

The role of small towns in regional development of kedung sepur central java

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THE ROLE OF SMALL TOWNS IN REGIONAL DEVELOPMENT OF KEDUNGSEPUR, CENTRAL JAVA

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ABSTRACT

Mega-urban is an expansion of a metropolitan to the surrounding area. This formed a functional connectivity between the main city and its surrounding area (Laquian, 2005). By this, the role of each region should be balance. The main city should play the highest role, and stimulate the growth of surrounding areas. However, the contrary happened that the main city are often extremely dominant. Thereby, the role of the small towns around the metropolitan are now weakened (Sari and Mardiansjah, 2010). They can not further play their role as the center of economic activity for rurals. Contrary, their dependency to the main city become higher.

This kind of dependency also took place in the region of Kedungsepur. Kedungsepur consist of one main city (Semarang) and many small towns surround it. Semarang is apparently very dominant because of all activities, especially economic, are oriented to Semarang. Consequently, the small towns' dependency to the main city are higher, particularly in case of public services (Nugroho et al, 2010). Thus, many problems has emerged such as regional disparity, congestion, the growth of commuters, and uncontrolled spatial development.

Base on this background, this research tends to examine the growth and role of the small towns in Kedungsepur. The area selected for this study is the area between Semarang – Salatiga, specifically the small towns along the regional line of Joglsemang (Jogja-Solo-Semarang). The towns are Ungaran, Bergas, Bawen, Ambarawa, and Tuntang. The methods which was used to examine the role of small cities are the LQ and shiftshare model. The result shows that Ambarawa and Bawen can be developed as the secondary center, while the other towns (Tuntang, West and East Ungaran, and Pringapus) have the lower orde. Each of them has a spesification depend on their economic potential. West and East Ungaran, and Ambarawa play their role as the local service center. while Bergas, Pringapus, Bawen and Tuntang are the area service center, especially in industrial service. Thus, this study also propose an idea on the development concept of these towns.

Keywords: regional, small town, mega urban

A. INTRODUCTION

The regional development concept initially came along the growth pole model. The model encourages the main city to develop, then spread the positive effect of the development to the cities/towns surrounding (hinterland). But the backwash effect, as against the spread effect, takes place in this process of development. Precisely, the main city absorbs the surrounding potential, thus the hinterland increasingly depends on it. So there are no reciprocity, even the smaller cities have to serve the bigger one. Instead, the bigger ones tend to give many services to the broader market, regionally or internationally (Firman, 2011). Hinderink et al (1998) state that the role of small towns is very important in urban-rural relations but these relations are often ignored.

Problems resulted from the development of the large cities, population density and also immigration of the inhabitants to these cities made planners to pay more attention to reinforcement and development of small towns. It is believed that by strengthening small towns we can solve many problems of small towns resulted from the lack of proper access to services centers. Furthermore, the small town centers will be able to play their role as the first urban centers and a part of rural regions and also considered as a link between rural regions and larger cities.

The phenomena also happened in the Kedungsepur region, especially in the Semarang-Salatiga area. Almost all of the activities in this area concentrated in Semarang as the main city. The primacy of Semarang become increasingly huge, and absorb the hinterland's potential. Thus, the smaller towns such as Ungaran, Bergas, Bawen, Tuntang, and Ambarawa have not yet hold their role optimally. Meanwhile, their importance in this corridor is substantial, as it connects some big cities in Java (Solo, Yogyakarta, Semarang) and the only main transportation network in Kedungsepur. The towns along the road are rapidly develop in line with the increase of economic activity of the big cities. They tend to have an unplanned development, indicated by activities development that occurred irregularly, land conversion, and unintegrated transportation system development. Whereas, the small towns have their potential to economically and physically develop. The potential can be develop optimally and will complementary interacted, thus stimulate the economic development.

This study focused on the potential role of small towns of the Semarang-Salatiga road corridor in the regional scale of Kedungsepur. Bearing the importance of the small towns in mind, this study will address two interrelated research questions as follows: what does the specific potential of each town and how do they support the role of them in the regional context.

This article will be organized in four parts. The first is the introduction. The second will discuss the research method. The third will discuss the pattern of regional structure in Semarang-Salatiga corridor, as the result of this study. While the fourth part will be the conclusion of this study.

B. RESEARCH METHOD

1. The studied zone

The corridor between Semarang – Salatiga is the important corridor in the regional system of Kedungsepur. It consists of some towns that develop rapidly in line with the growth of economic activity. The towns that are the object of this study are Ungaran Barat, Ungaran Timur, Bergas, Bawen, Pringapus, Tuntang, and Ambarawa.

2. Method

There are two methods were used to analyze the role of small towns, they are Location Quotient (LQ) and Shift Share method. The LQ method was used to examine what exactly the potential of each towns in the study area. Then it will figure out what sector is the basis economic sector in a region. The shift share method was used to describe what sectors are the potential, and which ones are the slowly growing. Hence, the result of regional analysis are mapped to be analyzed spatially. The last, there is a concept planning for the development of that small towns.

C. LITERATURE STUDY

Regional development is a complex process, that included many aspects such as economic, social, environmental, and government (Dahuri 2004 in Tarigan, 2005). Each town will have different role in this process. The basic theories to explain the role of each town are central place, growth pole, central-periphery, and urban system.

The central place explain the urban center organization, and it was postulated by August Losch and Chistaller, inspired by location theory of Von Thunen. It is said that center place is formed by the regional centers that have their function as the service centers for the surrounding, called the complementary regions or hinterland, or sometimes are called as influenced or serviced region. The regions has a hierarchy that is determined by the range of service and treshold population (figure 1)

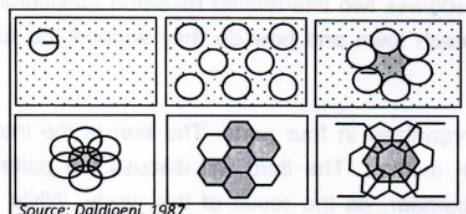
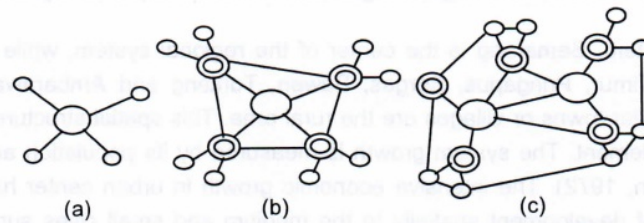


Figure 1. The Formation Process of Central Place

The growth pole theory was firstly postulated by Francoix Perroux. It is a focused or centers in economic region that spread the centrifugal and centripetal, means that every center has pull and push center. The concept in this teori are propulsive unit, leading industry, polarization, and spread effect (Glasson, 1077).

The third is core-periphery theory, developed by Albert O. Hirschman, dan John Friedmann. The center is an area that has a high capability to evoke and do the inovative change, while the periphery is the complementary regions that depend on the center. According to Rustiadi et al (2006), the center is a concentration area of population, the market for the agricultural or industrial commodity, the service center for its hinterland, and the location of industrial agglomeration. While hinterland are the producer of raw material, labour, and the market zone.

The role of each town in regional scale shaped a spatial organization showing the regional interaction, called urban system. It is formed because of the variation of size, service capability, and development rate of each town. Laan (1992) in Nugroho (2005) explained that the urban system is influenced by the local and regional economic. In this system, the intensive economic growth in the center will diffuse spatially to the medium and small cities surrounding. The center plays as the nodal or center point in the commodity flow. The urban system is classified into three types (Laan 1992), they are: (a) the *nodal pattern*, (b) *local multinodal system*, and (c) *regional multinodal system* (Figure 2).



Source: Laan in Nugroho, 2005

Figure 2. The Spatial Pattern in Urban System

D. DISCUSSION AND RESULT

1. The Regional Structure Of Small Towns In Semarang-Salatiga Corridor

The Semarang-Salatiga corridor is a part of Kedungsepur area. Kedungsepur is located in Central Java. In the Java regional system, Kedungsepur has a strategic position because it lies between the bigger regional systems such as Jabodetabek, Bandung Raya, and Gerbangkertasusila. The road corridor of Semarang-Salatiga (Semarang-Salatiga Corridor)

lies among the main cities in Central Java, or in the broader regional system called Joglosemar which stands for Jogja, Solo and Semarang (Figure 2).

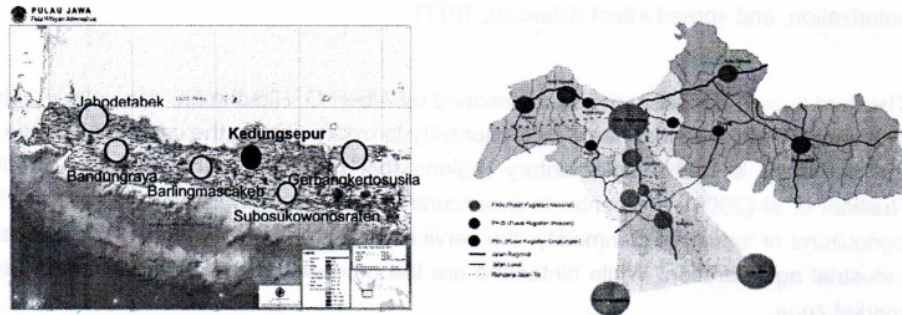


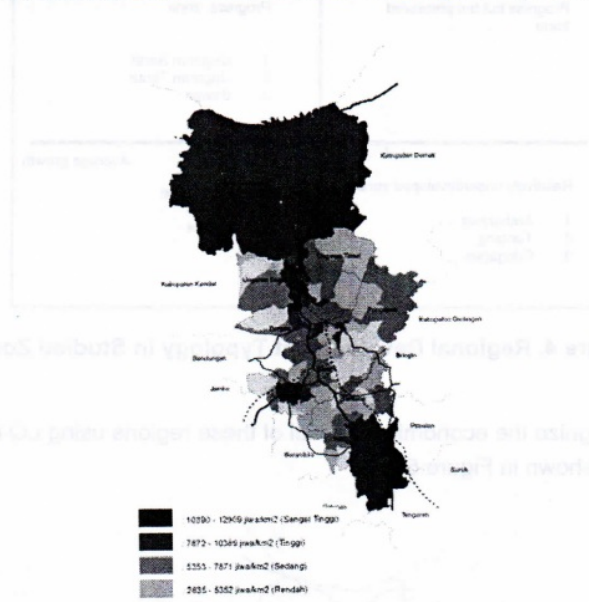
Figure 2. The Position of Kedungsepur Region and Studied Zone in Regional System

As a regional system, the Semarang-Salatiga corridor is shaped by towns exist in that area. The common pattern consist of center and hinterland. The center is a big city, while the medium and small towns, and the villages are its hinterland. Each of them has a spesific role in the regional scale. The role shapes a spatial organization showing the regional interaction or town system. This system refer to the order of town size, service capacity, and the development order of the town. Based on the explanation, the spatial configuration of town system in the Semarang-Salatiga corridor is a *nodal pattern system*).

In this system, Semarang is the center of the regional system, while the Ungaran Barat, Ungaran Timur, Pringapus, Bergas, Bawen, Tuntang and Ambarawa are its hinterland. Other smaller towns or villages are the rural area. This spatial structure shaped by a set of urban settlement. The system growth is measured by its population and economic growth (Friedmann, 1972). The intensive economic growth in urban center has not yet given the diffusion of development spatially to the medium and small cities surround urban center. The urban center has a function as a nodal or center point in the commodity flow. This is still a traditional model, where the good and service flow focused on the city center, thus there are no flow between region. This pattern emerge in *periphery* and the unurbanized area. It is supposed that someday, the system will change into a *local multimodal* system, that shows a decrease hierarchy in the local manner, indicated by the new nodes that area capable to compete with the previous nodes. Although the traditional towns are still dominant as the acitivity center and commodity flow. But in the local manner, there will be a horisontal flow beyond the nodes. This pattern shows integration among urban centers in the higher manner.

The definition of a system also means that there are interaction among its elements. Commonly, the regional interaction concept explains a relationship between the growth pole with the surrounding area. This pole is supposed to be a generator for the growth of its

surrounding, thus the regional disparity can be minimized. For this purpose, each center should hold their function and role hierarchical in the regional system.



Source: Regional Studio Report, 2011

Figure 3. Population Distribution in Semarang-Salatiga Corridor

The distribution of population usually shows the potential of a town capability. The population distribution can be seen in figure 3. The most dense area are Ungaran Barat (especially along the main road) and Ambarawa. It means that they have the most complete facilities, or the highest access to the urban services, and also the high rate of economic growth. The picture also shows that the density concentrated along the road side, because of location's accessibility. We should consider too, that a freeway has been built passes by this area. This will increase the accessibility, and then attract more people to come. It is possible too, that Bawen will have a higher of population density because there will be the interchange of the freeway (toll road).

2. Distribution of Towns' Potential

The potential of the towns can be seen from the economic growth rate. It is one of indicator in the regional growth. The condition is drawn into a Klassen typology of region (figure 4). The regions that grow rapidly (higher than or the same as the average) are Ungaran Barat, Ungaran Timur, Bawen, Bergas, and Salatiga. These regions have the big economic or development potential. The regions have the slowly growth rates (under the average) are Ambarawa, Tuntang, and Pringapus district. These regions are slowly growth because their economic activity mostly depend on the traditional agriculture. And even, Ambarawa district has a decreasing rate of economic growth.

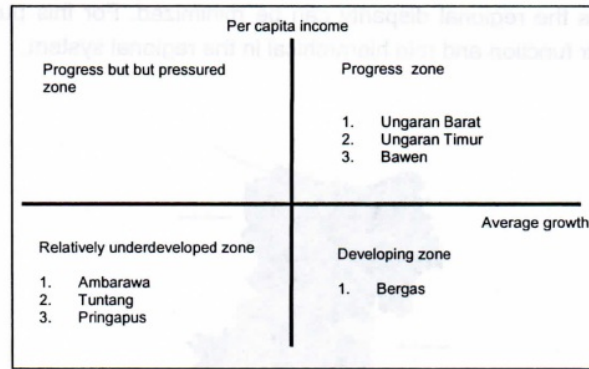


Figure 4. Regional Development Typology in Studied Zone

We can also recognize the economic potential of these regions using LQ method. The result of LQ analysis is shown in Figure 5 to 8.

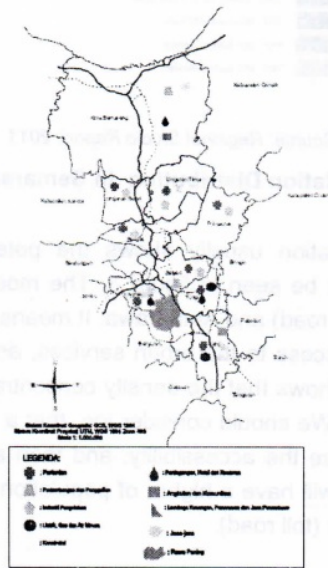


Figure 6. The Spatial Distribution of the LQ Value in Studied Zone

The graphic shows that agriculture is a sector that has been the basic sector for almost all regions. But the rate of the agriculture as the basic sector tend to decrease in the last three years. It means that the income from the sector getting lower by years. We can also predict this phenomena happened because of the land conversion from agriculture into built function, such as industrial, settlement, or trading and service. Industrial sector as the basic

sector is concentrated on some regions, that are Ungaran Barat, Ungaran Timur, Bergas, and Pringapus. The trade sector are appeared in Tuntang and Ambarawa.

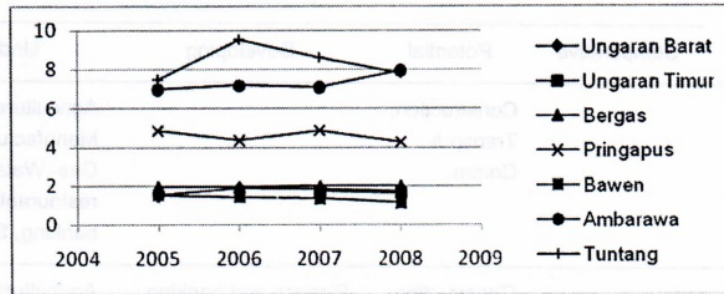


Figure 7. The LQ Value Trend of Agricultural Sector in Studied Zone

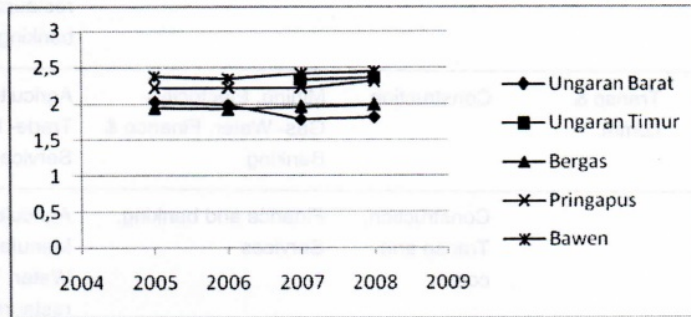


Figure 8. The LQ Value Trend of Manufacturer Sector in Studied Zone

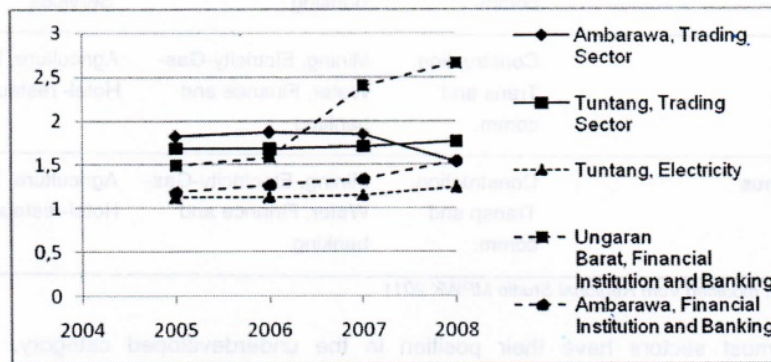


Figure 9. The LQ Value Trend of Other Sectors in Studied Zone

The next analysis to describe the role of small towns is Shift Share analysis and by this we can classify the economic sectors into four groups, they are comparative, potential, developing, and underdevelop sectors. The classification can be seen in Table 1.

Table 1. The Result of Shift Share Analysis in Semarang-Salatiga Corridor

Region	Economic Sector Position			
	Comparative	Potential	Developing	Underdeveloped
Ungaran Barat		Construction, Transp & Comm.		Agriculture, Mining, Manufacture, Electricity-Gas- Water, Trade- Hotel-restaurant, Finance & banking, Services
Ungaran Timur		Construction, Transp & Comm.	Finance and banking	Agriculture, Mining, Manufacture, Electricity-Gas- Water, Trade- Hotel-restaurant, Finance and banking, Services
Bergas	Transp & comm.	Construction	Mining, Electricity,- Gas- Water, Finance & Banking	Agriculture, Manufacture, Trade- Hotel- restaurant, Services
Ambarawa		Construction, Transp and comm.	Finance and banking, Services	Agriculture, Mining, Manufacture, Electricity-Gas- Water, Trade- Hotel-restaurant
Tuntang		Construction, Transp and comm.	Mining, Electricity-Gas- Water, Finance & banking	Agriculture, Industrial, Trade- Hotel- restaurant, Services
Bawen		Construction, Trans and comm.	Mining, Electricity-Gas- Water, Finance and banking	Agriculture, Industrial, Trade- Hotel- restaurant, Services
Pringapus		Construction, Transp and comm.	Mining, Electricity-Gas- Water, Finance and banking	Agriculture, Industrial, Trade- Hotel-restaurant, Services

Source: modified from Regional Studio MPWK 2011

The most sectors have their position in the underdeveloped category, includes the agricultural sector. Meanwhile, the sector is the sector basis that almost every region has. The comparative sectors in this region is communication and transportation sector. The only region having the competitive sector is Bergas. This may be affected by the industrial activities in this region. This activity generate transportation and communication activities to serve the process of industry, and also for the need of workers. The potential sector that every region have is construction. It means that the landuse change still happening in this

corridor. Many land convert into the built area, in spite of green area. And this result in an urbanization phenomena, that is the changing rural into the urban characteristic (Table 2).

According to the classification, only two regions has unurbanized characteristic and they are Ambarawa and Tuntang. Other regions are urbanized category, base on the contribution of Gross Domestic Product and the number of workers in industrial sector.

Table 2. The Classification of Urbanized Area in Semarang-Salatiga Corridor

Urbanized zone: <ul style="list-style-type: none"> • Contribution of non Agricultural sector to the PDRB >50% • Labour in non agricultural sector >50% Region: Bawen	Semi Urbanized zone II: <ul style="list-style-type: none"> • Contribution of non agricultural sector less than 50% • Labour in non agricultural sector > 50% Wilayah : -
Semi urbanized zone I: <ul style="list-style-type: none"> • Contribution of non agricultural sector to the PDRB > 50% • Labour in non agricultural sector <50% Regions : Ungaran Barat, Ungaran Timur, Bergas, Pringapus	Unurbanized zone: <ul style="list-style-type: none"> • Kontribusi PDRB di sektor agrikultur lebih dari 50% • Tenaga kerja bekerja di sektor agrikultur Wilayah : Ambarawa, Tuntang

Source : Studio team analysis, 2011

Based on the analyses, the role of each small towns in the Semarang-Salatiga corridor will be as follows (Table 3).

Table 3. The Role and Function of Small Towns

Region/district	Role and Function
Ungaran Barat	Activity center of Semarang Region and the capital of Semarang region, urban residential area, business and service area
Ungaran Timur	Supporting residential area development of Semarang Municipality, Economic center, Government and business center, Urban settlement area
Bergas	Strategical economic area, Residential area, Business and service area, Local economic development center on district scale, Medium and wide industrial area
Bawen	Industrial development zone, planned as big industrial zone (KIBA/Kawasan Industri Bawen)
Pringapus	Residential area, Business and service zone, Local development economic area (industrial zone)
Ambarawa	Regional Activity center on Kedugsepur scale and area center on Semarang regional scale, Collecting center for agriculture product, Agrobusiness and natural tourism, Residential, Business and service zone
Tuntang	Residential center, Business and service center, Agricultural area

E. CONCLUSION

Small towns play a very important role as "Rural Development Centers" in the growth process of rural and provide services rural region in their surrounding. The small towns along the corridor have capabilities to develop as the second center in Kedungsepur area. They have spesific potential, especially in agricultural (Ambarawa and Tuntang) and industry (Bergas and Bawen).

The optimization of these small towns role in the regional context will emerge a good linkage between rural and urban. Thus, the flow of good and services will result in integration in the spatial system. This will give the rural a better access to the urban facilities. Hence, the spatial and economic disparity will be smaller.

The factor dominantly affected the development along the corridor is industrial activity, that result in multiplier activities to serve the industrial and workers' need. This activity cause the increasing need of transportation, settlement, and services. The activities are then more variously in types and size.

The freeway building will also bring the effect on this towns, especially in urban and economic structure. This area will lost the activity, because their role as transit point as previously they hold will be no more longer. So, it is important to create some activities/facilities, to attract people to stop or stay there. The role of the small towns will be more optimally when they focused on their each potential. The best way is to develop the competitive advantages they have.

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