Competitiveness Analysis of Regencies and Cities in West Java Province

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Article Info	Abstract

Regional economic competitiveness aims to provide sustainable economic growth, namely developing leading sectors in accordance with the potential and needs of the region in order to improve the welfare of the community. This research aims to determine regional competitiveness in 4 (four) regencies and cities in West Java Province including The City and Regency of Bogor, Karawang Regency, Purwakarta Regency, Cirebon Regency, Indramayu Regency and Garut Regency. The research method used are the Analytical Hierarchy Process (AHP) and Kendall's Coefficient of Concordance as its methodology with competitiveness indicators of the regional economy, infrastructure, institution, social and political aspects, natural resources, and human resources. The results showed that the quality of human resources is the key to successful regional competitiveness. Thus, the implementation of regional competitiveness to achieve sustainable economic development in the 4 (four) regencies/cities in West Java Province should be directed towards the development of human resources through quality education, dependency ratio reduction, worker productivity increase, unemployment rate decrease, health service improvement, and purchasing power enhancement to strengthen the foundation of sustainable development, increase regional competitiveness, and direct orientation towards economic globalization.

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INTRODUCTION

The economic development of a region is inseparable from the aspect of economic change or structural transformation. Basically, there are 4 (four) main dimensions in economic development, namely growth, poverty alleviation, economic change or transformation, and sustainable development from an agrarian society to an industrial society (Kariyasa, 2006).

Economic development is a process in improving the welfare of the community through the increase and equal distribution of community income. Economic development is based on a populist economic system and the development of leading sectors, especially labor-absorbing and export-oriented sectors, by increasing the ability of human resources and technology to strengthen the foundation of sustainable development, increasing competitiveness, and directing the orientation towards economic globalization (Arsyad, 1999; Mulyana, 2005). Regional development, which aims to achieve community welfare, must be conducted in line with sustainable development that can meet existing human needs without forsaking human ability to meet future needs (Bruntland, 1987; Eko & Djoko, 1996).

The regional economy structure is an underlying factor that distinguishes the state of regions; differences are closely related to the conditions and potential of a region. Thus, contribution differences of economic sectors can indirectly indicate the economical state of a region. In this case, sectoral ability to increase their production affects regional income, where changes in the sectoral contributions in the Gross Domestic Product (GDP) can create patterns of change in the regional economic structure.

The 2017 data from the Central Statistics Agency showed that the contribution of the agricultural sector to Indonesia's economic growth in the past seven years has decreased. In 2017, the contribution of the agricultural sector towards the GDP was 12.68%, a decrease when compared to its contribution towards the 2010 GDP, which reached 13.93%. The industrial sector also experienced a slight decline; however its contribution was still higher when compared to the

contribution of the agricultural sector. In 2017, the contribution of the manufacturing sector to GDP was 21.22%, whereas its contribution towards the 2010 GDP reached 22.04%. On the other hand, the contribution of the service sector to GDP in 2017 amounted to 42.72% or increased when compared to its contribution in 2010 which reached 40.63%. The data showed that in recent years, Indonesia has also experienced a structural economic transformation, where the contribution of the agricultural sector to GDP has decreased, and the contribution of the service sector to GDP has increased.

West Java's economic development is inseparable from national development when striving to meet development targets adjusted to each region's potential and problems. Likewise, in West Java, economy shift or structural transformation happens, from an agriculture-based economy to a service-based economy. The 2017 data from the Central Statistics Agency data showed that the contribution of the agricultural sector to the West Java Province GRDP was 7.44% or decreased when compared to its 2010 contribution which was 9.83%. More details can be seen in Figure 1.

Meanwhile, the contribution of the service sector (including financial and insurance services, corporate services, education services, and health services and social activities) to the GRDP of West Java Province increased from 6.82% in 2010 to 8.72% in 2017, whereas the manufacturing industry sector contributed the most to West Java Province's GRDP in the 2010-2017 period with an average contribution of 43.63% per year.

However, the relatively high economic growth in West Java Province was not followed by equal income distribution towards society. Economic inequality in West Java Province is still quite high, as seen from the above the national Gini Ratio average of West Java since 2011, amounting to 0.391 (BPS, 2011). In September 2016, West Java Province occupied the third-highest position, behind the Special Areas of Yogyakarta and Gorontalo, as the provinces with the highest Gini Ratio in Indonesia. The Gini Ratio of West Java Province is 0.402, while the national Gini ratio is 0.394 (BPS, 2016). This contrast showed that the

structural transformation, followed by economic growth in West Java Province, was not accompanied by a reduction in economic imbalance, rather economic inequality in West Java Province was still one of the highest in Indonesia. This data showed that many problems still exist, challenging the regional government to create sustainable and equitable development for better community welfare, among others through increasing regional economic independence. Regional independence can be achieved through increased competitiveness, not only oriented towards economic indicators, but also all efforts to manage its resources.

The importance of competitiveness also makes it become the three essential priorities of the nine visions, missions, and action programs of President Joko Widodo, known as Nawacita. Bappenas (2017) showed that the three priorities

related to competitiveness are (1) improving the quality of human life; (2) increasing people's productivity and competitiveness in international markets; and (3) realizing economic independence by driving the strategic sectors of the domestic economy.

Future challenges like economic globalization will be more serious, which is characterized by borderless trade and industry. Indonesia's ability to compete is a crucial factor in enabling the economic sectors to grow, develop, and provide public welfare. Competitiveness level is one of the parameters of the sustainable region concept. The higher the level of regional competitiveness, the higher the level of community welfare. Thus, this study aims to determine competitiveness at the regional level in West Java Province.
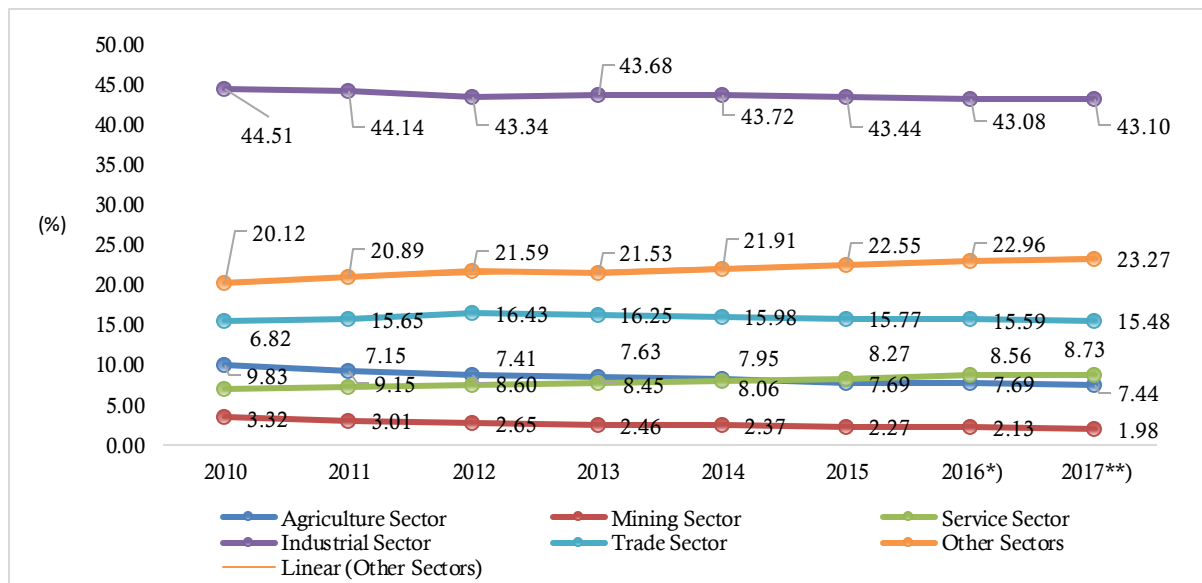

Figure 1. Contribution of Each Economic Sector to West Java Province's GRDP in 2010 - 2017

Source: Statistics Indonesia, 2018

RESEARCH METHODS

The research methods used to determine the regional competitiveness in West Java Province is the Analytical Hierarchy Process (AHP). The Analytical Hierarchy Process, hereinafter referred to as AHP, is a comprehensive and useful methodology to integrate qualitative and

quantitative factors in the decision-making process. AHP uses a hierarchical model that consists of objectives, criteria, sub-criteria, and alternative levels for each problem and decision (Saaty & Vargas, 2006). The multicriteria issue in AHP is simplified in the form of a hierarchy consisting of three main components, which are the objective of

decision making, assessment criteria, and alternative options. To set a decision, we need to decompose it into several steps that generate priorities in an organized way. In general, the procedure of AHP can be described in the following steps : (1) structure a decision problem and selection of criteria; (2) priority setting of the criteria by pairwise comparison (weighting); (3) pairwise comparison of options on each criterion (scoring); and (4) obtaining an overall relative score for each option (Saaty, 2008)

The measurement of regional competitiveness level is through qualitative and quantitative research, with the stages as follows. First, data collection techniques are (a) secondary survey to obtain data related to the value of the pre-determined sub-variables; (b) Primary survey to obtain the opinions of experts or people who are competent in their fields, which in turn will give weight to the relative comparison between sub-variables to be used in AHP. The experts who become respondents are experts that master their fields. There are 11 (eleven) respondents or experts for each variable.

Second, analysis phase which includes : (1) Identify each variable's priority weights or relative importance of the indicators in one variable. The Analytical Hierarchy Process (AHP) is utilized up to the determination of the criteria hierarchy or comparison of the relative importance of the criteria. The criteria referred to in this study as indicators. Before each indicator's data is processed with AHP, due to the diversity of each indicator's units, the data is first "standardized" to obtain a normal data distribution to be compared. The next step is to calculate the consistency ratio and rater agreement. The consistency ratio provides a numerical assessment of the evaluation's consistency. If the calculated ratio is less than 0.10, then consistency is considered satisfactory. Meanwhile, the rater agreement is a measure that shows the level of conformity or agreement of the respondents to a problem in one cluster (Legendre, 2005). The tool used to measure the rater agreement is Kendall's Coefficient of Concordance (W; $0 < W \le 1$). W = 1 shows perfect fit. The first thing to calculate Kendall's (W) Coefficient of Concordance is to rank each answer and then sum them.

$$R\_i = \sum\_(j=1)^m \llbracket = r\_ij \rrbracket$$

The average value of the total ranking is as follows:

$$\bar{R} = 1/n \sum\_(i=1)^n R\_i$$

The sum of the deviation squared (S) is calculated using the following formulation,

$$S = \sum\_(i=1)^m \llbracket = 1 \llbracket (R) \_i - \bar{R})^2 \rrbracket$$

therefore obtaining Kendall's (W) Coefficient of Concordance:

$$W = 12s/(m^2 (n^3-n))$$

if the test value of W is 1 (W = 1), the assessment or opinions of the respondents is concluded to have a perfect fit, whereas if the value of W is 0 or close to 0, it indicates a mismatch between the answers of respondents or varied answers. (2) Measuring the level of competitiveness between regencies/cities based on the variable values of the regional economy, infrastructure, institution, social and political aspect, natural resources and human resources is done by multiplying the values of the standardized indicators with the indikator priority values in each variable. The result of this weighted indikator value obtains competitiveness rating among all regencies/city anddifferences in the rank of competitiveness of several regencies/cities areas in West Indikator Province based on 4 (four) regions which include : (1) Region I represented by the City and Regency of Bogor; (2) Region II represented by Purwakarta Regency and Karawang Regency; (3) Region III represented by Cirebon City, Cirebon Regency and Indramayu Regency and (4) Region IV represented by Garut Regency.

Third, identify the compatibility between the leading indicators of each variable in each regency/city with the policy direction set by the government. The identification refers to the conformity of the predetermined leading sectors in each regency/city, with the leading indicators in each competitiveness variable in each regency/city. This comparison determines whether the leading indicators can strengthen the predetermined sector. The leading indikator in each regency/city is the highest weighted indikator value (indikator value multiplied by the priority weight with the highest value) owned by each regency/city and is an indikator of superior competitiveness for each regency/city. Fourth, data obtained from the

questionnaires were then processed using Super Decision 2.0.8 and Microsoft Excel 2019 software..

RESULTS AND DISCUSSION

Regional competitiveness is one of the central issues in maintaining regional resources to utilize external integration or global factors and for sustainable development, prosperity, and growth. Regional competitiveness is defined as a region's ability to achieve economic growth to create a high level of prosperity and sustainability, thus able to compete at the domestic and international level. Therefore, competitiveness is the accumulation of various factors; from the policy formulations to policy implementation in the form of institutions, governance, and infrastructure development.

The implementation of these policies must achieve regional productivity to improve the welfare of the people in the national or international economy scale. Competitiveness level is vital for regional development and people's welfare. The regional government has policies functioning as a regional development center and national and local activity centers, the competitiveness of each regency/city will provide services and spread development to the surrounding region. The higher the competitiveness of an economic system, the faster the development will grow. Competitiveness level is one of the parameters in regional sustainability; the higher the regional level of competitiveness, the higher the level of community welfare.

Competitiveness can be assessed by a variety of approaches and indicators, further enabling the ability comparison in terms of quantity or quality between regions on a national scale or an international scale between countries. The characteristics of regional competitiveness are determined by various factors including the area economy, regional or infrastructure facilities, institutions, social and political aspect, the availability of natural and human resources (Porter, 1990; World Economic Forum (WEF), 2014; European Commission, 2013 ; Institute for Management Development, 2013; Pitter, 2002 and; Central Bank Center for Education and Study (PPSK) and the Laboratory for Research,

Community Service and Economic Assessment (LP3E), 2008).

The hierarchy of the regional competitiveness of the Analytical Hierarchy Process (AHP) results can be seen in Figure 2, while the indicators used to measure the area's competitiveness can be explained as follows: (1) regional economy with the sub-variables of economic growth, productivity growth rate of the industrial sector, productivity growth rate of the service sector, productivity growth rate of the agricultural sector, transparency, fiscal capacity, innovation and savings in the region; (2) infrastructure with sub-variables of per capita telephone facilities, road quality, city area, road length per region, electricity production; (3) institutions with sub-variables of apparatus, legal certainty, and regional regulations; (4) social and political aspect with sub-variables of culture, security, and political stability; (5) natural resources with sub-variables of the availability and quality of land resources, water resources, and forest resources; (6) human resources with sub-variables of the number of dependencies, the labor force, the number of employment, unemployment, the percentage of the workforce, the percentage of productive age to the total workforce, the ratio of the number of teachers to students and the level of student participation.Regional Competitiveness, Based on the estimation results through the Analytical Hierarchy Process (AHP) from the questionnaire distributed to experts and interviewees in regions I through IV, the highest weighted priority of regional competitiveness is human resources.

Meanwhile, a consistency ratio of less than 0.10 is considered satisfactory, while a rater agreement value of 51% which indicates that the level of agreement or the suitability of the experts is greater so that it can give more confidence. The rank of priority weights for each indicator of regional competitiveness in various regions can be seen in Table 1.Table 1 shows that improving the quality of human resources is the key to successful regional competitiveness, both in regencies and cities in regions I, II, III, and IV of West Java Province. This can be realized as humans are subjects and objects in economic development.
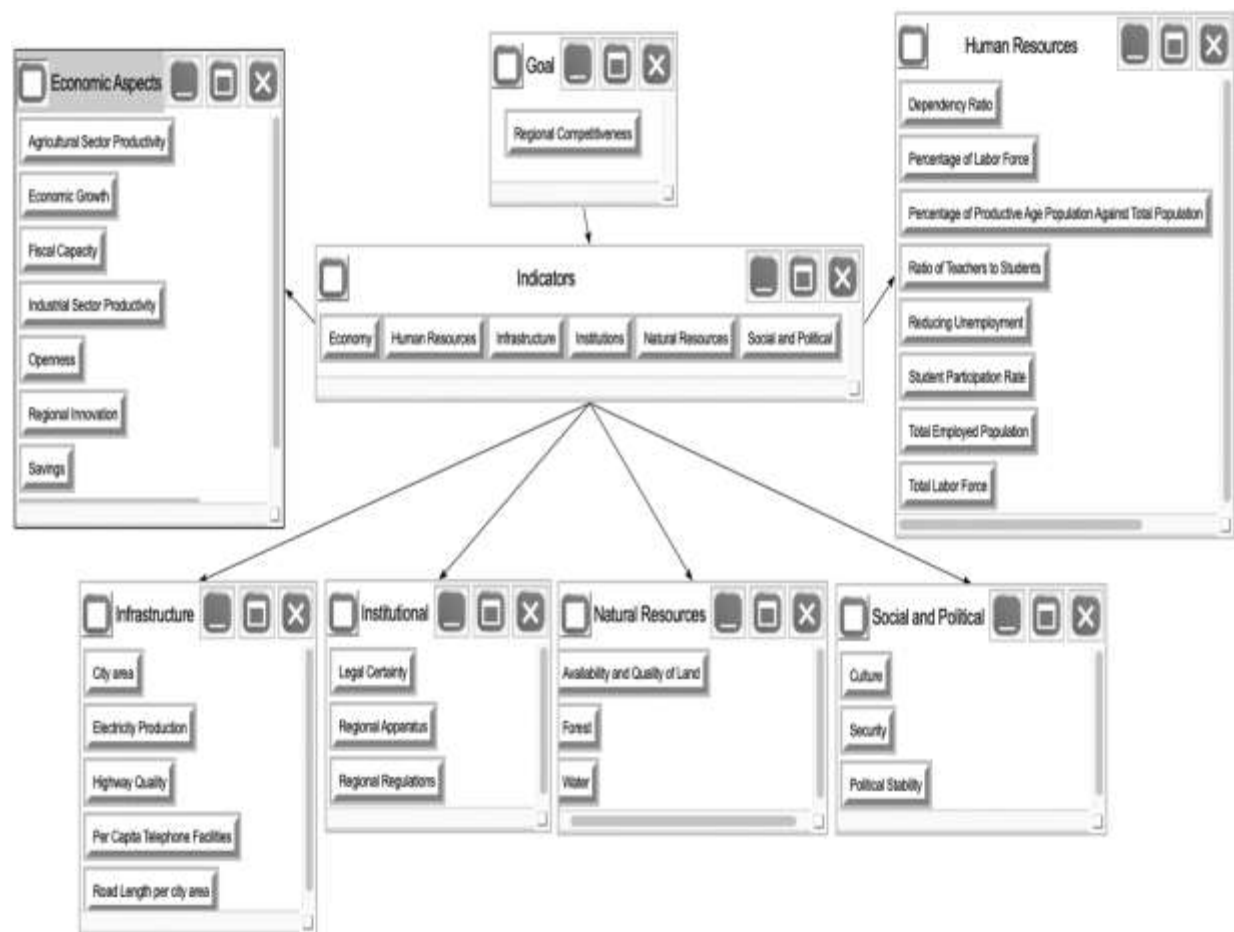
Figure 2. Analytical Hierarchy Process (AHP) of Regional Competitiveness

Thus, the implementation of regional competitiveness to achieve sustainable economic development is more directed towards the development of human resources through quality education, dependency ratio reduction, worker productivity increase, unemployment rate decrease, health service improvement, and purchasing power enhancement to strengthen the foundation of sustainable development, increase regional competitiveness, and the direction of orientation towards economic globalization.

In addition, the regional government is expected to increase performance to encourage regional economic activity by improving the quality of human resources as West Java's human resources have difficulty in competing. This difficulty can be seen from the Gross Enrollment Rate (GER) of universities in West Java, reaching only 17 percent, far lower than the GERs of several regions in Indonesia (UNDP, 2017). The low level of education enrolment has caused some West Java human resources to shift to the informal sector. Moreover, the weak competitiveness has caused unemployment rates in West Java to be quite high, thus indirectly associating with the higher poverty rates in West Java.

Regency and City Competitiveness Ranks Based on Regional Economy Aspects, The rank of

regional competitiveness from the economy aspect showed that economic growth is a top priority in supporting competitiveness in regions I and II (The City and Regency of Bogor, Karawang Regency, Purwakarta Regency).

Economic growth is a top priority in supporting competitiveness, bearing in mind that Regions I and II have great potential to strengthen the competitiveness of industrial estates, which in turn can contribute significantly to national economic growth. In addition, one of the existing developments being pushed by the Karawang Regional Government is Karawang New Industry City (KNIC). In the KNIC concept, the industrial estate is a part of the development of a world-class integrated industrial city (Bank Indonesia, 2018). Thus, this industrial city is expected to encourage innovation and contribute to the increase of regional economic growth and create a multiplier effect that is beneficial for the socio-economic development in Karawang and the surrounding area. Meanwhile, region III (Cirebon and Indramayu Regency) is a region with the service sector productivity rate. This finding is in line with previous research (Hendriani & Findi, 2013; Saputra, 2016) which showed that services such as the trade, hotel, and restaurant sectors have high competitiveness in the Cirebon and Indramayu Regency.

Table 1. Regional Competitiveness Priority Weights

Region	Regency /City	Priority Weight Value					
		Economy	Infrastructure	Institutions	Social and Political aspect	Natural Resources	Human Resources
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
I	The City and Regency of Bogor	0.19	0.18	0.17	0.09	0.12	0.25[*]
II	Karawang Regency, Purwakarta Regency	0.13	0.17	0.18	0.11	0.16	0.25[*]
III	Cirebon Regency, Indramayu Regency	0.22	0.07	0.17	0.15	0.13	0.26[*]
IV	Garut Regency	0.13	0.16	0.15	0.17	0.12	0.27[*]

Source : Study Analysis, 2019
Comments : Consistency Ratio is 0.080
Rater Agreement is 51%
* = Highest priority rank for certain cities/regencies

Furthermore, the determinant factor for regional competitiveness from the economic aspect in region IV (Garut Regency) is the productivity rate of the agricultural sector, given that the agricultural sector dominates the contribution of economic growth in Garut Regency (Novita, 2013: Tsurayya & Kartika, 2015; Susamto et al., 2014). More details can be seen in Table 2 below.

Regency and City Competitiveness Ranking Based on Infrastructure Aspects, The results of regional competitiveness from the infrastructure aspect show that in regions I and II (The City and Regency of Bogor, Karawang Regency, Purwakarta Regency) the road length per city area of the region is the highest priority. Meanwhile, in region III (Cirebon Regency and Indramayu Regency) electricity production is a determinant of regional competitiveness from the infrastructure aspect, whereas, in region IV (Garut Regency), the highest rank that determines the region's competitiveness from the infrastructure aspect is the per capita telephone facility.

Table 2. Priority Weight of Regional Competitiveness in the Economic Aspects

Regency /City	Weighted Priority Value							
	Regional Innovation	Fiscal Capacity	Openness	Industrial Sector Productivity	Service Sector Productivity	Agricultural Sector Productivity	Economic Growth	Savings
(2)	(3)	(4)	(5)	(6)	(7)	(8)	(8)	(8)
The City and Regency of Bogor	0.09	0.11	0.07	0.16	0.17	0.13	0.21[*]	0.06
Karawang Regency, Purwakarta Regency	0.11	0.10	0.12	0.16	0.14	0.08	0.20[*]	0.09
Cirebon Regency, Indramayu Regency	0.09	0.06	0.13	0.19	0.20[*]	0.18	0.07	0.08
Garut Regency	0.16	0.17	0.09	0.12	0.07	0.18[*]	0.14	0.06

Source : Study Analysis, 2019
Comments : Consistency Ratio is 0.071
Rater Agreement is 63%
* = Highest priority rank for certain cities/regencies

The City and Regency of Bogor, Karawang and Purwakarta Regency are industrial regions, where businessmen aim to have steady businesses both in terms of collaborating with other business or in regards to expensive transportation costs of goods. The results of this study are consistent with the results of previous studies (Amrullah, 2006; Calderon et al., 2011) which stated that road infrastructure plays a vital role in per capita output and the level of worker productivity. Directorate General of

Highways (Direktorat Jenderal Bina Marga, 2014) stated that as much as 82% of national logistics still use road transportation. Therefore, the number of vehicles cannot exceed road performance. Longer roads will reduce congestion and improve performance (Sanchez-Robles, 1998).Electrical infrastructure plays a strategic role in development activities, both nationally and regionally. Electrical energy is a vital energy for companies, both for commercial and non-commercial use (Fitriantie & Wahyu, 2016). The main drawback when increasing investment in Indramayu Regency is the low quality of infrastructure, as sufficient infrastructure is vital when developing the economy of the community. The infrastructure includes all facilities, such as transportation infrastructure, education, health, water resources, and electricity (Komadin et al., 2013). Thus, Indramayu Regency's main priority in

increasing its competitiveness from the aspect of infrastructure includes the improvement of electricity, besides water resources.

Communication services are essential for a more effortless flow of information and communication. Communication facilities in Garut Regency, especially in Rancabuaya, have been relatively inadequate. Although some cellular phone providers have entered villages and complemented cable telephone services, towers still need to be constructed to better the flow of communication (Bappeda Jabar, 2016). Thus, to improve regional competitiveness, the priority of competitiveness from the infrastructure aspect in Garut Regency is more focused on providing telephone facilities. The rank of priority weights for each indicator in terms of infrastructure in various regions can be seen in Table 3 below.

Table 3. Priority Weight of Regional Competitiveness in Infrastructure Aspects

| Region | Regency /City | Priority Weight Value | | | | |
		Per Capita Telephone Facilities	Highway Quality	City area	Road Length per city area	Electricity Production
(1)	(2)	(3)	(4)	(5)	(6)	(7)
I	The City and Regency of Bogor	0.11	0.29	0.10	0.38*	0.12
II	Karawang Regency, Regency Purwakarta	0.13	0.24	0.11	0.40*	0.12
III	Cirebon Regency, Indramayu Regency	0.12	0.14	0.10	0.07	0.58*
IV	Garut Regency	0.35*	0.24	0.11	0.08	0.22

Source   : Study Analysis, 2019
Comments : Consistency Ratio is 0,065
                   Rater Agreement is 77%
                   * = The highest priority rank for certain cities/regencies

Regency and City Competitiveness Ranking Based on Institution Aspects, the highest priority of the regional competitiveness rank in the aspects of institutions in supporting the competitiveness of

region I, II, III and IV in the province of West Java is the factor of legal certainty. The rank of priority weights for each indicator in terms of institutions in various regions can be seen in Table 4 below.

Table 4. Priority Weight of Regional Competitiveness in Institutional Aspects

| Region | Regency /City | Priority Weight Value | | |
		Regional Apparatus	Legal Certainty	Regional Regulations
(1)	(2)	(3)	(4)	(5)
I	The City and Regency of Bogor	0.20	0.45*	0.35
II	Karawang Regency, Purwakarta Regency	0.22	0.40*	0.38
III	Cirebon Regency, Indramayu Regency	0.32	0.35*	0.33
IV	Garut Regency	0.17	0.44*	0.39

Source   : Study Analysis, 2019
Comments : Consistency Ratio is 0,089
                   Rater Agreement is 67%
                   * = The highest priority rank for certain cities/regencies

Increasing regional competitiveness cannot be achieved without a sound legal system and independent law enforcement. The institutional factor consists of 3 (three) variables, namely regional apparatus variables, legal certainty, and regional regulation variables. Table 4 above concludes that the institutional factor, especially the legal certainty variables, needs to be considered to improve economic competitiveness and must be in line with the apparatus and economy of the region (Risnain, 2016). Therefore, increasing the economic competitiveness of a region cannot be achieved without a good legal system and independent law enforcement.

Regency and City Competitiveness Ranking Based on Social and Cultural Aspects, the social and cultural aspects that determine the competitiveness of regions in various regions, from region I to IV, are security factors. The rank of priority of social and cultural aspects in various regions can be seen in the following Table 5.

Table 5. Priority Weight of Regional Competitiveness in Social and Political Aspects

Region	Regency /City	Priority Weight Value		
		Culture	Stability	Political Security
(1)	(2)	(3)	(4)	(5)
I	The City and Regency of Bogor	0.21	0.44*	0.35
II	Karawang Regency, Purwakarta Regency	0.14	0.53*	0.33
III	Cirebon Regency, Indramayu Regency	0.09	0.46*	0.45
IV	Garut Regency	0.17	0.44*	0.39

Source   : Study Analysis, 2019
Comments   : Consistency Ratio is 0,006
                    Rater Agreement is 81%
                    * = The highest priority rank for certain cities/regencies

Regional economic activity will not be optimal without a safe or stability situation. Thus, the safety or stability factor is an essential factor in determining regional competitiveness. Table 5 shows that all regencies and cities in region I-IV of West Java Province prioritize their security or stability, making them determinants of regional competitiveness. Social and political stability through a functioning democratic system is a conducive climate in encouraging regional economic activities that are competitive. These findings are in line with previous research which stated that regions with high competitiveness are regions that have security, political, socio-cultural, and bureaucratic conditions that support the business (KPPOD, 2013).

Regency and City Competitiveness Ranking Based on Natural Resources Aspects, the Analytical Hierarchy Process (AHP) estimation results show that the highest priority rank in the aspect of natural resources for regional competitiveness in regions I to IV in West Java Province is water resources. More details can be seen in Table 6 below.

Resources can be divided into mineral, agriculture, forestry, fishery, and environmental resources. Mineral resources are a consumable resource, and energy resources such as coal, oil, and natural gas can be separated from non-energy resources such as iron ore, gold, and silver. Agriculture, forest, and fish stocks can be renewed, and environmental factors consist of land, weather, water, and other natural resources. All these resources can create inputs into economic activities and increase regional competitiveness. The water resources include all the potential contained in water, including the water animals. competitiveness in West Java Province. These findings are in line with previous research conducted in West Java Province which showed that the water resources including all the potentials contained in water can increase the level of regional competitiveness (West Java Province Water Resources Agency, 2018).

Regency and City Competitiveness Ranking Based on Human Resources Aspects, the estimation results of the region's competitiveness from the Human Resources aspect shows that the number of employed population is the highest priority in supporting regional competitiveness, in regions I, II, III, and IV in West Java Province. Labor is an essential indicator in increasing the competitiveness of a region's economy.

Table 6. Priority Value of Regional Competitiveness from the Aspects of Natural Resources

| Region | Regency /City | Priority Weight Value | | |
		Availability and Quality of Land Resources	Water resources	Forest resources
(1)	(2)	(3)	(4)	(5)
I	The City and Regency of Bogor	0.29	0.51*	0.20
II	Karawang Regency, Purwakarta Regency	0.31	0.49*	0.20
III	Cirebon Regency, Indramayu Regency	0.26	0.64*	0.10
IV	Garut Regency	0.42	0.46*	0.13

Source : Study Analysis, 2019
Comments. : Consistency Ratio is 0,054
Rater Agreement is 59%
* = The highest priority rank for certain cities/regencies

Based on the analysis and perception of the respondents, the number of employed residents is expected to increase, thus improving regional and city economy competitiveness in West Java Province. These findings are in line with previous research conducted in Southeast Sulawesi Province (Irawati et al., 2012), which showed that the regional development in the cities and regencies in Southeast Sulawesi Province seeks to improve competitiveness, although facing problems along the way. These problems are partly due to the lack of quality human resources caused by low levels of education and low quality of life of the community as well as lack of infrastructure and facilities to support the welfare of society. More details about the priority rank for each indicator from the human resources aspect of various regions can be seen in Table 7 below.

Table 7. Priority Weight of Regional Competitiveness from the Human Resources Aspect

| Region | Regency /City | Priority Weight Value | | | | | | | |
		Dependency Ratio	Total Labor Force	Total Employed Population	Reducing Unemployment	Percentage of Labor Force	Percentage of Productive Age Population Against Total Population	Ratio of Teachers to Students	Student Participation Rate
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(8)	(8)
I	The City and Regency of Bogor	0.09	0.13	0.21*	0.11	0.12	0.16	0.10	0.08
II	Karawang Regency, Purwakarta Regency	0.13	0.07	0.20*	0.10	0.12	0.15	0.09	0.14
III	Cirebon Regency, Indramayu Regency	0.08	0.15	0.20*	0.11	0.14	0.09	0.07	0.16
IV	Garut Regency	0.06	0.04	0.28*	0.05	0.10	0.14	0.16	0.17

Source : Study Analysis, 2019
Comments : Consistency Ratio is 0,076
Rater Agreement is 67%
* = The highest priority rank for certain cities/regencies

CONCLUSION

Several findings can be concluded from this study. First, this study found strong evidence that the highest priority determinants of regional competitiveness of the regencies and cities in regions I, II, III, and IV in West Java Province is the quality of human resources. This can be seen from the low gross enrollment rate (GER) of universities in West Java, which only reached 17 percent, far lower than the GERs of several regions in Indonesia. The low level of education participation has caused some West Java human resources to shift to the informal sector. Moreover, the weak competitiveness has caused unemployment rates in West Java to be quite high, thus indirectly associating with higher poverty rates.

Second, the rank of regional competitiveness from the aspect of regional economic shows that economic growth is a top priority in supporting competitiveness in regions I and II (Regency and City of Bogor, Karawang Regency, Purwakarta Regency).

Third, regional competitiveness from the infrastructure aspects in regions I and II (The City and Regency of Bogor, Karawang Regency, Purwakarta Regency) showed that the factor of road length per region is the highest priority. Meanwhile, in region III (Cirebon Regency and Indramayu Regency) electricity production is a determinant of competitiveness from the infrastructure aspect, while region IV (Garut Regency) shows that the highest priority in determining regional competitiveness from the infrastructure aspect is per capita telephone facilities.

Fourth, the highest priority of regional competitiveness from the aspects of Regency and City Institutions in West Java Province is the factor of legal certainty. Fifth, the social and cultural aspects that determine regional competitiveness in various regencies and cites are security factors. Sixth, the highest priority of the natural resource aspects that determines regional competitiveness in the regencies and cities in the Province of West Java is water resources. Finally, the working population is the highest priority in supporting regional competitiveness in various regencies and cities in West Java Province.

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