Actor-Based Regional Development Strategy in Metropolitan Rebana

(Case Study: Majalengka District, Cirebon District and Cirebon City)

Eko Fajar Setiawan(✉) and Suhirman

Bandung Institute of Technology, Bandung, Indonesia
24021021@mahasiswa.itb.ac.id

Abstract. This study aims to examine stakeholder mapping. This study uses a qualitative approach through in-depth interviews with experts/experts and measuring questionnaires which are then developed as expert judgment to assess the pattern (dependence and independence) of the relationship between interest actors in the Rebana Metropolitan Area. Qualitative analysis, developed through the statistical model Interpretative Structural Modeling (ISM) with the hope of being able to identify key actors, and patterns of relationships. It is hoped that this research will be able to provide an actor-based regional development strategy in the Rebana Metropolitan Area through the recommendation of the actor's interest level structure based on the components of the regional readiness assessment developed.

Keywords: Expert Judgment · Interpretative Structural Modeling · Metropolitan Tambourine · Actor Level Structure

1 Introduction

The development of metropolitan areas and national strategic areas is one of the government's strategies to foster regional growth, create new centers/cities, build infrastructure equity with the hope of creating a trickle down effect for the surrounding areas [1]. The new Rebana Metropolitan Area (Cirebon-Patimban/Subang), and within it Kertajati Aerocities, is a direction and strategy for urban development in the northern part of West Java, to address the problem of inequality in the northern region of West Java. Through Presidential Decree 87 of 2021, the Rebana Area covers Cirebon Regency, Subang Regency, Cirebon City, Majalengka Regency, Sumedang Regency, and Kuningan Regency. The Rebana area will be directed as a regional activity center (PKW) to reduce the burden on the Greater Bandung Metropolitan and Jabodetabekpunjur Megapolitan. Directions to answer this vision, special economic zones are planned in the Kertajati (Majalengka), Patimban (Subang) and Ujungjaya- Buah Dua - Tomo/Butom (Sumedang) regions.

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With an area of approximately 20,000 ha, the Rebana Triangle Core Area [2]. Kertajati Aerocity is a mixed-use-based development area of 3,480 ha which is located adjacent to Kertajati Airport with the hope that it will become a growth center for the birth of new areas in the North Coast region of West Java. Based on current information, approximately 50% of the planned development will consist of industrial and warehouse areas and the remainder will be a mix of residential, commercial and community related facilities. It consists of Business Park I, Business Park II, Energy Center, Aerospace Park, Logistics Hub and Creative Technology Center which are equipped with housing, hospitals, shopping centers, offices and other supporting facilities. Kertajati Aerocity is managed by PT BIJB under a subcontract. PT BIJB has not provided official information regarding the final completion of the development of Kertajati Aerocity (3,480 Ha), but they are confident that in 2032 the first stage of Kertajati Aerocity (Business park I) can be completed. The Kertajati Aerocity development project is targeted for completion in 2027. The Kertajati Aerocity developer (PT BIJB) acquired 200 Ha (from a planned 3480 Ha) of land for Kertajati Aerocity in 2021, but it seems difficult because land prices have skyrocketed by land speculators.

In achieving the target of developing the surrounding area, there are dynamics of actors/stakeholders so that interactions between actors and patterns of actor relationships are biased. This research was able to examine regional development components, assess the relationship between actors and was able to recommend an actor-level structure based on the MicMac ISM diagram which was processed through the components of regional readiness assessment from experts/experts. Thus, this study will examine the actors and components of regional readiness that influence each other and depend on regional readiness.

2 Methods

The research locations are Majalengka Regency, Cirebon Regency and Cirebon City with the consideration that these areas are new nodes (hubs) of traffic movement (land and air) and centers (centers) of the development of new areas (Kertajati Aerocities and Rebana Metropolitan Area) West Java. Researchers use statistical modeling analysis of interested actor mapping using MicMac ISM (Interpretative Structural Modeling) quadrant analysis.

Collecting data using in-depth interview techniques with experts/experts, then synthesizing it into a closed questionnaire assessment using a checklist (v) on the measurement of regional readiness components aimed at experts, we get indicators of these components, namely a) availability of supporting and supporting infrastructure, b) Optimization of Production Factors around the area, c) Regulation and institutional support, d) Cooperation and market access (global supply-chain), e) Incentives and ease of doing business, f) Consideration of the Human Development Index, g) Consideration of the regional economy, h) environmental quality factor limitations. Of the eight component indicators, ten (10) actors have had a significant influence on the readiness of Metropolitan Rebana including BIJB, Ministry of Transportation, Ministry of Industry, Ministry of Tourism, Governor, PT Angkasa Pura 2, Banking, BKPM, Majalengka/ Cirebon/City Regency Government Cirebon, Travel Agency/ Association of MSMEs and BUMDes.

2.1 ISM (Interpretative Structural Modeling) Analysis

Interpretative Structural Modeling (ISM) is a modeling technique developed for decision making [3]. ISM was first created by J. Warfield in 1973, where Warfield developed complex patterns of relationships between various elements involved in complex situations [4]. ISM is a sophisticated planning methodology for identifying and inferring various kinds of relationships between factors in a particular problem or issue, including in actor-network relations [5]. The first thing to do is discussion with experts (*brainstorming*) or expert judgmental to gather ideas or parameters to become the basis for the model for developing a network of actors with an interest in the development of the Rebana area. From the discussion regarding the development strategy, several ideas or variables were obtained that would be processed using ISM. The first step of ISM is to design a *Structural Self Interaction Matrix* (SSIM), so that relationships are structured contextual by making one variable *i* and variable *j*. Next is to make a *reachability matrix* (RM) by changing V, A, X and O with the numbers 1 and 0. The final step is to design a *Canonical Matrix* to determine levels through iteration. After there are no more *intersections*, a model is created which is produced by ISM which is a model for the actor network for the development of the Rebana Metropolitan Area. From this model, a *road map* for institutional development (*level*) will be created.

2.2 Relations Between Elements in ISM

According to the Transivity *Rule* where a correction is made to the SSIM until a new matrix occurs closed. SSIM modification requires input from panelists/experts, with special notes given so that attention is shown only to certain sub-elements (see Table 1) [3].

Next, look for *the Reachability Matrix* with the prerequisites of fulfilling the Transivity Rule, namely determining the *level partition.* Processing is tabular by filling in the format. Based on the choice of level, a schematic description of each element according to vertical or horizontal levels can be described. For various sub-elements in an element based on RM*, Driver-Power-Dependence is arranged.* The sub-element classification is presented in the following 4 sectors [3]:

Sector 1: *Weakdriver-weak dependent variables* (*AUTONOMOUS*). Changes in this sector are not related to the system, and tend to have a fairly strong relationship.
Sector 2: *Weak driver-strongly dependent variables* (DEPENDENT). Generally changes here are not free.
Sector 3: *Strong driver-strongly dependent variables* (*LINKAGE*). Variables in this sector must be studied because the relationship between variables is unstable. Each action will have an impact on others and feedback, and allow for greater impact.
Sector 4: *Strong drive weak dependent variables* (*INDEPENDENT*). The variables in this sector are the remaining part of the system and are called independent variables.

To build the model, the researcher conducted *brainstorming and expert judgment, along with* in-depth *interviews* with the intended experts, to then receive input and revise the model periodically. Several literatures and studies related to actors in the development of the Rebana metropolitan area.

Table 1. Interrelationships between sub-elements in the ISM technique.

No.	Type	Interpretation
1.	Comparison (*Coperative*)	**.** A is more important/big/beautiful, than B
		. A is an attribute of B
2.	Statement (*Definitive*)	. A is included in B
		. A means B
		. A causes B
		. A is the cause of B
3.	Influence (*Influence*)	. A develops B
		. A moves B
		. A increases B
		. A is south/north B
4.	Space (*Spirals*)	. A over B
		. A to the left of B
		. A precedes B
5.	Time (*Temporate/Time Scale*)	. A follows B
		. A has more priority than B

2.3 Identification of the Variable Components of the Relationship Between Actors

Before modeling the ISM, the component of actor relations was extracted from the expert judgment of ten (10) people with details including academics from ITB (2 people), *2* experts/bureaucrats (Bappeda Jabar, BKPM), *2* people from business practitioners from HIPMI circles West Java (1 person), ASITA West Java (1 person), 4 actors (BUMDes/Medium Industry/KADIN) located in West Java. Collected, forty- five (45) independent variable components that have been extracted as modifiers/determinants (linkages) on the readiness of actors for the development of the Rebana area. Apart from collecting expert judgment indicators, there are also ten (10) actors involved in developing the area there (see Table 2).

3 Results and Discussion

3.1 Analysis of the ISM Actor Network for the Development of the Rebana Metropolitan Area

Structural Self-interaction Matrix. By using the components extracted by expert judgment who know the readiness of regional development, a measurement component based on the VAXO criteria is realized (see Fig. 1).

Table 2. Components between elements, actors and roles.

No	Component	Influential actor	Judgment reference
1	Life expectancy	Pemkab (Majalengka/Cirebon), Governor	[6]
2	Health Index	Pemkab (Majalengka/Cirebon), Governor	[6]
3	Average Years of School	Pemkab (Majalengka/Cirebon), Governor	[6]
4	School Hope	Pemkab (Majalengka/Cirebon), Governor	[6]
5	Reading Literacy Rate	Pemkab (Majalengka/Cirebon), Governor	[6]
6	Gross Enrollment Rate	Pemkab (Majalengka/Cirebon), Governor	[6]
7	Road stability	Ministry of Transportation, Pemkab (Majalengka/Cirebon), Governor	[7]
8	Electrification ratio	Governor, BKPM	[7]
9	Drinking water service	Governor, BKPM	[7]
10	Good irrigation	Pemkab (Majalengka/Cirebon), Governor	[7]
11	Protected area	Governor, Pemkab (Majalengka/Cirebon), Ministry of Industry	[1]
12	One stop service	Ministry of Industry, Banking, BKPM, Governor	[8]
13	Procurement of Infrastructure through government support	BIJB, PT Angkasa Pura (AP 2), BKPM, Ministry of Tourism	[7]
14	Ease of service and licensing	BKPM, PT AP 2, BIJB	[8]
15	Provision of data and investment opportunities	BKPM, Governor, Pemkab	[9]
16	Provision of sarps	Ministry of Tourism, PT AP 2, BIJB, Ministry of Transportation, Governor, Regency Government	[10]
17	Provision of land and location	PT AP 2, BIJB, Pemkab (Majalengka/Cirebon)	[7]

(*continued*)

Table 2. (*continued*)

No	Component	Influential actor	Judgment reference
18	Providing technical assistance	Ministry of Tourism, PT AP 2, BIJB, Ministry of Transportation, Governor, Regency Government	[11]
19	Tax exemption	Ministry of Tourism, PT AP 2, BIJB, Ministry of Transportation, Governor	[7, 10]
20	Providing stimulant funds	Ministry of Tourism, PT AP 2, BIJB, Ministry of Transportation, Governor, Banking	[10]
21	Provision of capital assistance	Ministry of Tourism, PT AP 2, BIJB, Ministry of Transportation, Governor, Banking	[7, 10]
22	Link & Match Upstream-Downstream Industry	Ministry of Industry, BKPM, Governor, Regency Government, Travel Agency/ UKM Association	[10]
23	High dependence on imported raw materials	Ministry of Industry, BKPM, Governor, Regency Government, Travel Agency/ UKM Association	[9, 10]
24	Wage rate	Governor, Ministry of Industry, Pemkab	[9, 10]
25	Acquisition of smart technology	BIJB, PT AP 2, Ministry of Transportation, Ministry of Tourism, Association of BUMDes/ UKM Actors, Governor	[9]
26	Low price competitiveness	BKPM, Ministry of Industry, Pemkab	[12]
27	Industrial HR Specialization	BKPM, Ministry of Industry, Pemkab, BIJB	[13]
28	The structure of the population is dominated by the age of the productive workforce	Governor, BKPM, Ministry of Industry, Ministry of Tourism, Association of UKM/Bumdes Actors, Travel agencies	[12–14]
29	Tax allowance incentives	BKPM, Ministry of Industry	[10]

(*continued*)

Table 2. (*continued*)

No	Component	Influential actor	Judgment reference
30	Indonesia's corporate tax rate is the third highest in ASEAN	BKPM, Ministry of Industry	[13]
31	The perfect licensing platform	BKPM, Ministry of Industry, Governor	[10]
32	Opportunities and values of thematic special economic zones	BIJB, PT AP 2, Ministry of Tourism, Ministry of Transportation, Governor	[7, 14]
33	Diversification of industry-based research products is still low	Ministry of Tourism, BIJB, BUMDes/IKM Actors Association, Governor	[14, 15]
34	The highest contributor to national exports	PT AP 2, BIJB, Ministry of Tourism	[14, 15]
35	The highest contributor to FDI nationally	PT AP 2, BIJB, Ministry of Tourism	[14, 15]
36	The highest contributor to the national manufacturing industry	BKPM, Pemkab	[14, 15]
37	The highest contributor to the realization of national investment (PMDN)	BKPM, Pemkab	[14, 15]
38	The share of the manufacturing industry dominates nationally	BKPM, Ministry of Industry, Ministry of Tourism, Pemkab	[14, 15]
39	Disaster vulnerability index	Ministry of Transportation, Ministry of Tourism	[1]
40	Air pollution indicator	BIJB, PT AP2, Ministry of Tourism	[15]
41	Waste generation problem	Ministry of Transportation, Ministry of Tourism, Regency Government, Governor	[15]
42	RTH availability	Ministry of Tourism, PT AP 2,	[1, 15]
43	Poverty level	Banking, BUMDes/ UKM Actors Association	[7, 15]
44	Open Unemployment Rate	Ministry of Industry, Ministry of Tourism, BUMDes/ UKM Actors Association, BIJB, Banking	[7, 15]

(*continued*)

Table 2. (*continued*)

No	Component	Influential actor	Judgment reference
45	Incubation Institution Support / Product Assistance	Ministry of Tourism, BKPM, BUMDes/ UKM Actors Association, Banking, Ministry of Industry, Governor, Regency Government	[11, 15]

Four key categories are used to represent the direction of the relationship between a set of components (i and j), where:

a. V indicates that the actor component i affects the readiness of the actor (j);
b. A indicates that the component of actor j affects the readiness of actor (j)
c. X indicates that component/actor i influences the readiness of actor (j) and conversely the readiness of actor (j) influences component i, or in other words there is a mutual influencing relationship between actors i and j;
d. O indicates that actors i and j are not related to each other

Reachability Matrix. The reachibility matrix is obtained from the structural self-interaction matrix (SSIM) using a two-step process (see Fig. 2). In the first step, the alphabet used to indicate the relationship between components in SSIM is replaced with

No	Komponen Hubungan	Identifikasi Kekuatan Aktor (VAXO)									
		BIJB (A1)	Kemenperin (A2)	Kemenhub (A3)	Kemenpar (A4)	PT AP (A5)	Perbankan (A6)	BKPM (A7)	Pemkab (A8)	Travel/ UMKM (A9)	Gubernur (A10)
1	Angka Harapan Hidup	O	O	O	V	O	X	X	V	A	V
2	Indeks Kesehatan	A	V	A	V	A	O	X	V	X	V
3	Rataan Lama Sekolah	O	A	O	X	O	X	X	V	A	V
4	Harapan Sekolah	O	V	O	V	A	V	V	V	X	V
5	Angka Melek Baca	V	X	X	V	X	X	X	V	X	V
6	Angka Partisipasi Kasar	O	O	A	V	A	V	X	V	X	V
7	Kemantapan jalan	A	X	V	X	X	A	X	V	X	V
8	Rasio elektrifikasi	A	X	V	X	X	A	X	V	X	V
9	Pelayanan air minum	A	A	A	A	A	X	X	V	A	V
10	Irigasi baik	A	A	A	A	A	X	X	V	A	V
11	Kawasan lindung	O	X	X	A	O	A	V	V	X	V
12	Pelayanan Terpadu satu pintu	V	X	X	V	A	X	V	V	O	V
13	Pengadaan Infrastruktur melalui dukungan pemerintah	A	V	X	V	V	V	X	V	V	V
14	Kemudahan pelayanan dan perizinan	V	A	V	X	V	X	X	V	X	V
15	Penyediaan data dan peluang investasi	V	A	O	V	O	V	V	X	V	X
16	Penyediaan sarpras	A	V	V	X	V	X	X	V	A	V
17	penyediaan lahan dan lokasi	V	V	V	X	X	V	V	V	O	V
18	Pemberian bantuan teknis	X	A	V	V	O	V	V	V	V	V
19	Pembebasan pajak	V	V	X	V	X	X	X	V	V	V
20	Pemberian dana stimulan	V	A	X	V	V	V	X	V	V	V

Fig. 1. Measurement of relationship components based on expert judgment.

No	Komponen Hubungan	Identifikasi Kekuatan Aktor (VAXO)									
		BIJB (A1)	Kemenperin (A2)	Kemenhub (A3)	Kemenpar (A4)	PT AP (A5)	Perbankan (A6)	BKPM (A7)	Pemkab (A8)	Travel/ UMKM (A9)	Gubernur (A10)
21	Pemberian bantuan modal	O	A	X	V	V	V	X	V	V	V
22	Link & Match Hulu- Hilir Industri	O	X	V	X	O	A	X	O	A	O
23	Tingginya ketergantungan terhadapbahan baku impor	O	V	V	A	A	A	X	O	O	O
24	Tingkat upah	V	A	A	X	V	A	X	X	V	X
25	Akuisisi teknologi smart	V	X	V	V	V	X	V	X	A	X
26	Rendahnya daya saing harga	O	V	V	A	O	A	A	V	V	V
27	Spesialisasi SDM Industri	V	V	V	X	X	V	V	X	X	X
28	Struktur penduduk yang didominasi usia tenaga kerja	X	A	A	X	X	V	V	V	V	V
29	Insentif tax allowance	O	V	O	X	O	A	A	X	O	X
30	Tarif pajak korporasi Indonesia tertinggi ketiga se Asean	X	X	A	V	V	X	A	A	X	A
31	Platform perizinan yang sempurna	O	V	X	V	O	X	V	X	A	X
32	Peluang dan nilai kawasan ekonomi khusus tematik	A	V	V	A	V	V	V	V	X	V
33	Diversifikasi produk riset berbasis industri yang masih	A	V	A	X	A	X	A	V	V	V
34	Kontributor tertinggi ekspor nasional	V	A	A	X	A	A	V	V	A	V
35	Kontributor tertinggi PMA se nasional	X	A	A	X	A	A	V	V	A	V
36	Kontributor tertinggi Industri manufaktur nasional	A	A	A	X	A	A	V	V	A	V
37	Kontributor tertinggi realisasi Investasi nasional (PMDN)	V	A	A	X	A	A	V	V	A	V
38	Pangsa Industri manufaktur mendominasi se Nasional	X	V	A	V	A	A	V	V	A	V
39	Indeks kerawanan bencana	O	X	V	V	X	X	O	O	X	O
40	Indikator cemaran udara	V	A	V	V	V	X	O	A	X	A
41	Persoalan timbulan sampah	O	X	V	V	A	X	O	V	X	V
42	Ketersediaan RTH	X	X	X	V	V	A	O	X	X	X
43	Tingkat kemiskinan	O	X	A	A	O	V	X	X	V	X
44	Tingkat Pengangguran Terbuka	V	V	A	A	O	V	X	X	V	X
45	Dukungan Lembaga Inkubasi/ Pendampingan Produk	A	V	O	V	O	V	X	V	X	V

Fig. 1. (*continued*)

"0" or "1". The value in the *reachability matrix* depends on the type of relationship in SSIM [16] and is summarized in the following relationship:

1. If the relationship between the components in a row is "V", then in the initial reachibility matrix, the row entry will be "1" while the column entry between these two components will be "0";
2. Components in rows and columns are represented by the letters i and j, respectively. Thus, each component pair is analyzed separately after grid formation, which is obtained in the above process. Four keywords are used to represent the direction of the relationship between a set of components (i and j), where:

a. V indicates that component i affects variable/actor j;
b. A indicates that variable j affects variable/actor i;

Aktor	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10
	BIJB	Kemenperin	Kemenhub	Kemenpar	PT AP 2	Perbankan	BKPM	Pemkab	Travel/ UMKM	Gubernur
BIJB		O	V	X	V	X	V	X	X	A
Kemenper			A	V	V	V	V	V	V	V
Kemenhu				V	V	V	V	O	O	X
Kemenpar					V	V	V	V	O	X
PT AP 2						X	V	V	A	A
Perbankan							A	A	V	X
BKPM								V	V	X
Pemkab									X	V
Travel/ UMKM										V
Gubernur										

Fig. 2. Structural Self-Interaction Matrix (SSIM).

c. X indicates that variable i affects variable/actor j and conversely variable j influences variable i, or in other words there is a mutually influencing relationship between variable i and variable/actor j;
d. O indicates that variable i and actor (j) are not related to each other.

MICMAC Quadrant Analysis. The basis of this classification is 'driving power' and 'dependence power' which are calculated in the final reachibility matrix (see Fig. 3). In

Aktor	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	Driving Power
	BIJB	**Kemenperin**	**Kemenhub**	**Kemenpar**	**PT AP 2**	**Perbankan**	**BKPM**	**Pemkab**	**Travel/ UMKM**	**Gubernur**	
BIJB	1	0	1	1	1	1	1	1	1	1	9
Kemenperin	0	1	0	1	1	1	1	1	1	1	8
Kemenhub	0	1	1	1	1	1	1	1	1	1	9
Kemenpar	1	0	0	1	1	1	1	1	1	1	8
PT AP 2	0	0	0	0	1	1	1	1	1	1	6
Perbankan	1	0	0	0	1	1	0	0	1	1	5
BKPM	0	0	0	0	0	1	1	1	1	1	5
Pemkab	1	0	0	0	0	1	0	1	1	1	5
Travel/ UMKM	1	0	0	0	1	0	0	1	1	1	5
Gubernur	1	0	1	1	1	1	1	0	0	1	7
Dependence Power	6	2	3	5	8	9	7	8	9	10	

Fig. 3. Final matrix.

addition, MICMAC analysis can be used to examine direct and latent relationships among enablers derived from ISM techniques (see Fig. 4). Thus, based on 'driving power' and 'dependence power', the enablers in this study are classified into four groups, as shown and explained below:

1. Autonomous variable (Quadrant I) means that these actors have no influence and lack independence. In this study, the actor was not identified
2. Dependent variable (Quadrant II) means that this actor has a weak power of influence but has independence. In this study, the actor was not identified
3. The Linkage Variable (Quadrant III) has a significant meaning that this actor has high influence and high independence. In this study, seven (7) actors are included in quadrant III, including BIJB, PT AP 2, Banking, BKPM, Regency Government, Travel agency/MSME Association, Governor
4. Independent Variable (Quadrant IV) means that actors have high power of influence but have weak independence. They represent Quadrant IV. In this study, there are three (3) independent actors including the Ministry of Transportation, the Ministry of Tourism, and the Ministry of Industry

Graph of Actor Levels and Development Scenarios. After knowing the final matrix and actor quadrants, the researcher then developed the visualization of important actors, influential in the development of the Rebana metropolitan area based on the actor level graph. There are five (5) levels of actors, from key actors (important, influential) to actors who are considered to have less contribution to regional development. From the research results, it was found that BIJB (A1) and the Ministry of Transportation (A3) played an important role in realizing the Rebana Metropolitan Area (see Fig. 5).

Based on the actor level graphs, the researcher attempted to synthesize the actor levels, the actors involved, and recommendations for priority locations and alternative activity locations by *expert judgment* so that they became a matrix of actor-based development scenarios with the following results (see Table 3).

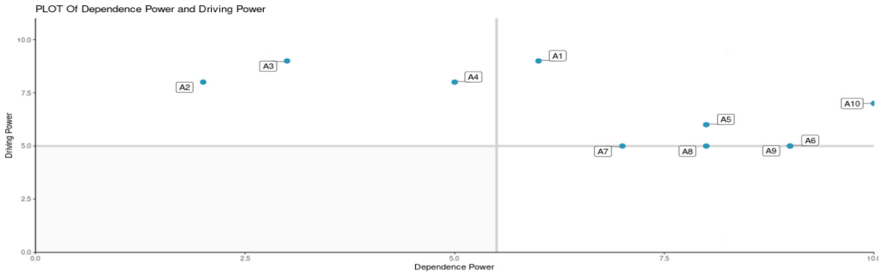

Fig. 4. MicMac analysis graph.

Fig. 5. Level of interest actors in the Rebana Metropolitan Area

Table 3. Synthesis of actor-based regional development strategies.

Actor Intervention Level	Identified Actor	Most Influential Measurement Component Indicator	Form of Development Strategy	Priorities and Alternative Locations of Activity Strategy
I	BIJB	Availability of Supporting and Supporting Infrastructure (Airport). Optimization of Production Factors around the area	Acceleration of development and addition of cargo logistics facilities and warehouses (goods storage) towards IoT/Smart Logistics-based services Acceleration of the construction of hajj dormitories or haj ritual activity centers in Majalengka/Cirebon	Location Priority: Majalengka Regency Alternative: Cirebon Regency (1) Cirebon City (2)
	Ministry of Transportation	Institutional Regulation and Support	Regulations limiting Cargo capacity in Soetta and fully diverted from Soetta Airport to Kertajati Airport	Location Priority: Majalengka Regency Alternative: Cirebon Regency (1) Cirebon City (2)
II	Ministry of Industry	Cooperation and Market Access Incentives and Ease of Doing Business	Establishment or standardization of polytechnics/ vocational skills for skilled workers in the machinery industry, manufacturing and agricultural technology Post-harvest technology facilitation and export facilitation for UMKM/BUMDes	Location Priority: Majalengka Regency, Cirebon Regency Alternative: Cirebon City (2)

(*continued*)

Table 3. (*continued*)

Actor Intervention Level	Identified Actor	Most Influential Measurement Component Indicator	Form of Development Strategy	Priorities and Alternative Locations of Activity Strategy
	Ministry of Tourism	Institutional Regulation and Support	Designing a tourist calendar with the direction of service tourism, and international or national pilgrimage/traditional tourism Service integration of tourist villages (tour packages)	Location Priority: Cirebon Regency Alternative: Majalengka Regency (1) Cirebon City (2)
III	Governor	Incentives and Ease of Doing Business HDI and regional economic considerations Limitation of environmental quality factors	Regulation of certainty for investors to get clear & clean land Audit of performance outcomes, graduates and SMA/SMK curriculum in the Rebana Metropolitan Area and Kertajati Aerocitiy BLK Plus (Improving competency upgrading and reskill services at regional job training centers) Recovery of ex-mining areas in the North region and improvement of waste management around the Rebana / Kertajati Aerocities Area Improvement of district roads	Location Priority: Majalengka Regency, Cirebon Regency and Cirebon City

(*continued*)

Table 3. (*continued*)

Actor Intervention Level	Identified Actor	Most Influential Measurement Component Indicator	Form of Development Strategy	Priorities and Alternative Locations of Activity Strategy
IV	PT Angkasa Pura II	Availability of Supporting and Supporting Infrastructure (Airport). Incentives and Facility	Ease of service, and provision of incentives (discounts/promos) to exporters and logistics/cargo plane expeditioners Development of flight routes with various modes/types of small aircraft (ex: susi air planes) to reach markets to small airports The realization of Kertajati Airport as Hajj Airport and International Cargo Airport Access to product promotions for local MSMEs so they can export Development of new business units in the aspect of providing sanitary/hygiene infrastructure for agricultural products	Location Priority: Majalengka Regency, Cirebon Regency and Cirebon City
V	Banking	Incentives and Ease of Doing Business	Facilitation (KUR) for export/added agricultural actors Facilitation of People's Business Credit (KUR) for tourism service actors in the culinary, craft, fashion and performing arts sectors	Location Priority: Majalengka Regency, Cirebon Regency Alternative: Cirebon city
	BKPM	Cooperation and Market Access	Optimizing promotional activities abroad by offering a product portfolio and business schemes in the Kertajati Aerocities and / Metropolitan Rebana Areas Field assistance for the acceleration of NIB (OSS), product legality and facilitation of capital costs for MSME players and export-oriented farmers	Location Priority: Majalengka Regency, Cirebon City Alternative: Cirebon Regency (2)

(*continued*)

Table 3. (*continued*)

Actor Intervention Level	Identified Actor	Most Influential Measurement Component Indicator	Form of Development Strategy	Priorities and Alternative Locations of Activity Strategy
	District government	HDI (Human Development Index) Considerations Limitation of environmental quality factors	Audit of performance outcomes, graduates and SMA/SMK curriculum in the Rebana Metropolitan Area and Kertajati Aerocitiy Acceleration of Household WWTP Development and Zero Defecation Free Strengthening disaster-resilient communities in the REBANA and Kertajati aerocities areas	Location Priority: Majalengka Regency Alternative: Cirebon Regency (1) Cirebon City (2)
	Travel Agency/ Association of MSMEs and BUMDes	Optimization of Production Factors around the area	Development of new routes (rural transportation) inside or outside the Area area Increasing the quality and quality of production Socialization of the use of cargo for distribution of products between countries	Location Priority: Majalengka Regency, and Cirebon City Alternative: Cirebon Regency (1)

4 Conclusion

The development of the Rebana Metropolitan Area, as a new urban area in the North Java region, involves a cross-stakeholder actor including the regional developer stakeholder, Kertajati Aerocities in Majalengka. Through *expert judgment*, eight (8) component indicators / dependent variables were obtained as models to influence the realization of the development of Kertajati and Metropolitan Rebana through Interpretative Structural Modeling (ISM) analysis. This study contained forty- five (45) independent variable components as parameters and identified 10 important and influential actors on the realization of the development of Kertajati and Metropolitan Rebana. The component indicators are a) availability of supporting and supporting infrastructure, b) Optimization of Production Factors around the area, c) Regulation and institutional support, d) Cooperation and market access (global supply-chain), e) Incentives and ease of doing business, f) Human Development Index considerations, g) Regional economic considerations, h) limitations on environmental quality factors.

Based on the *Micmac Interpretative Structural Matrix quadrant analysis*, all development actors in the Kertajati Aerocities and Metropolitan Rebana Regions are dependent on each other in quadrants I and quadrants II. Furthermore, there are seven (7) actors

included in quadrant III, including BIJB, PT AP 2, Banking, BKPM, Regency Government, Travel agency/MSME Association, Governor indicating that these actors have high power of influence and low dependence on develop area. Meanwhile, there are three (3) actors in quadrant IV including the Ministry of Transportation, the Ministry of Tourism, and the Ministry of Industry. Actors in quadrant IV have high power of influence but have a high dependency on the independent variable components. Thus all actors mutually have an effective influence on regional growth.

Meanwhile, according to the analysis of actor-level plot graphs, it shows that the most important levels (key actors) in regional development in Kertajati and the Rebana Metropolitan Area are shown by BIJB actors and the Ministry of Transportation (Level I), the Ministry of Industry and the Ministry of Tourism (Level 2), the Governor (Level 3), PT Angkasa Pura 2 (Level 4), Banking, BKPM, Majalengka Regency Government/Cirebon/Cirebon City and Travel Agency/MSME Association and BUMDes (Level 5). The highest level is level 1, where the higher the level of the actor, the greater the influence and contribution to regional development in Kertajati and Metropolitan Rebana. The interventions carried out by actors (level 1) are also getting smaller.

Therefore, to answer the regional development strategy so that all regions can have high leverage and *multiplier effects* according to the characteristics of the origin or commodity base. It takes three (3) forms of development strategies by key actors (BIJB and the Ministry of Transportation), four (4) development strategies by the Ministry of Industry and the Ministry of Tourism, five (5) development strategies by the Governor, five (5) development strategies by PT Angkasa Pura 2, and ten (10) strategies developed by Banking, BKPM, Regency Government (Majalengka/Cirebon City/Cirebon Regency) and Travel Agencies/MSME Associations and BUMDes. to the location of Majalengka Regency (13 programs) and Cirebon Regency (7 programs) and Cirebon City (7 programs). To prepare for the development of the Rebana and Kertajati Metropolitan areas, the role of BIJB and the Ministry of Transportation has a high influence on the success of future development.

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