis

Table 13 Simple Linear Regression Test Results Hypothesis 5
Coefficients^a

Model	Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
1 (Constant)	3,138	1,376		2,280	.024
Customer satisfaction	,214	.016	,676	13,595	,000

a. Dependent Variable: Behavioral Intention

$$Y = 3.138 + 0.214X + \varepsilon$$

Based on the regression equation above, it can be explained as follows:

1. A constant value of 3.138 indicates that if the independent variable, namely Customer Satisfaction (X), has a constant value or zero, then the Behavioral Intention Variable (Y) is 3.138.
2. The regression coefficient for the Customer Satisfaction variable (X) is positive at 3.138, which means there is a unidirectional relationship between the two variables, so shows that every time there is an increase in Customer Satisfaction (X) 1 unit assuming other variables are constant the Behavioral Intention variable (Y) increases by 3.138

Hypothesis test

a. Partial Test (t Test)

N: 222

K: 1

Df : nk = 222-1= 221

Ttable = 1.9707

Table 14 Hypothesis 5 T Test Results
Coefficients^a

Model	t	Sig.
1 (Constant)	2,280	.024
Customer satisfaction	13,595	,000

a. Dependent Variable: Behavioral Intention

The Client Fulfillment variable (X) encompasses a likelihood esteem of $0.000 < 0 > 1.9707$, meaning that H_0 is rejected and H_5 is accepted, specifically the Client Fulfillment variable (X) features a somewhat critical impact on Behavioral Purposeful (Y).

b. Coefficient of Determination

Table 15 Test Results for the Determination Coefficient of Hypothesis 5
Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.676 ^a	.457	.454	1.34475	2,045

a. Predictors: (Constant), Customer Satisfaction

b. Dependent Variable: Behavioral Intention

R-Squared esteem of 0.457 or 45.7 %. This appears that the free variable in this explore, particularly Client Fulfillment (X), contributes to a basic affect on Behavioral Intentional (Y) of 45.7%, and the remaining 54.3% is clarified by other variables.

Hypothesis 6

"Customer Trust Has a Positive Influence on Behavioral Intention"

Simple Linear Regression Analysis

Table 16 Simple Linear Regression Test Results Hypothesis 6
Coefficients^a

Model	Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
1 (Constant)	6,550	1,466		4,469	,000
CUser trust	,233	,022	,575	10,437	,000

a. Dependent Variable: Behavioral Intention

$$Y = 6.550 + 0.233X + \varepsilon$$

Based on the regression equation above, it can be explained as follows:

1. A consistent regard of 6.550 appears that in case the independent variable, to be particular Client Accept (X), is relentless or zero, at that point the Behavioral Intentional Variable (Y) is 6.550.
2. The backslide coefficient for the Client Accept (X) variable is positive at 0.233, which proposes there's a unidirectional relationship between the two variables, so shows up that for each 1 unit increase in Client Accept (X), anticipating other variables are consistent, the Behavioral Intentional variable (Y) increases by 0.233.

Hypothesis test

a. Partial Test (t Test)

N: 222

K: 1

Df : nk = 222-1= 221

Ttable = 1.9707

Table 17 Hypothesis 6 T Test Results
Coefficients^a

Model	t	Sig.
1 (Constant)	4,469	,000
CUser trust	10,437	,000

a. Dependent Variable: Behavioral Intention

The Client Believe variable (X) includes a likelihood esteem of $0.000 < 0 > 1.9707$, meaning that H_0 is rejected and H_6 is accepted, to be specific the Client Believe variable (X) encompasses a mostly critical impact on Behavioral Deliberate (Y).

a. Coefficient of Determination

Table 18 Hypothesis Determination Coefficient Test Results 6
Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,575 ^a	,331	,328	1.49182	2,266

a. Predictors: (Constant), Customer Trust

b. Dependent Variable: Behavioral Intention

R-Squared esteem of 0.331 or 33.1 % . This demonstrates that the autonomous variable in this investigate, specifically Client Believe (X), contributes to a critical impact on Behavioral Deliberate (Y) of 33.1%, and the remaining 66.9% is clarified by other factors.

Discussion

Based on the comes about of this investigate, it can be concluded that TikTok benefit quality incorporates a positive and noteworthy impact on buyer devotion. Typically upheld by the comes about of the speculation test which appears that the p-value for the relationship between benefit quality and customer devotion is littler than the importance esteem ($\alpha = 0.05$). TikTok benefit quality contributes 74.6 % to customer fulfillment. In line with investigate by analysts, which states that the administrations given to clients will give client fulfillment (Putri & Albari, 2024). This finding is also in line with customer satisfaction

theory and customer trust theory, which states that consumers who are satisfied with service quality tend to be more loyal to the company (Juwaini et al., 2022).

Besides, the benefit quality that has the foremost impact on buyer devotion is unwavering quality, taken after by responsiveness, completeness, information and openness. This appears that it is vital for TikTok to guarantee that its administrations are dependable, responsive, total, simple to get to, and backed by existing information and abilities.

Service quality moreover encompasses a noteworthy impact on client believe, with an impact commitment of 80.6 % . This appears that clients will have more believe and certainty in a company or stage in case they feel that the benefit given is of tall quality. This reflects the significance of astuteness, straightforwardness and consistency in giving services to clients.

The inquire about comes about too uncover that client believe incorporates a noteworthy influence on client fulfillment, with an impact commitment of 65.4%. This affirms that to attain tall levels of fulfillment, companies ought to not as it were offer quality items or administrations but too construct and keep up client believe. This believe can be built through steady benefit quality, responsiveness to issues, and viable communication.

Isolated from particularly affecting buyer constancy, TikTok advantage quality as well contributes to the course of action of client behavioral energetically, especially repurchase deliberate, area return to and word-of-mouth. Customers who are satisfied with the quality of TikTok's organizations tend to form go over buys, visit the TikTok location once more, and endorse TikTok to others. Advantage quality contains a positive affect on Behavioral Intentional (Y), and this affect is genuinely noteworthy. The affect commitment of 39.5% shows up that about 40% of the assortments or changes in behavioral deliberate can be clarified by assortments or changes in advantage quality. This can be in line with analysts who expressed that there's an impact of benefit on behavioral purposeful (Othman, Zahari, & Radzi, 2013). That is, when the quality of services offered by a company or platform improves, this tends to encourage or motivate customers or users to have stronger intentions to interact or behave further with the company or platform. This could be a desire to continue using the service, recommend it to others, or take other positive actions that are profitable for the company.

Not as it were that, when client fulfillment levels increment, this will empower or impact clients to have a more grounded deliberate to act in a way that underpins the company or stage. In other words, the more fulfilled clients are with a item or benefit, the more likely they are to have positive eagerly to require certain activities, such as repurchasing the item, prescribing it to others, or connection assist with the company (Cho, 2015).

The impact commitment of 45.7 % appears that nearly half of the variety or alter in behavioral deliberate can be clarified by the level of client fulfillment. Typically a strong sign that client fulfillment plays an awfully imperative part in forming their behavioral intentions. Therefore, to realize higher trade objectives, companies must center on endeavors to extend customer fulfillment. By guaranteeing that clients are fulfilled, companies not as it were keep up positive connections with them but also empower them to act in a positive way, which can eventually result in trade development and supportability.

Following, there's a positive relationship between client believe and behavioral deliberate. The impact commitment of 33.1 % demonstrates that around one third of the variety or alter in behavioral purposeful can be clarified by the level of client believe. In spite of the fact that this commitment is somewhat lower compared to client fulfillment, this still appears the significance of building and keeping up client believe in making positive behavioral eagerly (Fang et al., 2014).

Thus, the importance of paying attention to various service indicators that will be provided to customers will have a positive and good impact on sellers, in this case the quality of service provided by TikTok Shop is considered good by respondents (consumers), so the current quality needs to be maintained and highly allows it to be improved.

CONCLUSION

Based on the results of geospatial modeling using the weighted overlay method, assisted by the weighted values of the FAHP analysis results, the "Environmental" criterion is at the top with a value of 0.623, followed by the "Social" criterion with a value of 0.306, and the "Economic" criterion with a weighted value of 0.071. Of the total area, 0.01% or 1.52 ha is included in the High Category, 92.46% or 16,345.74 ha is included in the Medium Category, and 7.53% or 1,331.77 ha is included in the Low Category. Two areas with High Category status, located in Cilincing and Kelapa Gading Districts, North Jakarta, are theoretically recommended as potential locations for developing PSEL facilities.

Areas with High Category status require special consideration at further planning stages. High Category 1 areas are in Industrial and Warehouse Zones, requiring special permits and communication with the government. High Category 2 areas are located close to residential and tourist sites, which makes obtaining approval to build and operate PSEL facilities a challenge. Licensing processing can be made easier by choosing the right technology and management, as well as prioritizing the environment and surrounding ecosystem. This study is expected to provide useful information for decision makers in the planning stage of installing PSEL facilities in the East Jakarta Zone, DKI Jakarta Province.

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