

Industrial Revolution 4.0, Society 5.0 and Sustainable Development Goal's (SDG's); an Overview from Local Government Intervention

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ABSTRACT

Industrial revolution 4.0 cannot be separated from Society 5.0. This concept aims to balance technology with a human-centered approach. This approach is in line with the SDG's agenda in achieving the common target of human society through reducing poverty worldwide. NTT Province gets great attention in terms of poverty reduction, because it has a very low average poverty reduction, the improvement in the quality of human resources is in a very worrying condition. Movement of spending on the poverty function experienced a fairly sharp volatility. If there is a positive change in the expenditure component, it can be concluded that the local government is quite good at controlling spending policy because it is still in line with the SDG's agenda's through the development of regional innovation, fiscal policy and optimization. Based on the explanation above, it can be concluded that Industrial revolution 4.0 and Society 5.0 in Indonesia are still difficult to implement in a balanced manner, especially for areas with very low poverty reduction rates such as NTT which are still experiencing serious problems in the readiness of human resources. One of the causes is the weak government intervention in improving the quality of human resources through controlling poverty function spending policies



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INTRODUCTION

Industrial revolution 4.0 focuses on changing technology and information systems into digital form through networks that have an impact on human life, both in developed and developing countries (Muljani & Ellitan, 2019). Industrial revolution 4.0 cannot be separated from Society 5.0. The concept of Society 5.0 is a core concept by the Japanese Government in terms of the economic basis and management policy. This concept aims to balance technology with a human-centered approach. This approach is in line with the SDG's agenda in achieving the common target of human society through reducing poverty worldwide. This picture shows that Industrial revolution 4.0 and Society 5.0 are centered in humans who balance between economic movements and solving social problems through a system that is connected to cyberspace and the real world.

Industrial revolution 4.0 in Indonesia has penetrated almost all fields, including government, transportation, education, health and the economy (Natalia & Ellitan, 2019) but must be balanced with the role of the community. To be able to reach the next level, it is also necessary to improve human resources (Fanggaldae & Manafe, 2019; Manafe et al., 2019; Manafe, 2021). One element that plays an important role is the government through strategic policies at the central and regional levels. The government must be able to develop an innovation ecosystem, develop a blueprint for innovation centers, optimize regulations and policies as well as fiscal incentives for collaboration between elements (Ellitan, 2020).

Improvement of human resources in the era of Industrial revolution 4.0 and Society 5.0 for developing countries requires a fairly high level of government intervention, because it is influenced by the low quality of human resources which is evident in the high poverty rate in a country or region

(Kementrian PPN/Bappenas, 2018; Christia & Ispriyarso, 2019; Manafe, 2021). Poverty gets a large portion of attention in this context, because conceptually Industrial revolution 4.0 and Society 5.0 are in line with the SDG's goals, namely "End Poverty in all its form everywhere" as the 2030 agenda (Aprilisa, 2020; Osuji & Nwani, 2020).

SDg's agenda has succeeded in forcing all countries including Indonesia to be aligned in their goals. Nationally, the SDG's agenda must be implemented at the regional level (Kementrian PPN/Bappenas, 2018). The central government's attention is focused on areas with high poverty rates. Central support is evident in the increase in transfer funds aimed at enabling these regions to reduce poverty. Governments in regions with high poverty levels can control their spending to prioritize productive spending in order to improve the quality of human resources (Fanggidae & Manafe, 2019; Manafe et al., 2019; Manafe, 2021; Manafe et al., 2021). If the conditions are fulfilled, then Industrial Revolution 4.0 and Society 5.0 can run in balance with other regions that have good quality human resources and support Indonesia to catch up.

RESEARCH METHODS

The design of this research is descriptive quantitative method. According to Sugiyono (2012) *penelitian deskriptif adalah penelitian yang dilakukan untuk mengetahui nilai variabel mandiri, tanpa membuat perbandingan, atau menghubungkan dengan variabel yang lain.* Which mean descriptive research is a study conducted to determine variables, without making comparison or connect with other variables.

RESULTS AND DISCUSSION

Furthermore, we presented the 5 regions with the highest poverty rates in Indonesia for 2012-2019. Based on Figure 1, it can be seen that there are three regions with high poverty rates, namely Papua Province, West Papua Province and Nusa Tenggara Province (NTT) with a percentage of the poor population of more than 20%, which is above the national average of 9.22% as of September 2019. NTT Province gets great attention in terms of poverty reduction, because it has a very low average poverty reduction percentage of -0.21%, far below Papua (4.11%) and West Papua (5.53%) in the last nearly a decade. This condition shows that there are unresolved problems in terms of reducing poverty in the regions. This means that in that time span, the improvement in the quality of human resources is in a very worrying condition. It can be seen that government intervention is not strong enough to improve the quality of people's lives.

Natalia & Ellitan (2019) places several strategic areas that have been entered by the Industrial revolution 4.0, so that human capital improvements are needed in these areas. Among them are education, health and the economy which are directly related to regional infrastructure. Education is one of the main variables. The higher the education of the people, the more able they are to get out of poverty (Manafe, 2021) Therefore, major government intervention is needed in these areas, especially in the education sector. The following provides an overview of the intervention of the regional government of NTT Province through regional spending on education, health and infrastructure.

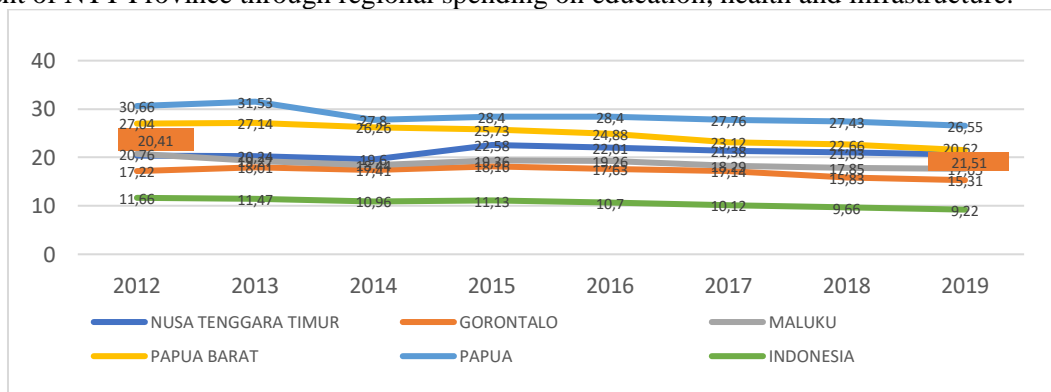


Figure 1
Growth of the Poor Population of 5 Provinces and Indonesia 2012-2019

Based on Figure 2, it can be seen that the pattern of movement of spending on the poverty function, namely spending on education, health and infrastructure, experienced a fairly sharp volatility. This condition indicates that there is a tendency to change development priorities or regional policies. If there is a positive change in the expenditure component of the poverty function, it can be concluded that the local government is quite good at controlling spending policy because it is still in line with the SDG's agenda's, which means that the government's role in Industrial revolution 4.0 and Society 5.0 is through the development of regional innovation, fiscal policy and optimization. Local regulations have been running as expected. Meanwhile, if there is a decline, it can be seen that local governments are more focused on non-productive spending which does not have a direct impact on improving human capital (Manafe, 2021; Manafe et al., 2021). This condition will hinder the collaboration of regional goals, SDG's and Industrial revolution 4.0 and Society 5.0.

Figure 2, also shows the position of education spending which is well above the average spending on health and infrastructure but with a volatility that is in line with other poverty spending. The relatively high regional expenditure on education expenditure should have a good impact on the growth of human capital. This condition shows that there is a tendency to mapping programs and activities that are not in accordance with real conditions or community needs, so that large expenditures do not have a significant impact on objectives (Fanggidae & Manafe, 2019; Manafe et al., 2019; Manafe, 2021; Manafe et al., 2021).

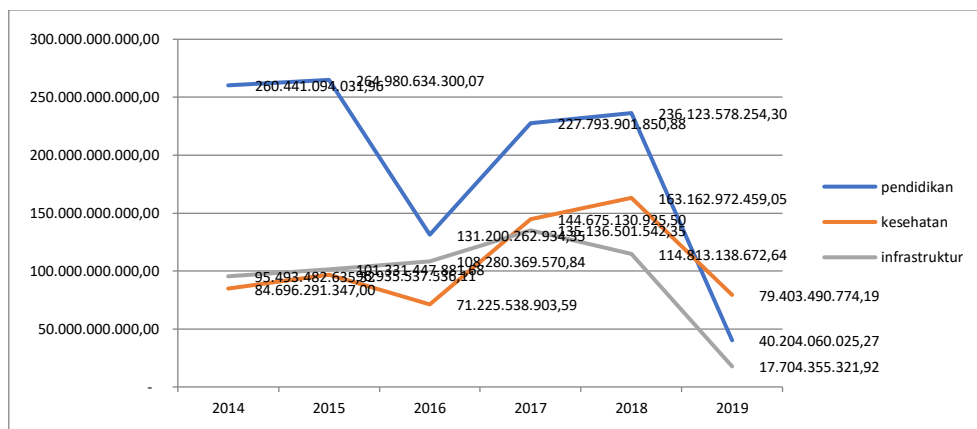


Figure 2
NTT Poverty Function Expenditure Movement Pattern 2014-2019

CONCLUSION

Based on the explanation above, it can be concluded that Industrial revolution 4.0 and Society 5.0 in Indonesia are still difficult to implement in a balanced manner, especially for areas with very low poverty reduction rates such as NTT which are still experiencing serious problems in the readiness of human resources. One of the causes is the weak government intervention in improving the quality of human resources through controlling poverty function spending policies. Regional spending tends to experience a shift which means a change in regional development priorities, thus slowing the implementation of innovation and regional fiscal policy. If this condition continues, in the long term NTT will experience stagnation in economic growth due to a fiscal deficit (Kanu & Uchenna, 2013; Gale et al., 2015; Kiminyei, 2018). Low economic growth will increase unemployment and poverty. Furthermore, NTT will be further behind in Industrial revolution 4.0 and Society 5.0 because it is not supported by the availability of human resources. Local governments are also required to be precise in determining programs and activities that can solve poverty problems, especially in the field of education (Manafe, 2021). The ability to determine *Indikator Kinerja Utama* and *Indikator Kinerja Kunci* (key indicators of development) is needed to control regional spending specifically for education spending ((Fanggidae & Manafe, 2019; Manafe et al., 2019; Manafe, 2021; Manafe et al., 2021)

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