Scenario Planning for Rural Area Development in Kediri Regency

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Abstract. Scenario planning is an appropriate strategic management concept based on development participation. In particular, Kediri Regency is a developing region in East Java Province. This district initially relied on the agricultural sector for economic growth in all villages. However, with the current vast area of Kediri Regency, Kediri Regency is divided into four strategic areas. The four areas are agricultural, trade and industrial, tourism areas, and international airport areas. Specifically, Kediri Regency does not have rural areas, meaning scenario planning for rural areas needs to be carried out. This research aims to map rural areas by finding rural area planning scenarios from the four areas that have been formed. The scenario planning method in this paper uses tracking, analyzing, imaging, and deciding. The data in this paper was collected through interviews, secondary data, and observation to fulfill the tracking stage. The output of the tracking stage is analyzed using cross-impact to build scenarios in the analysis stage. The production of the analyzing stage becomes the input for formulating vision and strategy at the imaging and deciding sets. This article offers four alternative methods for developing rural areas: less synergy, synergism, antagonism, and additive.

Keywords: Kediri Regency, regional planning, rural areas, scenario planning

1. Introduction

Scenario planning is a tool for considering the future of an organization. Scenario planning can provide alternative strategies and grow potential in a region's development strategy management system. Scenario planning will discuss the historical side of an organization and divide it into several time frames and paradigms [1]. Scenario planning also opens up causal factors that can be analyzed and traced to their development to produce all-important development baselines. Scenario planning can combine historical and strategic elements to identify counterfactuals and understand the relative importance of causal alternatives to strengthen historical records [2].

Meanwhile, it can systematically simulate how to control a problem that focuses on economic or social issues to overcome the risk of crisis [3]. Scenario planning affects controlling problems rather than generating alternative development strategies [4]. Historical factors are not considered because we look more closely at future conditions. However, the problem phenomenon used as an issue remains the same, namely economic and social problems.

In several research studies, scenario planning is used as an alternative for decision-making and to identify new problems that may arise [5]. However, in the process, scenario planning cannot be used as the primary measuring tool for the strategic management process. This is because differences in organizational background will undoubtedly change the planning scenario and become a difference between one scenario and another [6].

Scenario planning generally starts from the uncertain [7]. This is considered very logical because of the uncertainty and complexity of the development agenda, only looking at the factors and trends currently developing. However, the reconstruction of scenario planning is based on historical factors as drivers for reconstructing the future framework [8]. Past events interconnected with the present are a tool for determining a planner's perception of alternative strategies that will be worked on [9].

There are various types of analysis used to build planning scenarios. The study used in scenario planning is systematic and exploratory because it explores alternative paths within and outside the organization's scope [10]. At a certain point in scenario planning, there is no global perspective. This is because each organization has many methods and scenario agendas, such as scenario planning for elements of state service providers and scenario planning for the business industry. The consequences are also different between profit and non-profit organizations' strategies. However, in practice, the similarities can be used as a reference. Namely, scenario planning combines strategic planning and long-term planning. When integrated, the complexity of long-term planning and the simple and strategic nature of strategic management can produce more detailed and comprehensive organizational issues.

The timeline of scenario planning is taken from the past to find specific trends and baseline data. Long-term transformation requires adaptive and innovative responses. In answering these challenges, scenario planning actors must be guided by foresight and an anticipatory attitude to achieve sustainable development goals based on a socio-ecological system [11].

Sustainable development goals in Indonesia regarding rural areas are prepared by the *Kementerian Desa dan Daerah Tertinggal* (Ministry of Villages and Disadvantaged Regions). The ministry is targeting 227 rural areas to have designed master plans for rural areas in national development planning documents. The concept of a master plan is translated as comprehensive, integrative, and anticipatory development planning for every possible possibility. This is to manage future uncertainties due to development so that the master plan is 15 to 20 years or what is known as a long-term plan.

If we examine the rural planning documents based on the Village Minister's Regulation, the period for the Rural Area Development Plan is five years. This period corresponds to strategic planning time, which has a relatively short time horizon of between 3 and 5 years. This short time was chosen to anticipate dynamic environmental changes [7]. As an effort to increase the sustainable development of rural areas, each rural area development document is implemented for five years. The product must have a clear direction and anticipate every possibility that may occur in the future. Therefore, long-term planning for rural area development is needed within 15 to 20 years.

Kediri Regency received a National Strategic Project (NSP) mandate from the central government. This NSP is one of the accelerated development projects from 2019 to 2024. Kediri Regency is listed as the area where an international airport will be built. This development has an impact on changes in the economic structure of Kediri Regency. The construction of this airport aims to facilitate connectivity between regions, especially in the southern part of East Java. In addition, we are encouraging new economic centers, tourism, and trade.

Apart from not having a master plan for rural area development, Kediri Regency also has fundamental problems. That problem is poverty. High unemployment rates cause the poverty problem in Kediri Regency. Compared with Tulungagung Regency, which borders directly with Kediri, Kediri Regency still has very high unemployment. Massive layoffs influence the significant unemployment rate in Kediri Regency due to the Covid-19 pandemic. This condition is complex for the government to avoid because unemployment triggers poverty, other economic problems, and declining welfare.

Based on this explanation, it is very relevant if the tool used is scenario planning. Scenario planning is a planning alternative in preparing long-term plans for rural areas and an instrument for implementing rural area development planning that has been designed previously. This is to the statement by Lindgern and Bandhold [12]: "When should scenarios be used as a tool in strategic planning? The simple answer to that question is when there is a reason. And there is a reason to use scenarios in the strategic process as soon as there is significant uncertainty in the decision context". This statement emphasizes that there is a strong indicator of the use of scenario planning to anticipate high uncertainty. Developing a master plan for rural areas using the scenario planning method is suitable. This is because solutions from traditional strategic planning can overcome rapid environmental changes because scenario planning fully understands the current situation and the possibilities/uncertainties that will occur.

2. Research Method

This research is descriptive research with a qualitative approach. Qualitative research is used to obtain in-depth data, where the research instrument is the person or researcher themselves [13]. For this reason, the most important for researchers is theory and broad insight so they can ask questions, analyze, capture, and construct the social situation being studied to be more precise and meaningful. The selection of descriptive qualitative research was based on the research analysis method used by the scenario planning analysis stages. The scenario planning method used by Lindgren and Bandhold states that scenario planning can be used for qualitative and quantitative approaches. Still, the tendency is more toward a qualitative approach and does not require a quantitative approach [12].

Meanwhile, the location of this research is in Kediri Regency, while the research site is at the Regional Development Planning Agency of Kediri Regency *(Badan Perencanaan Pembangunan* Daerah*)* as the leading sector in rural area development or as chairman of the Rural Area Development Coordinator *(Tim Koordinasi Pembangunan Kawasan Perdesaan)*, Community Empowerment and Village Government Service *(Dinas Pemberdayaan Masyarakat dan Pemerintahan Desa)*, Rural area assistant from the Ministry of Village *(Pendamping Desa)*, Owned Enterprises Villages *(Badan Usaha Milik Desa Bersama)*, and the Coordinating Agency between Village Areas *(Badan Koordinasi Antar Desa)*. The data analysis technique in this research uses the Creswell model because it represents the process carried out by researchers in the field. Creswell model analysis begins with organizing and preparing data for examination, reading through all data, starting coding all of the data, using the coding process to generate a description, interrelating the theme, and interpreting the meaning of the theme [14]

Furthermore, by adopting the data analysis techniques recommended by Lindgren and Bandhold in scenario planning, several stages need to be considered, namely Tracking, Analyzing, Imaging, Deciding, and Acting [12]. Considering the needs of this research, the Acting stage was ruled out. *First*, the tracking stage is related to efforts to find trends, driving forces, uncertainties, and strategic issues that need to be considered as long as they influence the future of the focal question.

Second is the analyzing stage by identifying driving forces and trend links, selecting from the previous step, and tracking. The method used to see the relationship between trends is cross-impact analysis. The cross-impact analysis method helps us see differences in overall trends and then analyze the relationships between variables. The cross-impact analysis method also helps in identifying key variables.

Table 1. Cross-Impact Analysis

Trend/Variable	1	2	3	4	5	6	Sum	
1		–2	–1	2	0	1	6	
2	2		0	0	0	0	2	
3	–1	0		0	2	0	3	
4	–2	2	1		2	1	8	**Strongest driver**
5	2	0	2	0		–1	5	
6	0	2	–2	2	–1		7	
Sum	7	6	6	4	5	3		

↑
Strongest dependent

After seeing the number of relationships between trends, the Strongest Dependence and Strongest Driver will be classified to facilitate scenario analysis. The concept of scenario thinking is a system thinking concept. Therefore, it does not stop at understanding interrelationships; Lindgren and Bandhold also emphasize the importance of understanding the design of trends. As for understanding the system, Lindgernd and Bandhold recommend causal-loop diagrams as the right approach.

Third, Imaging. Imaging is a stage related to making decisions about the future or can also be called a vision. Vision is a positive idea about the future. Lindgren and Bandhold divide the vision into an audacious 10 to 30-year goal and a vivid description that usually discusses what will be done when the plan is achieved.

Fourth, Deciding. This stage merges all the previous steps. Tracking, analyzing, and imaging are essential instruments in this stage. It should be understood that this stage focuses on discussing strategy formulation, which means that all the previous steps are critical inputs that can be used in strategy formulation.

3. Result And Discussion

3.1. Tracking

This stage seeks to identify trends, driving forces, uncertainties, and strategic issues essential to completing the following steps. Based on the results of analysis from data mining starting from Media Scanning, Interviews, and Focus Group Discussions in the development of rural areas in Kediri district, Indonesia, as follows:

Table 2. Recapitulation of Finding

Variable	Code	Finding
Driving Force	1	Active community participation in the development of Agricultural Areas

Variable	Code	Finding
	2	Agricultural potential and natural conditions
	3	Production equipment and processing of production products from the government
	4	Agricultural areas are a priority regional development agenda.
	5	The population's food availability is adequate
	6	The trade sector is a new economic growth sector
	7	Development of the Simpang Lima Gumul Central Business District
	8	Community and private involvement
	9	Artists and cultural figures who are active in developing regional arts and culture
	10	Several new tourist destinations have great potential to attract tourists.
	11	Airport area development planning
	12	Central government support
Trend	13	Decrease in the amount of plantation and agricultural production
	14	Increasing the trade sector to the contribution of GRDP
	15	Increased export
	16	Increased investment
	17	Increase marketing of tourism and cultural cooperation between regions
	18	Increased tourist visits
	19	Improved Road Infrastructure in Good Condition
Uncertainties	20	Climate anomalies and erratic rainfall
	21	Market competition and market stability
	22	Covid-19
	23	Political Stability
Strategic Issue	24	Limitations of agricultural technology and agribusiness
	25	Lack of creativity among business actors and service providers
	26	Limited MSME capacity in marketing trade area products
	27	The role of the village government is not optimal
	28	Tourism management and marketing is not optimal
	29	Tourist clusters are not managed optimally
	30	Tourism Village and Homestay Clusters have not been managed optimally
	31	Expansion of areas affected by airport
	32	Increased investment in the area around the airport

Source: Muzaqi (2023)

Table 2 shows that the output for this stage has 12 driving forces, 7 trends, 4 uncertainties, and 9 strategic issues. A total of 32 findings are essential considerations in completing the following locations. The next step is analyzing, marking the start of building a scenario.

3.2. Analysis

This stage consists of three stages: the first stage analyzes the interrelation between trends (in this case, the overall findings). It strengthens it with Causal-Loop Diagram analysis to produce the Strongest Driver and Strongest Dependence. The second stage is to build a scenario based on the results of the interrelation analysis between findings and understand the system of each discovery—the third stage is narrating the plan that has been built.

3.2.1. *Analyze the Interrelation between trend*

Based on the results of the Cross Impact Analysis, it is known that there are two findings, which will be the Strongest Driver and the Strongest Dependence. The Strongest Driver is an item that significantly influences everything it affects. The Strongest Driver from the Cross Impact Analysis results is the Export Increase item with a value of 31. Meanwhile, the Strongest Dependence is the one that is influenced by other things with the most significant value. The Strongest Dependence from the results of the Cross Impact Analysis is the Trade Sector as a New Economic Growth Sector with a value of 35. Apart from the Cross Impact Analysis, the Causal-Loop Diagram method strengthens the analysis in obtaining the Strongest Driver and Strongest Dependence. Based on the Causal-Loop Diagram analysis results, the item with the most influence is the Trade Sector item as a New Economic Growth Sector. Meanwhile, the thing that has the most power from other articles is the Export Increase. The results of the Cross Impact Analysis and Causal-Loop Diagram can be summarized in Table 4.

Table 3. Cross–Impact Analysis Results

	DRIVERS																																
code	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	Total
1	■	1	1	0	1	0	2	0	1	0	0	0	2	2	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	0	14
2	0	■	0	0	0	0	1	2	0	0	1	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
3	0	0	■	0	0	0	1	2	0	0	1	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
4	1	0	0	■	0	0	0	0	1	0	0	0	0	0	0	2	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	2	10
5	2	0	0	2	■	2	2	2	0	2	2	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	18
6	2	0	0	2	2	■	2	0	2	1	0	1	0	2	1	0	0	1	1	0	0	0	0	1	2	2	2	2	2	2	1	0	31
7	0	2	2	0	0	2	■	0	0	0	0	0	2	2	2	0	0	0	0	0	0	1	0	2	0	0	0	0	0	0	1	2	18
8	0	2	2	1	2	0	1	■	1	1	0	1	2	2	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	18
9	2	2	2	2	2	2	0	0	■	0	0	0	2	2	2	0	0	0	2	0	0	0	0	0	0	0	2	0	0	0	0	0	22
10	0	0	0	0	0	0	0	0	0	■	0	0	0	2	2	0	0	0	2	2	0	0	0	0	1	0	0	0	0	0	0	0	9
11	0	0	0	0	0	1	0	0	2	2	■	2	0	0	0	0	0	0	2	2	0	2	0	0	0	0	0	0	0	0	0	0	13
12	0	0	0	0	0	0	0	0	0	0	0	■	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	4
13	2	2	2	0	2	0	2	2	2	0	1	1	■	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19
14	0	0	0	0	0	2	0	0	0	0	0	0	0	■	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	4
15	0	2	2	0	0	0	0	0	0	0	0	0	0	0	■	0	0	0	2	2	0	0	0	2	0	0	0	0	0	0	0	0	10
16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	■	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	4
17	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	■	0	0	0	2	0	0	0	1	0	0	0	0	0	0	0	5
18	0	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	■	2	0	0	2	0	2	0	0	0	2	0	0	0	0	11
19	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	■	0	0	0	0	1	0	0	0	0	0	0	0	0	5
20	1	2	2	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	■	0	0	0	2	0	0	0	0	0	0	0	0	11
21	0	0	0	0	0	1	1	0	1	0	0	2	0	0	0	0	0	0	0	0	■	2	0	0	0	0	0	0	0	0	0	0	7
22	1	0	0	0	2	0	0	1	2	0	2	2	0	0	1	0	0	0	0	0	0	■	0	2	0	0	0	2	1	0	0	0	16
23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	■	0	0	0	0	0	0	0	0	0	4
24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2	0	2	0	0	0	■	0	0	0	0	0	0	0	0	8
25	-2	-2	-2	0	0	-2	-2	0	-2	0	0	0	0	-2	-2	0	0	0	0	0	0	0	0	-2	■	0	2	2	0	0	0	0	22
26	0	-2	-2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-2	■	0	0	0	2	2	0	10
27	1	-2	-2	-2	0	-2	-1	0	-2	0	0	0	-2	-2	-2	0	0	0	0	-2	-2	0	0	0	-2	0	■	2	0	0	0	0	26
28	0	0	-2	0	0	0	-1	0	0	0	0	0	0	0	-2	0	0	0	0	0	0	0	0	0	-2	0	0	■	0	0	0	0	7
29	0	0	0	0	0	0	-1	0	-2	0	0	0	0	0	-2	0	0	0	0	0	0	0	0	-2	-1	-2	0	-1	■	2	2	0	15
30	0	-2	-2	0	0	0	-1	0	0	0	0	0	0	0	-2	0	0	0	0	0	0	0	0	-2	0	0	0	-1	0	■	0	2	12
31	0	-2	-2	0	0	-2	0	0	0	0	0	0	0	0	-2	-2	0	0	0	0	0	0	0	-1	0	0	0	0	0	2	■	2	15
32	0	-2	0	0	0	0	-1	0	0	0	0	0	0	0	-2	0	0	0	0	0	0	0	0	-2	0	0	0	0	2	2	0	■	11
Total	14	26	26	9	11	14	25	10	19	6	7	11	14	23	35	0	4	2	14	18	0	9	0	25	6	8	6	16	3	13	11	10	■

Table 4. Causal Loop Recapitulation

Code	Finding	Domination			Dependence		
		Dominant To (Code)	Total of Dominant To	Total of Cross-Impact Analysis	Depend On (Code)	Total of Depend On	Total of Cross-Impact Analysis
1	Active Community Participation in the development of Agricultural Areas	2, 3, 5, 7, 9, 13, 14, 15, 22, 25, 31	11	14	4, 5, 6, 9, 13, 20, 22, 25, 27	9	14
2	Agricultural Potential and Natural Conditions	7, 8, 11, 13, 15	5	8	1, 7, 8, 9, 13, 15, 18, 20, 25, 26, 27, 30, 31, 32	14	26

Code	Finding	Domination			Dependence		
		Dominant To (Code)	Total of Dominant To	Total of Cross-Impact Analysis	Depend On (Code)	Total of Depend On	Total of Cross-Impact Analysis
3	Production equipment and processing of production products from the government	7, 8, 11, 13, 15	5	8	1, 7, 8, 9, 13, 15, 18, 20, 25, 26, 27, 28, 30, 31	14	26
4	Agricultural areas are a priority regional development agenda	1, 8, 15, 19, 20, 32	6	10	5, 6, 8, 9, 27	5	9
5	The population's food availability is adequate	1, 4, 6, 7, 8, 10, 11, 12, 14, 28	10	18	1, 6, 8, 9, 13, 22,	6	11
6	The trade sector is a new economic growth sector	1, 2, 3, 7, 8, 11, 12, 14, 15, 17, 21, 25, 26, 27, 28, 29, 30, 31, 32	19	31	5, 7, 9, 11, 14, 21, 25, 27	8	14
7	Development of the Simpang Lima Gumul Central Business District	2, 3, 6, 13, 14, 15, 24, 26, 30, 31	10	18	1, 2, 3, 5, 6, 8, 13, 19, 20, 21, 25, 27, 28, 29, 30, 31, 32	17	25
8	Community and private involvement	2, 3, 4, 5, 7, 9, 10, 12, 13, 14, 19, 20, 32	13	18	2, 3, 4, 5, 13, 22	6	10
9	Artists and cultural figures who are active in developing regional arts and culture	1, 2, 3, 4, 5, 6, 13, 14, 15, 19, 28	11	22	1, 6, 8, 11, 13, 17, 21, 22, 25, 27, 29	11	19
10	Several new tourist destinations have great potential to attract tourists	14, 15, 19, 20, 25	5	9	5, 6, 8, 11	4	6

Code	Finding	Domination			Dependence		
		Dominant To (Code)	Total of Dominant To	Total of Cross-Impact Analysis	Depend On (Code)	Total of Depend On	Total of Cross-Impact Analysis
11	Airport area development planning	6, 9, 10, 12, 19, 20, 22,	7	13	2, 3, 5, 13, 22	5	7
12	Central Government Support	20, 32	2	4	5, 6, 8, 11, 13, 18, 21, 22	8	11
13	Decrease in the amount of plantation and agricultural production	1, 2, 3, 5, 7, 8, 9, 11, 12, 14, 15	11	19	1, 2, 3, 7, 8, 9, 27	7	14
14	Increasing the trade sector to the contribution of GRDP	6, 28	2	4	1, 5, 6, 7, 8, 9, 10, 13, 25, 27, 31, 32	12	23
15	Increased export	2, 3, 19, 20, 24,	5	10	1, 2, 3, 4, 6, 8, 9, 10, 12, 16, 20, 22, 23, 25, 27, 28, 29, 31, 32	19	35
16	Increased investment	7,25, 27,30,31,32	6	4	8,23, 27,29,	4	0
17	Increase marketing of tourism and cultural cooperation between regions	9, 22, 28	3	5	23, 24	2	4
18	Increased tourist visits	2, 3, 12, 20, 24, 26, 30	7	11	24	1	2
19	Improved Road Infrastructure in Good Condition	7, 15, 24	3	5	4, 6, 8, 9, 10,11, 15, 27	8	14
20	Climate anomalies and erratic rainfall	1, 2, 3, 7, 15, 24,	6	11	4, 6, 8, 10, 11, 12, 15, 18, 24, 27	10	18
21	Market competition and market stability	6, 7, 9, 12, 22	5	7	-	0	0

Code	Finding	Domination			Dependence		
		Dominant To (Code)	Total of Dominant To	Total of Cross-Impact Analysis	Depend On (Code)	Total of Depend On	Total of Cross-Impact Analysis
22	Covid-19	1, 5, 8, 9, 11, 12, 15, 24, 28, 29	10	16	1, 11, 17, 21, 23	5	9
23	Political Stability	17, 22	2	4	-	0	0
24	Limitations of agricultural technology and agribusiness	15, 17, 18, 20	4	8	7, 15, 18, 19, 20, 22, 25, 26, 27, 28, 29, 30, 31, 32	14	25
25	Lack of creativity among business actors and service providers	1, 2, 3, 6, 7, 9, 14, 15, 24, 27, 28	11	22	1, 6, 10, 16, 29	5	6
26	Limited MSME capacity in marketing trade area products	2, 3, 24, 30, 31	5	10	6, 7, 18, 29	4	8
27	The role of the Village Government is not optimal	1, 2, 3, 4, 6, 7, 9, 13, 14, 15, 19, 20, 24, 28	14	26	6, 16, 25	3	6
28	Tourism management and marketing is not optimal	3, 7, 15, 24	4	7	5, 6, 9, 14, 17, 22, 25, 27, 29, 30	10	16
29	Tourist clusters are not managed optimally	7, 9, 15, 24, 25, 26, 28, 30, 31	9	15	6, 21	2	3
30	Tourism Village and Homestay Clusters have not been managed optimally	2, 3, 7, 15, 24, 28, 32	7	12	6, 7, 18, 26, 29, 31, 32	7	13
31	Expansion of areas affected by airport construction	2, 3, 8, 14, 15, 24, 29, 30	8	15	1, 6, 7, 26, 29, 32	6	11

Code	Finding	Domination			Dependence		
		Dominant To (Code)	Total of Dominant To	Total of Cross-Impact Analysis	Depend On (Code)	Total of Depend On	Total of Cross-Impact Analysis
32	Increased investment in the area around the airport	2, 7, 14, 24, 30, 31	6	11	4, 6, 8, 12, 30, 31	6	10

Source: Muzaqi (2023)

3.2.2. Build a Scenario

At this stage, we prepare cross-scenarios based on the Strongest Driver and Strongest Dependence that have been obtained, which will then form 4 scenarios that are likely to occur. The possibilities that will happen in the four scenarios are based on the analysis results in the Cross Impact Analysis and Causal-Loop Diagram. The following are four scenarios for the future development of rural areas.
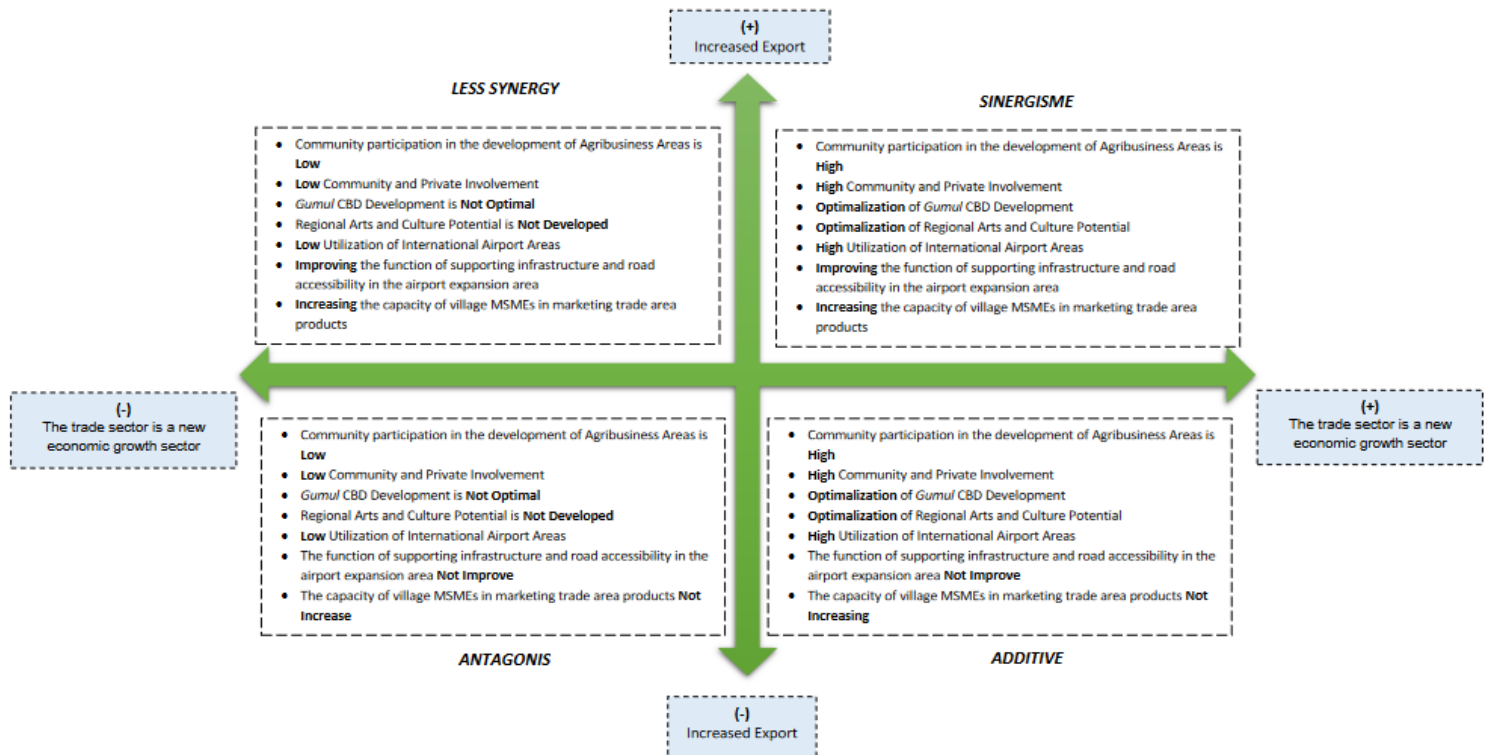
Source: Muzaqi (2023)

The conditions that will be faced in the future in the development of rural areas are narrated by these four scenarios. As for taking the names of the four scenarios based on the Local Economic Development collaboration category taken from the journal, Najiyati et al. stated that the Local Economic Development collaboration category is described by four criteria, namely system, common goals, process, and effect [15]. Meanwhile, what is taken from the analysis of four condition scenarios in developing rural agrotourism areas in Kediri Regency are synergy, less synergy, additive, and antagonist. The following is an explanation of four condition scenarios in the development of the rural regions in Kediri Regency:

3.2.2.1. Synergism Conditions (Comprehensively Systemized in the Region)

This is an ideal condition in developing rural areas where the change from the agricultural sector to the trade sector as new economic growth runs well and greatly influences Kediri Regency's exports. The increase in the trade sector is carried out by the government with various activities, including community service tasks in encouraging the business climate and employment opportunities for the community, both through the construction of trade infrastructure in the form of market revitalization and market rehabilitation, market development planning and industrial area planning, exhibitions. - import export training and training for Small and Medium Industries, all of which are oriented towards developing trade and industry in Kediri Regency. Achievement of strategic trade targets, namely increasing the trade sector's contribution, as shown by total exports in 2019 amounting to 56,415,883.09 USD.

Creating a trade-based rural area is hoped to create integration, clarity of roles, and transparent business processes for each party so that the outcome will be increased exports. The increase in exports is related to development priorities based on regional development, namely realizing strategic areas as agricultural bases supported by competitive and sustainable tourism, trade, and industry. The ease of export/import transportation routes with an international airport also helps. This condition will form a new large-scale industrial center around the airport area, such as the business center in the Gumul area.

Based on the conditions that have been explained, it will create an increase in people's income, an increase in people's welfare, an increase in employment opportunities, an increase in rural area assets in the form of natural capital, economic capital, finance, human capital, social capital, and physical capital. What characterizes the inclusion of rural area development in the Synergism condition scenario includes:

Community participation in the development of Agribusiness Areas is High, with High Community and Private Involvement, Optimization of *Gumul* CBD Development, Optimization of Regional Arts and Culture Potential, High Utilization of International Airport Areas, Improving the function of supporting infrastructure and road accessibility in the airport expansion area, Increasing the capacity of village MSMEs in marketing trade area products.

3.2.2.2. Less Synergy Conditions (The Area is Not Systemized but Has High Human and Economic Potential)

In Less Synergy conditions, the area is not systemized but has high human and economic resource potential. This is seen in the change from the agricultural sector to the trade sector as new economic growth is not going well, there is no integration, the division of roles is unclear, and business processes are opaque for each party. Even though the trade sector has not yet been created in terms of economic growth, the high potential of human and financial resources has been managed independently and limited by Village MSMEs. The capacity to address agricultural, tourism, and industrial products has increased, so the number of exports has increased. The sustainability of the Less Synergy condition in the long term will be prone to

lead to an antagonistic state due to limited coordination and synchronization among all rural area managers, resulting in rural area institutions not developing, not having clear development goals in the future, limited access to resource development, and airport expansion areas not being paid attention to. Future conditions like this will ultimately impact the non-development of total exports in Kediri Regency. In this Less Synergy condition, there is a significant opportunity to improve to a Synergistic state if there is an immediate strategy for handling the challenges faced, especially regarding coordination and synchronization among all rural area managers. What characterizes the inclusion of rural area development in the Less Synergy condition scenario includes:

Community participation in the development of Agribusiness Areas is Low, Low Community and Private Involvement, *Gumul* CBD Development is Not Optimal, Regional Arts and Culture Potential is Not Developed, Low Utilization of International Airport Areas, Improving the function of supporting infrastructure and road accessibility in the airport expansion area, Increasing the capacity of village MSMEs in marketing trade area products.

3.2.2.3. *Additive Conditions (Clearly Systemized Areas but Low Management of Human and Economic Resource Potential).*

Additive conditions are clearly systemized areas with low management of human and economic resource potential. This can be seen from the change from the agricultural sector to the trade sector, as new economic growth is going well but does not significantly influence increasing exports. The thing that affects this condition is the delay in managers capturing opportunities or threats that occur (opportunities for social trends in society, the threat of pandemics, political stability, government policies, market competition, and appropriate technology) so that rural areas cannot compete or result in a decrease in the value of exports in Village MSME products. Apart from the delay in capturing the conditions, it is also influenced by the lack of innovation in developing the potential of existing resources, resulting in limited village institutions in developing new industrial sector destinations superior to agriculture.

In this Additive condition, there is a significant opportunity to improve into a Synergistic state if there is an immediate strategy for handling the challenges faced, especially regarding the development of the *Gumul* CBD area and improving the infrastructure around the airport. What characterizes the inclusion of rural area development in the Additive condition scenario include:

Community participation in the development of Agribusiness Areas is High, with High Community and Private Involvement, Optimalization of *Gumul* CBD Development, Optimalization of Regional Arts and Culture Potential, High Utilization of International Airport Areas, the function of supporting infrastructure and road accessibility in the airport expansion area Not Improve, The capacity of village MSMEs in marketing trade area products Not Increasing.

3.2.2.4. *Antagonistic Conditions (Areas Not Systemized and Human and Economic Resource Potentials Have Not Been Developed)*

The antagonistic condition is that the area is not systemized, and the potential for human and economic resources has not been developed. This can be identified in the change from the agricultural sector to the trade sector as the new economic growth is not going well, thus not increasing the value of exports. In this condition, it is the opposite of the Synergistic state. This condition is a long-term Less Synergy condition if there is no further development strategy in overcoming the challenges faced, primarily related to the change from the industrial sector to the trade sector, which negatively impacts the development of resource capacity and increasingly decreases product strength in market competition. Meanwhile, what characterizes

the inclusion of rural area development in the Antagonistic condition scenario includes Community participation in the development of Agribusiness Areas is **Low**, **Low** Community and Private Involvement, *Gumul* CBD Development is **Not Optimal**, Regional Arts and Culture Potential is **Not Developed**, **Low** Utilization of International Airport Areas, The function of supporting infrastructure and road accessibility in the airport expansion area **Not Improve**, The capacity of village MSMEs in marketing trade area products **Not Increase.**

3.3. Imaging

Based on the objectives of rural area development in Law Number 6 of 2014 concerning Villages, the relevant vision for the next twenty years is as follows: *"Making the Development of Rural Areas of Kediri Regency Competitive, Sustainable and Creating Economic Independence for the Community."* This vision is based on considerations of the concept of local economic development, which has the aim of being "pro-poor" or development directed at creating jobs and social welfare safety nets and "pro-growth" or development efforts directed at creating an environment that supports increasing local economic value [16]. Apart from that, local economic development has the following principles [17]: Sectoral tenets, namely the synergy of central and regional development policies/priorities; regional principles, namely the government establishing the RED-SP (Regional Economic Development Strategic Program) Program through Inter-Regional Cooperation, cluster development, and creating a conducive climate for the business world, and Participatory principle, namely there is a collaboration between the government, the business world, local communities, and other organizations.

Based on these goals and principles, the purpose of the rural area development vision that has been formulated is to optimize existing potential, starting from natural resource potential, agricultural potential, tourism potential, human resource capacity potential, and socio-cultural potential. Optimizing these potentials is done by utilizing the international airport area, improving supporting infrastructure such as roads, and optimizing CBD development to increase trade exports. It is hoped that the development of the rural regions will also implement sustainable development so that existing development does not damage the environment and economic growth has clear long-term goals. From rural areas with strong competitiveness and long-term sustainability, it is hoped that they will have a significant impact in realizing local economic development goals, namely increasing employment opportunities as a safety net for social welfare and boosting local economic value to create community financial independence.

3.4. Deciding

After describing Kediri Regency's vision regarding the development of rural areas, technically, the idea is translated into a program strategy. The explanation takes into account four rural area development scenarios. Three main strategies for developing rural areas in Kediri Regency were decided by considering the four scenarios in the analyzing stage. These three regional development strategies are the main ideas of the imaging findings, which contain a vision, so they can be said to be three strategic rural regional development strategies:

a. Inclusive development of industry and trade
b. Inclusive development is a development that not only relies on aspects of economic growth but also focuses on aspects of equity and effectiveness of development, resulting in job creation. This aspect of equality and job creation is manifested in the priority of developing small and medium industries and agro-based industries. SME development must be a priority because it absorbs a lot of labor, and more than 90 percent of the sector in Kediri Regency is still small-medium scale. The development of agro-based industry is intended so that industrialization positively impacts the agricultural sector.

c. Independent development of industry and trade
d. In the industrial sector, economic independence is realized by reducing industry dependence on imported raw materials. In the trade sector, freedom is sought by strengthening domestic trade by increasing trade cooperation with other districts by opening Trade Representative Offices.
e. Highly competitive development of industry and trade
f. The competitiveness of the industrial and trade sectors must continue to be improved, considering that the world economic system is increasingly integrated at regional and international levels. With an integrated approach, the traffic of goods, services, and labor between regions will increasingly not be limited by non-technical barriers. Competitive and comparative advantages are thus the key to Kediri Regency's success in global economic integration.

4. Conclusion

Scenario planning for developing rural areas in Kediri Regency begins with strategic area mapping. The mapping is divided into four areas: Agriculture, Trade and Industrial, Tourism and Culture, and Airport. This mapping was carried out to identify Driving forces, Trends, Uncertainties, and strategic issues to understand existing conditions at this time. The tracking results found 12 driving forces, seven trends, four uncertainties, and nine strategic problems with 32 inputs. From these 32 inputs, the results found that the Strongest Driver is Increased Exports, and the Strongest Dependence is the Trade Sector as a New Economic Growth Sector.

These two items were identified to determine four scenarios that describe future possibilities. The four scenario conditions include Synergism Condition (comprehensively systemized in the area), Less Synergy Condition (the site is not systemized but has high human and economic resource potential), Additive Condition (the area is systemized but low management of resource potential human and financial), and Antagonistic Conditions (the site is not systemized and the potential of human and economic resources has not been developed). Based on these four condition scenarios, there are three main strategies for developing rural areas in Kediri Regency in facing the four existing condition scenarios: inclusive development of industry and trade, independent development of industry and trade, and highly competitive development of industry and commerce.

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