Fiscal Decentralization and Local Potentials
Improvement in Madura Region

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Abstract—Fiscal decentralization has the goal of providing opportunities for regions to explore the potential funding sources as well as they have. In this discussion, we will review how fiscal decentralization implemented in the region of Madura. The discussion will be more in-depth about the impact and the influence of fiscal decentralization on efforts to increase the local potential in Madura region. This study used a combined research method between qualitative research methods and literature study. The result of this study indicates that Madura region is had some of the potentials that can be developed, but the potential is yet to be optimized because there are still some constraints especially for oil and gas mines potential where the regulation used has not been able to benefit the local government. Therefore, it is necessary to review some fiscal policies that related to the management of local potential in the Madura region, so that some of the potentials can be maximized.

Keywords—decentralization, fiscal, local potential.

I. INTRODUCTION

Developing countries face severe limits on state capacity, both in raising revenue and in delivering public services effectively [1]. In particular, regional governments are often in charge of delivering local public services, but cannot raise the required revenues to finance these expenditures. These so-called “vertical fiscal imbalances” should either be covered by centrally provided transfers or just bypassed by decentralizing tax powers to regional governments [2]. Over the past decade, most developing and transitional countries have either embarked upon or stated their intention to embark upon some type of fiscal decentralization initiative [3]. This article considers and correlates the theory and evidence of decentralization in the Madura region, and illustrates how local government efforts in the Madura region in increasing the local potential, be it budget potential, natural resource potential, and human resource potential through decentralization policy especially fiscal decentralization.

Fiscal decentralization (FD), defined as the devolution of fiscal power and responsibilities to sub-national governmental units, has been argued to improve democratic governance practices and thus to contribute to economic efficiency [4]. In Indonesia, the development of fiscal decentralization policy has undergone several changes along with the revision of the Law related to Regional Autonomy, one of the latest regulations used as a foothold in the implementation of fiscal decentralization policy is Law No. 23 of 2014 about Local Government.

Whether fiscal decentralization leads to a reduction or an increase in the size of the public sector is a well-researched question within the field of fiscal federalism [5]. The unfinished agenda in the theory and practice of fiscal decentralization is to understand how fiscal decentralization affects the traditional economic objectives of economic efficiency, horizontal fiscal equality, and macroeconomic stability; and how these may, in turn, affect economic growth. Understanding these linkages, and quantifying any potential tradeoffs associated with them, should help produce more informed policies for fiscal decentralization in developing and transitional economies [3]. In the classic Tiebout (1956) framework, benefits of decentralization arise because preferences for public goods are revealed through inter-jurisdictional sorting, and local uniform taxes are benefits taxes because preferences within each jurisdiction are homogeneous [1]. Previous theoretical studies have shown that fiscal decentralization helps improve the efficiency of the public sector and promote economic growth because local governments are better positioned than the central government to provide public services that match local preferences and needs [6]. Some have argued that the Tiebout rationale for decentralization does not apply to
A. Potential of Madura Region

As for the fiscal decentralization and government expenditure composition, Tiebout (1956) argues that inter-jurisdictional competition leads to efficient public goods provision when both labor and capital are free to move. Under the scenario with only mobile capital, Keen and Marchard (1997) show that fiscal competition may cause systematic inefficiencies in the composition of government expenditures; that is, local governments are willing to spend more on public inputs to attract capital and to under-provide public services that benefit local residents [9].

Overall, revenues from local taxes in four districts are Rp. 93,572,000,000. Income from local levies is Rp. 65,060,000,000. Revenue from the result of separated local wealth management is Rp. 25,013,000,000. Revenue from other legitimate areas of Original Local Government Revenue (OLGR) is Rp. 539,685,000,000. Interestingly, the Original Local Government Revenue from the four districts on the Madura island was Rp. 723,330,000,000. This amount is still far below the district of Sidoarjo which amounted to Rp. 1,335,284,000,000.

The local financial potential of the four districts in Madura is also weak. The average contribution of OLGR to total revenue in Madura district is less than 12%. These conditions are different to some other districts in East Java such as Surabaya, Gresik, and Sidoarjo. In Surabaya, the OLGR generated for regional income reached 59.9%. While Gresik Regency has the OLGR of 28.4% of total regional income, while Sidoarjo regency gets 36.4% of total regional income. The chart below shows that the district with the lowest OLGR contribution was Bangkalan whose value was only 8.26% of total regional revenue. Then followed by Sampang with 9.02%. Sumenep District with 9.86%. As for the highest OLGR in Madura belongs to Pamekasan district, its OLGR only able to contribute 11.23% of total revenue.

Figure 1.
Total Original Local Government Revenue (OLGR) Four Districts in Madura According to Source In Local Revenue and Expenditure Budget Year 2016 (in millions)

Source: DJKP, The Ministry Of Finance

The chart below shows that the district with the lowest OLGR contribution was Bangkalan whose value was only 8.26% of total regional revenue. Then followed by Sampang with 9.02%. Sumenep District with 9.86%. As for the highest OLGR in Madura belongs to Pamekasan district, its OLGR only able to contribute 11.23% of total revenue.

III. RESULTS AND DISCUSSION

A. Potential of Madura Region

The land in the Madura archipelago is less fertile enough to be used as agricultural land. The limited economic opportunities have resulted in unemployment and poverty. These factors have resulted in long-term immigration from Madura so nowadays many Madurese do not live in Madura. Madurese are among the largest immigration from Madura so nowadays many Madurese do not live in Madura. Madurese are among the largest immigration from Madura so nowadays many Madurese do not live in Madura. Madurese are among the largest immigration from Madura so nowadays many Madurese do not live in Madura. Madurese are among the largest immigration from Madura so nowadays many Madurese do not live in Madura.
The limited condition of original local revenue shows that there are still limited sources of local revenue that can be developed so as to weaken the ability of the regions to finance development activities independently. Without any changes in the sources of original local revenue, efforts to increase the economic potential in the Madura Region will be severe.

- **Natural Resource Potential**

  Local authorities in different countries face challenges on their way to sustainable development: they have to choose between resource-based economy, with natural resources being a source of “quick income”, and ecosystem conservation for the further use of ecosystem services [10]. Madura island has an area of 54,887 square kilometers. The island is known as a salt producer. From the potential side of salt, Madura is able to contribute about 70 percent of the national consumption salt needs. In 2015 the production of salt in Madura reached 914,484 tons. In addition to having a wealth of salt, Madura also has the potential for oil and gas scattered in four districts. As an illustration, in 2016, a special unit of oil and gas dared to target the oil production of West Madura Offshore Block (WMO) by 10,025 Barrels of Oil per Day (BOPD) and 102.6 Million Standard Cubic Feet per Day (MMSCFD). WMO operating area is located in the southwest of Madura Island, with an area of 1,666,626 km².

  However, the revenue from the oil and gas sector may not be used as the mainstay. As it has been conceived together, that the percentage received by oil and gas producing areas is not significant. In addition, the Revenue Sharing Fund will follow the nature of the upstream oil and gas industry, including the macro and international situation. Oil and gas is also a non-renewable natural resource so that the oil and gas revenue-sharing received in a certain period will decrease, even when the oil and gas reserves are no longer productive.

- **Human Resource Potential**

  The capital region is the construction of important human resources, one of the indicators to measure the quality of human resources is the Human Development Index (HDI). The Human Development Index (HDI) aims to provide a broader characterization of “development” that is possible by focusing on national income alone [11]. Along the 2009-2013, the human development index in four districts in Madura Islands continues to rise.

**Figure 3. Human Development Index of Four Districts in Madura Year 2009-2013**

Among the four districts in Madura, the highest HDI in 2013 is at Pamekasan, and the lowest is at Sampang. In 2009, the Human Development Index in Bangkalan is 64 and continue to increase to 66.9 in 2013. While Sampang, the HDI is at 58.67 in 2009 and increase to 62.39 in 2013. For Pamekasan, HDI in 2009 was 64.81 and increased to 67.17 in 2013. In Sumenep, the Human Development Index in 2009 was 64.81 and increased to 66.89 in 2013.

The other Indicator of human resource potential mapping is the literacy rate. Literacy was once considered to mean the ability to read and write; those who cannot reach a very basic standard, for example, writing one's name are considered illiterate [12]. Based on the data, the literacy rate of the population in four districts in Madura continues to increase. Nevertheless, the close numbers are still below the average of East Java. East Java literacy rate in 2013 is 90.49. The basic definition of literacy includes not only reading and writing but also a range of skills used in work done at home, so-called “literacy” in a broader sense [12].

**Figure 4. Literacy Rate of Four Districts in Madura Year 2009-2013**

*Source: Central Bureau of Statistics of East Java Province*
In the same year, the lowest literacy rate of the population in Madura was in Sampang district with the number 69.47, followed by Sumenep district 78.75, Bangkalan 82.93 and the highest in Pamekasan with the number 84.48. This condition shows that education is a crucial policy issue in Madura.

B. Challenges In Improving Local Potentials in Madura Region

The challenges facing Indonesia are not only related to economic growth but also related to equitable development [13]. Interregional inequality is a common occurrence in the development activities of a region. The discrepancy arises because of differences in economic resources and demographic conditions in each territory so that the ability of a region in the development process also becomes different. This inequality ultimately also implies the level of community welfare. In this context will be discussed several challenges in an effort to increase the local potential in Madura.

- Economic Growth

Economic transformation is an inevitable problem which a country will experience in the process of its long-term economic development. According to international experience, both developed countries and newly industrialized countries achieved sustained and rapid development through the economic transformation and upgrading [14]. The provincial government of East Java has mapped the district's economic growth capability in reducing poverty to four quadrants. Quadrant I is an area with average economic growth and poverty reduction above the provincial average. This means that economic growth occurring in quadrant I can push poverty reduction more quickly (pro-growth, pro-poor). Quadrant II is an area with economic growth below the provincial average but poverty reduction is above the provincial average (low-growth, pro-poor). Quadrant III is an area with average economic growth and poverty reduction below the provincial average (low-growth, less pro-poor). Quadrant IV is a city with an average of economic growth above the average, and the reduction of poverty below the provincial average (high-growth, less pro-poor).

From the mapping of East Java Province, Pamekasan, Sampang, Sumenep, and Bangkalan included into the second quadrant. The districts in this quadrant are expected to maintain the effectiveness and efficiency of poverty alleviation policies and programs and simultaneously promote the acceleration of economic development with the priority of economic sectors that have the potential to develop, such as marine, fisheries, agriculture, and trade and services.

The mapping indicates that the weakness of the fourth district in Madura is economic growth below the provincial average. But they can make poverty reduction above the provincial average. For Sampang and Pamekasan has succeeded in increasing the HDI below the provincial average. While Bangkalan is able to reduce unemployment above the provincial average.

- Budget Capabilities

One important instrument to assess the independence of the region is the source of local income. Of the four districts on the Madura, Sumenep is the region with the highest OLGR of Rp. 200,981,000,000, followed by Bangkalan of Rp. 200,081,000,000, Pamekasan of Rp. 165,075,000,000 and Sampang Rp. 135,783,000,000. With the exception of Sampang district, in the other three districts, taxes and user charges account for less than half the total OLGR.

### TABLE I.
Original local government revenue in local revenue and expenditure budget year 2016

<table>
<thead>
<tr>
<th>District</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangkalan</td>
<td>64.00</td>
<td>64.50</td>
<td>65.01</td>
<td>65.68</td>
<td>66.19</td>
</tr>
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</tr>
<tr>
<td>East Java</td>
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<td>71.61</td>
<td>72.17</td>
<td>72.83</td>
<td>73.54</td>
</tr>
</tbody>
</table>

Source: DJKP, The Ministry Of Finance

Interestingly, the total local revenue from the four districts on the island of Madura is Rp. 725,330,000,000. This amount is still far below Sidoarjo which amounted to Rp. 1,335,283,000,000 or Surabaya which amounted to Rp. 4,090,206,000,000. In both districts, taxes are the largest component of indigenous revenues. If seen the amount of local financial capacity, the financial potential of the four districts in Madura region is also weak. Average local revenue contribution to total local revenue in Madura district is below 12%. Districts with the lowest percentage of OLGR are Sampang which is only 7.9% of total OLGR. Then followed by Pamekasan with 9.76%. Sumendep Regency with 9.72%. The Bangkalan OLGR district-owned is able to contribute 10.92% of the total regional income. The lack of OLGR sources that can be developed will undermine the capacity of regions to finance development activities independently.

- Human Development Index

The Human Development Index of four districts in Madura continues to increase. However, the numbers are still below the average of East Java.

### TABLE 2.
Human Development Index of Four Districts In Madura Year 2009-2013

<table>
<thead>
<tr>
<th>No</th>
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Source: Central Bureau of Statistics of East Java Province
Based on the data, the human development index of East Java in 2013 was 73.54. While in the same year, the human development index in Pamekasan 67.17, Sumenep 66.89, Bangkalan 66.19 and Sampang with 62.39.

C. Fiscal Policy Strategies In Responding Challenges

We can understand that the ability of a region in advancing its territory is affected by various factors, one of the factors that impede the progress of a region is uneven development. This also happened in Madura, where there are inequality and uneven development between Madura and other areas in East Java. Therefore, various factors that affect development in Madura needs to be examined for proper policy in improving the development of Madura Region.

Madura island is a region with a large maritime potential and needs to be encouraged to accelerate the development of the marine economy. Some studies indicate that there are still some factors that inhibit local economic growth such as low quality of human resources in small and micro sectors, low level of local people’s welfare, limited business capital, and limited marketing strategies for business types.

- Local Economic Development Policies

Local Economic Development (LED) has emerged globally as a vital planning approach for local economies [15]. Madura has oil and gas potential spread over four districts. However, revenue from the oil and gas sector may not be too reliable, this is because the percentage received by oil and gas producing region is not very significant. The basis used by the government to divide the percentage of revenue-sharing funds for oil and gas is still using Law No. 33 of 2004 about the Financial Equilibrium between the Central Government and the Regional Government. The law provides that petroleum revenues, net of components of taxes and other levies, are shared by 84.5% for central government and 15.5% for local governments. From this 15.5% figure, 0.5% is allocated to supplement the basic education budget in the region concerned. The remaining 15% divided by 3% details for the province, 6% for producing districts; and 6% for other districts/municipalities within the province concerned. As for the revenues from natural gas, the division is 69.5% for the central government and 30.5% for the regions. For 0.5% of the rights of this area will be allocated to supplement the basic education budget in the area concerned. The remaining 30% is divided by 6% details for the province; 12% for producing districts; and 12% for other districts. Whereas in Law Number 23 of 2014, the regulation of profit sharing from petroleum and natural gas mining is regulated in article 289 paragraph (4) point c and d, and to determine the producing regions, as well as the plan of state revenue from natural resources per region as the basis of the allocation of natural resource revenue-sharing funds, shall be stipulated by the Technical Minister stipulated in article 289 paragraph (5) [16].

Generally, nothing has changed between Law No. 33 of 2014 and Law No. 23 of 2014 relating to natural resource revenue sharing. What needs to note is how the current revenue-sharing fund can be made to build the resilience of the local economy of nonoil and gas sector, so that the regional development process can be maintained despite its oil and gas reserves run out. Only then will the Oil and Gas Revenue Sharing Fund truly be a blessing for the local people.

- Infrastructure Development Policy

Infrastructure is the main support of business processes implementation, development, projects, and so on. Infrastructure becomes an important element for the economic growth and development of a region because the infrastructure facilitates and integrates economic activities. The broadest concept of infrastructure contains both “physical infrastructure” and “social infrastructure” like education and the maintenance of environmental quality [17]. Examples of physical infrastructure include roads, water facilities, telecommunications, irrigated agriculture, and others. Good road conditions can facilitate mobility of goods and services. Irrigation facilities can improve the quality of agricultural land so that productivity will increase. The availability of clean water is a support for the community to live a healthy life.

The factor that must be considered in addition to infrastructure is security. The development of the industrial sector not only builds factories and markets their products but builds systems to develop independently in the economic structure of local communities. One of the challenges faced by the current national industrial is low competitiveness due to an increase in economic costs and inadequate bureaucratic services.

IV. CONCLUSIONS AND RECOMMENDATIONS

A. Conclusion

The potential of natural resources, budget, and human resources in Madura, when managed properly, can be an important capital for development in the Madura region. However, the challenges faced by the Madurese not only lie in these three potentials but also the inadequate application of the fiscal policy to support the increasing potential in Madura region. In spite of the increase in some of the potential, the increase is still far behind compared to some regions in East Java Province.

Some of the challenges that were identified as a debilitation for Madura include the low economic growth of the four districts in Madura compared to some areas in East Java Province as well as limited local revenues as many sources of indigenous revenues cannot be developed as a source of local development independently.

B. Recommendation

There is a need for a fiscal decentralization policy that can optimize local revenue sources for the four districts in the Madura region. One example is the revenue sharing policy related to sources of oil and gas revenues that can be diverted to build local economic resilience in the non-oil and gas sector so that the development process in the region can
still be maintained even though oil and gas reserves are exhausted.

ACKNOWLEDGMENT

The author would like to thank the Government of Bangkalan, Pamekasan, Sampang, and Sumenep, as well as public figures and private organizations who have helped the author by providing data both in the form of primary and secondary data in support of this paper. All forms of pure error come from the author.

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