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Research article

Human Resources Investment through the Scholarship Program Implementation for Sustainable Development in the Local Region

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Abstract: Bojonegoro is the region that contributes 30 percent of national oil, so it is hoped that natural resources can be converted into human resources which are sustainable development investments, looking at the future of Bojonegoro Regency from the HDI perspective to achieve the largest target, whether the policy about scholarships taken has full implications for sustainable development, the researcher is using the Double Exponential Smoothing method. Data were obtained from the Regional Development Planning Agency and the Statistics of Bojonegoro report. Based on the calculation results, the best forecasting is obtained based on the measurement accuracy value of 0.7 MAPE 0.385 persen means that its very good criteria, with many scholarship programs from 2019-2021, concludin using qualitative methods plus 2022 Village RPL scholarships with the number of thousands of people, after graduating in 2024 IPM Bojonegoro is predicted to enter the high category, namely the highest score of 72.08 even more, as an outcome of the program it can be practiced because it is intended for stakeholders and structural drivers of villages in Bojonegoro, and this is in line with sustainable development.

Keywords: scholarship, forecasting, HDI, Bojonegoro

JEL Classification: O15, C02, C15, C53

Abstrak: Bojonegoro merupakan daerah yang menyumbang 30 persen minyak nasional, sehingga diharapkan SDA dapat dikonversi menjadi SDM yang menjadi investasi pembangunan berkelanjutan, melihat masa depan Kabupaten Bojonegoro dari prespektif IPM untuk mencapai target maksimal, apakah kebijakan mengenai beasiswa yang diambil sudah berimplikasi penuh untuk pembangunan berkelanjutan, peneliti menggunakan metode Double Exponential Smoothing. Data diperoleh dari Badan Perencanaan Pembangunan Daerah dan Badan Pusat Statistik Kabupaten Bojonegoro. Berdasarkan hasil perhitungan, peramalan terbaik diperoleh berdasarkan nilai akurasi pengukuran 0,7 MAPE 0,385 persen yang termasuk dalam kriteria sangat baik, dengan banyaknya program beasiswa mulai tahun 2019-2021 ditambah beasiswa RPL Desa 2022 dengan jumlah ribuan orang, ditarik kesimpulan dengan metode kualitatif, setelah lulus di tahun 2024, IPM Bojonegoro diprediksi akan masuk kategori tinggi yaitu nilai tertinggi 72.08 bahkan lebih, sebagai outcome, program ini dapat dipraktekan secara langsung karna ditujukan untuk stakeholder dan struktural penggerak desa di Bojonegoro, dan hal ini sejalan dengaan pembangunan berkelanjutan.

Kata Kunci: beasiswa, peramalan, IPM, Bojonegoro

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1. INTRODUCTION

In Indonesia, there are many regions that have comparative advantages, such as regions with mountains, beaches, and mineral resources contained in the earth. It is different from Bojonegoro Regency. Currently, Bojonegoro is a contributor of 30 percent of national oil. However, recently these natural resources are about to run out. Long-term investments are needed to predict the sustainability of regional development when these natural resources are exhausted. To overcome this, the Bojonegoro government strategy is to organize scholarships for youth and stakeholders at lower levels, in this case, village societies are part of the community. This is considered important in sustainable development to achieve the national goals, which is the development in human resources (HR). In addition, income from oil and gas has also included in the endowment policy. Due to too much distribution of funds from oil and gas, this endowment becomes a regional budget reserve for future development.

Human development is a concept that encourages the improvement of the quality of human life physically and spiritually which based on the development of Human Resources. This increases the basic capacity of the community to participate in the process of sustainable regional development. The high quality of human development shows the community's ability to participate, to manage, and to use sources of economic growth, both in technology and institutions in achieving human growth (Dewi & Sutrisna, 2012). Additionally, the education is one of the most highlighted factors because it has a direct impact on other factors, such as health and economic level (Teguh & Bashir, 2019). Therefore, local governments optimize government spending in the education sector. This is a form of the seriousness of the central and local governments in improving human resources with these scholarships because local governments believe that education is a catalyst for development.

United Nations Development Program (UNDP) provided a benchmark for assessing the success of human development by using the Human Development Index (HDI). The Human Development Index (HDI) was first introduced in 1990 by Amartya Sen, a Nobel laureate from India, and Mahbub Ul Haq, a Pakistani economist, and was assisted by Gustav Ranis from Yale University and Lord Meghnad Desai from the London School of Economics. Since then, the term HDI has been used by the United Nations Development Program in its annual Human Development Report (HDR) (Ouedraogo, 2013). The human development index has at least three components, namely health, education, and purchasing power. Specifically for education, indicators of welfare improvement can be seen from the literacy rate.

Based on the publication of Indonesia Statistics Report (BPS), the value of Indonesia's HDI in 2010 was 66.53 and in 2021 Indonesia's HDI was 72.29. There is an increase of 0.35 points (0.49 percent) compared to the previous year's achievement of 71.94. Indonesia's HDI continues to increase every year, but this achievement is still below the target planned by the President, that is 71.98. Although the government does not set an exact number on the HDI target, all Bojonegoro Regency Scholarship Programs are adjusted to the Bojonegoro Regency Vision for 2018-2023. The vision states that making Bojonegoro a source of people's economy, and local socio-culture for the realization of a faithful, prosperous, and competitive society, with missions is sustainable human resources (Regional Development Planning Agency, 2018). The Government of Bojonegoro Regency has a special Scholarship Program for Bojonegoro residents, which is divided into 3 groups, namely: (1) scientist scholarship; intended for those who study at State Universities (PTN) and Private Universities (PTS) with scientist majors and study programs, such as faculty of engineering, faculty of agriculture, faculty of animal husbandry and fisheries, faculty of medicine; (2) one village two undergraduate scholarship; intended for those who study at PTN and PTS for all majors; (3) Final Aid Scholarship; intended for those who are completing the final task (thesis); and (4) recognition of prior learning or village past learning recognition (RPL Desa) is a form of academic recognition intended for village movers, village heads, all village officials, BUMDes management, village consultative agency (BPD), and village assistants to convert their experience into credits that do not need to be taken, so they can complete academics in a short time (Region Development Planning Agency, 2019).

To predict the success of HR development which is currently being pursued by the people of Bojonegoro, researchers try to look at forecasting the HDI value of Bojonegoro Regency until 2024, researchers use the exponential smoothing method which is one of the methods in forecasting time series data, that is done through smoothing the value of data in the future. then by reducing it exponentially and determining the value of the smoothing alpha parameter for each data (Hyndman et al., 2002). In using the exponential smoothing method, the data pattern used must contain trend data patterns, namely data patterns that have an increase or decrease in the expansion of a period (LaViola Jr, 2003).

As a basis for comparison, the researcher reviewed previous studies; (1) the data was taken for the period March 12, 2016, to December 31, 2020. The results of this study are obtained for the Autoregressive Integrated Moving Average (ARIMA) (1,1,1) -GARCH (2,1) hybrid model with a root mean square error (RMSE) forecasting accuracy value is 2.375454, the mean absolute error (MAE) is 1.702908 (Setyowibowo et al., 2021); and (2) In other research on forecasting, the human development index (HDI) in the Bojonegoro district is using the exponential smoothing brown method, the best forecasting was obtained based on the parameter value 0.7 with a MAPE value of 0.376% which included very good criteria. The HDI forecasting result for 2021 is 69.61, for 2022 it is 70.14, and for 2023 it is 70.67 including the medium HDI category (Farida & Sulistiani, 2021).

That to determine the policy on scholarships requires in-depth data and studies, because education is included in the mandatory spending UUD 1945 Constitution to reduce regional social and economic inequality, therefore this research can be input to regional governments.

2. RESEARCH METHODS

This study us a quantitative and qualitative approach, including Bojonegoro Regency HDI data for the period 2010-2021, the data was taken from the publications of the Regional Development Planning Board (Bappeda) and Indonesia Statistics Reports (BPS) of Bojonegoro regency as quantitative calculations. In this study, the authors were used the Double Exponential Smoothing method in calculating the HDI value forecasting. Forecasting is an attempt to estimate the condition in the future through testing the past conditions that are naturally based on data or information patterns and using relevant policies in the past (Rana & Koprinska, 2016). Forecasting is used to get predictions or forecasts and it can minimize error or error rate. In forecasting, we use time-series data as the basis for drawing trends to see the development of the data. The results of forecasting are used as a basis for planning or drawing conclusions (Liantoni & Agusti, 2020). The smoothing method is one of the techniques in forecasting that takes the average value of the future period, based on historical or past data.

The double exponential smoothing method is a linear model introduced by Brown, which is more appropriate to use in forecasting data that is experiencing an upward trend. The advantage of this method is that it can model trends with relatively little and limited data. However, the drawback of this method requires the best parameter values, so it takes a relatively long time to find the optimal value (Hansun, 2016). In the double exponential smoothing method, the smoothing process is carried out twice, because the rationale for the double exponential smoothing method is the same as a linear moving average. This happens because the single and double smoothing values lag the actual data (Syafwan et al., 2021). The stages in this research to forecast is using the double exponential smoothing method. Determine the Single Exponential Smoothing value, determine the Double Exponential Smoothing value, determine the constant value, determine the slope, determine the forecast value:

$$S'_t = \alpha . X_t + (1-\alpha) S'_{t-1} \quad (1)$$

$$S''_t = \alpha . X_t + (1-\alpha) S''_{t-1} \quad (2)$$

$$a_t = 2S'_t - S''_t \quad (3)$$

$$b_t = \frac{\alpha}{1-\alpha}(S'_t - S''_t) \quad (4)$$

$$F_{t+m} = a_t + b_{tm} \quad (5)$$

$$MAPE \frac{\sum_{t=1}^{n} \left| \left(\frac{A_t - F_t}{A_t} \right) 100 \right|}{n} \quad (6)$$

Table 1. Mean absolute percentage error (MAPE) and value criteria

MAPE value	Criteria
< 10%	Very good
10% - 20%	Well
20% - 50%	Pretty good
> 50%	Bad

Every prediction or forecasting situation contains a degree of uncertainty, where thesituation indicates the level of accuracy (error) of a forecast. The level of accuracy (error) isused as a rejection criterion in determining and selecting the forecasting method (Airlangga et al., 2019). The most frequently used method in determining the level of accuracy is the Mean Absolute Percentage Error (MAPE). MAPE calculations are carried out in every i-period or each observation (Wang et al., 2012). The results of the MAPE value can be used to find the best value by trial and error. The best is determined based on the smallest MAPE value. In determining the parameter only a limited range of values is taken, although according to theory the value of the parameter is considered to be between 0 and 1 (Fauziah & Gunaryati, 2017). The MAPE score criteria are shown as follows (Billah et al., 2006):

The previous research approach only used quantitative methods to get numbers as forecast HDI in the future, but researchers also used qualitative analysis methods, this was done by the author starting before the research was carried out, during the research, and after the research was finished. In other words, the process of data analysis and interpretation is not carried out at the end of data collection but simultaneously begins when the data collection process takes place in the field. At the time of the interview, the researcher analyzed the answers of the interviewees. If the interviewee's answers after being analyzed feel unsatisfactory, then the researcher will continue the question again, until, at a certain stage, data that is considered credible is obtained. According to Miles & Huberman (1992); and Sugiyono (2014), the activity in qualitative data analysis is carried out interactively and continued until it is complete and the data is saturated.

Proposes four factors or variables that influence the success or failure of the policy implementation of the four variables, including: communications, resources, dispositions, and bureaucratic structure. The four variables have a simultaneous effect (Edward III in Tachjan. 2006). To obtain information, both primary and secondary data, the researcher starts by sorting out the initial sources of information that are considered to represent the research problem. The next step is to determine the follow-up informants obtained from the initial informants. The search for informants stops when new information is no longer found or there has been a repetition of information from what has been previously obtained.

- Statement ministry of villages, development of disadvantaged regions, and transmigration
- Bojonegoro regent's statement
- Statement of the head of the education office
- Statement of the head of the bojonegoro regency PMD service
- Statement of the chancellor of Yogyakarta State University
- Statement of the chancellor of the State University of Surabaya
- Scholarship beneficiary statement

It should also be noted that the search for information or the addition of informants was stopped when the data obtained were saturated from various informants, both old and new,no more providing new data. If the selection of informants falls on the subject who controls thesocial

situation under study (object), then it is an advantage for the researcher, because it does not require many more informants. So what is a concern for qualitative researchers is completing and regarding the acquisition of information with a variety of existing variations, not the number of informants as data sources (Sugiyono, 2014).

3. RESULTS AND DISCUSSION

3.1. Quantitative research results and analysis

The application of human resource development in development will of course have a significant impact on the achievement of various regional development targets. The focus of human resource development will place every individual in an area as the holder of various authorities for the future of his life through improving quality and competitiveness at the labour market level. Therefore, the scholarship program is part of an investment to meet the future. The approach taken is by the assumption that the Bojonegoro HDI forecasting using the double exponential smoothing method has shown an upward trend. Conclusions can be drawn following primary and secondary data observations, it was used HDI data in Bojonegoro regency from 2010 to 2021 using the double exponential smoothing method. Based on Figure 1, shows that the HDI value of Bojonegoro Regency has an upward trend pattern (BPS Bojonegoro Regency, 2021).

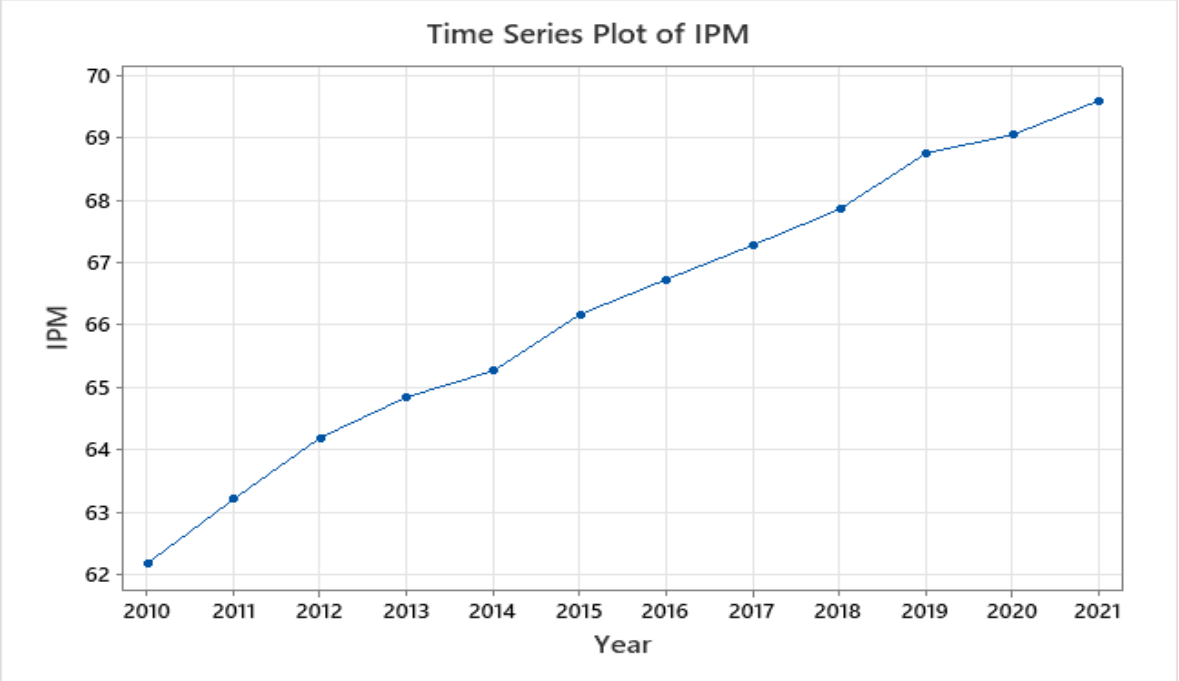

Figure 1. Human Development Index in Bojonegoro from 2010 – 2021
Source: Author's calculation

Table 2. Descriptive statistics

Descriptive	HDI
Mean	66,262
S.E. Mean	0.684
Std. Dev.	2,371
Minimum	62.190
Q1	64,363
Median	66,450
Q3	68,525
Maximum	69.590
N	12

Source: Author's calculation

Statistical calculations: Bojonegoro's HDI shows a trend for 12 years with an average value of 66,262 and continues to rise to reach 69,590 in 2021 which is formed from three basic dimensions, namely life expectancy (AHH), average length of schools (RLS), expected years of schooling (HLS), and adjusted income per capita. It is known that the HDI data pattern of Bojonegoro Regency is trend data, then calculations are carried out using the Double Exponential Smoothing method based on equation (1) to equation (5). Table 3 reports that the results of the HDI forecasting calculation in Bojonegoro Regency using the double exponential smoothing method.

Table 3. Bojonegoro HDI forecasting results

Year	HDI Value	S'_t	S''_t	a_t	b_t	f_{t+m}
2010	62.19	61.76	62.32	62.40	0.92	62.40
2011	63.22	62.46	63.23	63.25	0.76	63.25
2012	64.20	63.69	64.07	64.00	0.84	64.00
2013	64.85	64.51	64.89	64.92	0.82	64.92
2014	65.27	65.06	65.55	65.71	0.67	65.71
2015	66,17	65,40	66.21	66.23	0.65	66.23
2016	66.73	66.65	66.81	66.86	0.61	66.86
2017	67.28	66.77	67.37	67.42	0.56	67.42
2018	67.85	67.59	67,90	67.93	0.53	67.93
2019	68.75	68,10	68.55	68.43	0.63	68.43
2020	69.04	68.41	69.13	69.18	0.58	69.18
2021	69.59	68.92	69.67	69.72	0.54	69.72
2022	-	-	-	-	-	70.21
2023	-	-	-	-	-	70.76
2024	**-**	**-**	**-**	**-**	**-**	**71.30**

Source: Data from BPS and One Data Bojonegoro (author's calculation)

Table 4. Bojonegoro HDI forecasting results using double exponential smoothing

Forecast			
Years	Forecast	Lower	Upper
2022	70.218	69.814	70.623
2023	70.763	70.180	71.347
2024	**71.308**	**70.535**	**72.081**

Source: Primary Data (author's calculation)

Figure 3 reports that determined the best forecasting with parameters 0.3 with the smallest MAPE value = 0.7 of 0.385 where the MAPE is categorized as very good. Then forecasting HDI in Bojonegoro Regency for 3 years with use equation (5) based on the parameter value = 0.7 showed in numbers 13, 14, 15 (2022, 2023, 2024) Based on Figure 2, its hows the comparison of the results of the HDI forecasting in Bojonegoro Regency with the previous data. The HDI forecasting of Bojonegoro Regency with the highest value for 2022 is 70.62, for 2023 it is 71.34, and for 2024 it is 72.08.

This implies that the HDI of Bojonegoro Regency for the next 3 years, namely 2021, 2022, and 2023, shows a trend of increasing trend patterns, so that the HDI results increase every year. This is following the third mission of the Bojonegoro district "Realizing the continuous improvement of the quality of human resources". The development of HDI achievements in Bojonegoro Regency in recent times can be predicted to increase from calculations because from 2019 to 2022, there are many scholarship programs in Bojonegoro, it is predicted that with the many policies regarding scholarships, the HDI ranking in Bojonegoro Regency will show significant growth crawling up and is predicted to beat level province and national and has been included in the high category.

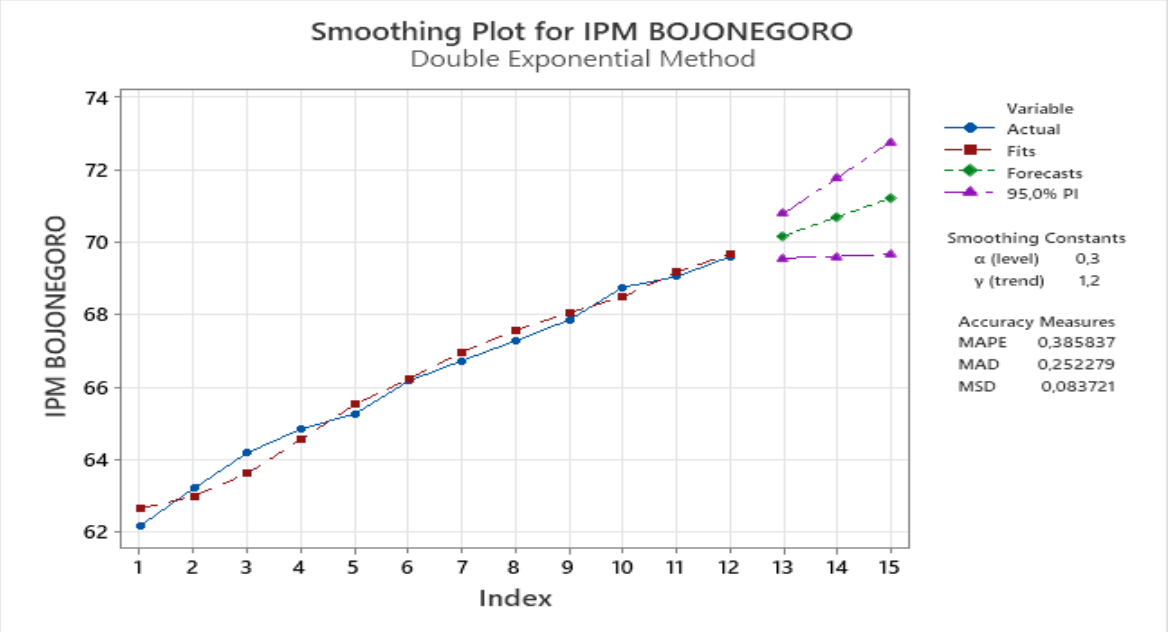

Figure 2. Forecasting calculation results use double Exponential Smoothing
Source: Author's calculation

Policy support and its implementation in the current year 2019-2022 are the addition of indicators that determine Bojonegoro's HDI in 2024, some of the data that researchers have collected from new indicators of HDI measurement, namely AHH, HLS, RLS, standard decent living and added by researchers to include policy indicators that accommodate progress resource humans, especially education indicators from 2019 – 2022.

Table 5. Supporters of increasing Bojonegoro's HDI

HDI support	2018	2019	2020	2021
Life expectancy	71.07	71.36	71.56	71.72
(HLS/EYS)	12.34	12.41	12.39	12.68
(RLS/MYS)	6.71	6.87	7.33	7.38
Decent standard of living per capita	9.9 Million	10.2 Million	10.1 Million	10.2 Million

Source: Author's calculation

3.1.1. Life Expectancy at Birth (UHH) in Bojonegoro

Life expectancy is influenced by environmental conditions, food availability, education, government policies, the community's economy, and so on. The increase in life expectancy is due to a better life, prevention and maternal care, increased education, and per capita income. Some of Bojonegoro's achievements that correlate with UHH; through the Bojonegoro Health Office received a 100 percent predict universal health coverage (UHC) in 2020, which means that the whole community is covered by health insurance, then gets the predicateOpen Defecation Free(ODF) in 2021, namely the community-based total sanitation (STBM) program. which aims to realize the stop open defecation (Bojonegoro Health Department, 2020).

3.1.2. Expected years of schooling (HLS/EYS) and average length of schools (RLS/MYS)

HLS is one indicator that can be used as a measure of equitable social welfare. The HLS defines the length of schooling (in years) that a child at a certain age is expected to experience in the future. It is assumed that the probability that the child will remain in school at the following ages is the same as the probability of the population attending school per population for the current same age, the 12-year compulsory education policy has been a policy from the past, but it is necessary to pay attention to the school enrollment rate (APS), because problems such as junior

high school students who want to enter high school are not accepted, there are children with disabilities in regular schools who are not included in the ANBK in 2019, etc.

The average length of schooling indicates the higher the level of education achieved by the community in an area. The higher the average length of the school, the higher the level of education undertaken. The general assumption is that the higher a person's level of education, the higher the quality of a person, both in terms of thinking and acting. The average length of schooling is defined as the number of years spent in formal education by the population. There is no doubt that the Bojonegoro district's commitment to improving human resources continues, thousands of scholarships have been targeted and the budget continues to be added, if you look at the size of the Bojonegoro APBD, the Scholarship program or others related to increasing knowledge can continue to be improved.

3.1.3. Decent Standard of Living as measured by adjusted per capita expenditure

The dimension of decent living standards is reflected by the adjusted annual per capita real expenditure indicators. This indicator describes the purchasing power of the people during a certain period. From 2013 to 2019, this indicator continued to increase, but in 2020 it decreased by 1.4 percent due to the impact of the COVID-19 pandemic. This indicator will rise again in 2021 in line with the easing of restrictions on economic activities by observing the applicable health protocols. The average expenditure per resident in Bojonegoro Regency is IDR 951 thousand per month, of which IDR.488 thousand is used for food while the remaining IDR.463 thousand is used for non-food (BPS Bojonegoro from the 2021 Susenas results).

3.1.4. Policies that accommodate education

Table 5 reports that the policy that accommodates education in Bojonegoro Regency 2019-2021 which the researchers compiled as a hypothesis in providing a more significant increase in 2024, with some 2 in 2019, 5 in 2020, 3 in 2021, which means full support from the legislature will be streamlining the executive run the program and make the right decisions, researchers present to narrow the assessment of policies, among others:

Table 5. Policies that accommodate Education in Bojonegoro

No	Policy	Type	Percent
1	Bojonegoro Regency Regional Regulation No 2 of 2019 concerning RPJMD	Local Regulation	15%
2	Bojonegoro Regent Regulation No. 34 of 2019 concerning higher education achievement scholarships	Regent Regulation	15%
3	Bojonegoro Regency regulation No. 8 of 2020 concerning the implementation of education	Local Regulations	15%
4	Bojonegoro Regent Regulation No. 15 of 2020 concerning amendments to Bojonegoro Regent's regulation Number 34 of 2019 concerning higher education achievement scholarships	Regent Regulation	5%
5	Bojonegoro Regent Regulation No. 33 of 2020 concerning the second amendment to Bojonegoro Regent's regulation No. 34 of 2019 concerning higher education achievement scholarships	Regent Regulation	5%
6	Bojonegoro Regent Regulation No. 44 of 2020 concerning implementation of anti-corruption character education in the Bojonegoro regency basic education unit	Regent Regulation	10%
7	Bojonegoro Regent Regulation No. 67 of 2020 concerning position, organizational structure, description of duties, and functions of the Bojonegoro regency education office	Regent Regulation	5%
8	Bojonegoro Regent Regulation No. 69 of 2021 concerning position, organizational structure, job description, and work procedure of the Bojonegoro regency education office	Regent Regulation	5%
9	Decree of the Regent of Bojonegoro No. 188/28/KEP/412,013/2021 concerning the Board of Education of Bojonegoro Regency for 2021-2025	Regent Regulation	10%

No	Policy	Type	Percent
10	Presidential Decree No. 85 of 2020 and Minister of Education, Culture, Research and Technology No. 41 of 2021; the basis behind the village RPL in the implementation of this scholarship	MoU	15%
	Total		100%

Source: Data form JDIH Bojonegoro (Author's Calculation)

3.2. Qualitative research results and analysis

In this section, the researcher presents the results that have been selected through qualitative methods, so that the data are presented in narrative form as a result of in-depth interviews and observations with selected informants in Bojonegoro Regency. The results and analysis of this research have gone through a process of sorting, simplifying, and abstracting based on rough data that emerged from notes in the field. And discard unnecessary data to allow a conclusion from the results of the study, to measure how big the impact of policies on education in Bojonegoro Regency is.

3.2.1. Communication

Communication in organizations is a very complex and complicated process. One can hold it only for certain purposes, or disseminate it. In addition, different sources of information will have different interpretations. To make the implementation to be effective, those responsible for implementing a decision must know whether they can do it. The success of the Policy requires the implementers is know what to do. What are the goals and objectives of the policy (target group) so that it will reduce implementation distortions? If the goals and objectives of a policy are not clear or even unknown to the target group, resistance from the target group will likely occur. As stated by the Ministry of Villages, Development of Disadvantaged Regions, and Transmigration, Abdul Halim Iskandar;

> *"Through the RPL initiated by UNESA and UNY for village activists in Bojonegoro Regency, it is a very extraordinary moment, which has been eagerly awaited by all ranks of village activists throughout Indonesia. We are doing it today to accelerate the improvement of human resources,"*

HR in the village is one of the tasks of the Minister of village and PDTT. With the aim that village government, village economic development actors, village community empowerment continue to increase, with this RPL the human resources in the village are getting better and of course, RPL is an investment built by Bojonegoro Regency. It should be noted that the RPL program is acollaboration between the Kemendesa PDTT and the Higher Education Forum for the Village (Pertides). This program facilitates village heads, village apparatuses, BPD Members, BUMDes Managers, village facilitators, and village community empowerment Activists to take further education at the D4/S1, S2, and S3 levels through the recognition of past knowledge (RPL) scheme. Thus, non-formal and informal education, and/or work experience that has been passed, can be recognized as learning achievements to take undergraduate or postgraduate education through the exemption of certain course credits. The Village RPL program is carried out following the Memorandum of Understanding (MoU) between the Ministry of Villages PDTT, the Ministry of Home Affairs, and the Ministry of Education and Culture, Research and Technology, as well as the collaboration between the Ministry of Villages PDTT and the Higher Education Forum for Villages (PERTIDES). (Responding to Global Challenges, the PDTT Village Minister, 2022). Further communication can be seen from policymakers in this case the Regent of Bojonegoro DR. Anna Mu'awanah, a researcher interviewed specifically about the commitment to investment in human resources in Bojonegoro, the Regent said;

> *"In addition to infrastructure that can be felt by the community, In 2021, the Bojonegoro Regency Government through the Education Office will allocate a budget for educational scholarship funding of IDR 39.5 billion. In 2022, the Bojonegoro Regency Government has*

budgeted a scholarship of IDR 33.4 billion from the APBD which includes: The scientist Scholarship, the budget allocation is IDR 11.62 billion for 81 students; The One Village Two Bachelor Scholarship has a budget allocation of Rp. 18.03 billion for 1,803 students, and the Final Assistance Scholarship which is allocated a budget of Rp. 3.75 billion for 1,500 students and the latest in 2022 is the Village RPL scholarship of Rp. 11.7 billion for 1,076 students, so in the last 2 years Bojonegoro has allocated Rp. 85 billion.

If you look at the statements of informants regarding policy communication, transparency, and financial support that are continuously provided, then based on the theory of Donald Van Metter and Carl Van Horn models according to one of the variables, namely implementation activities, and inter-organizational communication. So that the Donald Van Matter and Carl Van Horn model and the Edward III model can be elaborated, which means that implementation requires effective communication between policymakers or policymakers and transparently implementing policies. If this is carried out following the rules and regulations, it will run smoothly and there will be no significant obstacles in its implementation.

3.2.2. Resource

One of the things that can be achieved is if the policy is communicated clearly and consistently, but if the implementor lacks the resources to implement it, the implementation will not be effective. These resources can be in the form of human resources, namely the competence of the implementor, and financial resources. Resources are an important factor for effective policy implementation. Without resources, policies are just documents. For implementors in improving Human Resources in Bojonegoro through the Village RPL Scholarship, the Bojonegoro Regency Government, UNY, and UNESA, the statement taken as their commitment. FromUNY Chancellor Mr. Sumaryanto, says;

"Thank God we were able to collaborate and work on an excellent, extraordinary program, and it became a pilot project for other villages. God willing, this is a spectacular program, Your Honor, so UNY together with UNESA God willing, are ready to carry out this good task"

Meanwhile, Prof. Dr. Nurhasan, M.Kes. The Chancellor of Unesa said:

"The lectures are special, the assistants are special and the lecturers are special. It is hoped that it can provide a suitable, effective, and optimal learning or lecture atmosphere for participants. After studying, implement knowledge in their respective villages. Color the village with creativity and innovation towards advanced and superior villages"

From the words of the two Chancellors as implementers of education in the campus environment, it can be seen that resource matters must receive attention and priority. from Bojonegoro, while from the statement of the Chancellor of UNY it can be concluded the program to improve the quality of human resources, especially for leaders at the village level,is a program that *is excellent* and committed to running the program. What's more important than financial resources for the operational implementation of the scholarship must be the main concern, in the search for researchers Bojonegoro Regency has a high commitment to the budgeting of this program.

Based on the observations of researchers from the PMD Office of Bojonegoro Regency, Bojonegoro Regent Anna Mu'awanah's breakthrough in the field of improving human resource development was handled directly by the Community and Village Empowerment Service (DPMD), including the registration facilitation process. The registration process also involvesthe ranks of Kabid, functional officials (Korwilkab) to DPMD Kab staff. Bojonegoro, Sub-district POSKO together with village assistants throughout Bojonegoro, the statement from the Head of the Bojonegoro DPMD, Machmuddin, says;

"For registration services from our 419 villages, we have to work overtime to recap data and other information needs. Even our google meeting can be held three times a day, this is extraordinary. When other scholarship programs go hand in hand with RPL Desa. if other

scholarships are added to the Village RPL, there will be many undergraduate graduates in the village. So one village many scholars".

Judging from the communication of policymakers and resources have been synchronized and can then be followed up following the requirements or SOPs made by the resource up to the mentoring process to pass the scholarship selection and assessment, Table 6 reports that the RPL Village scholarship projections, the data obtained by researchers shows that there are 5,739 village movers in Bojonegoro Regency whom Priority is given to high school graduates, consisting of:

Table 6. Number of village movers who are prioritized to receive village RPL scholarships

No	Village Movers	Number of high school graduates
1	Village head	254
2	Village secretary	123
3	Head of welfare	260
4	Head of government	262
5	Head of service	262
6	General Kaur	247
7	Planning officer	147
8	Finance officer	239
9	Village chief	855
10	BPD	1.393
11	BUMDes manager	1.337
	Total	**5.739**

Source: Author's calculation

Implementation of the village RPL scholarship acceptance in 2022 with the realization of the number of students 1,076 with a total budget for this special scholarship of Rp. 11.7 billion, this indicates that the required resources must be qualified to accelerate communication to the community as beneficiaries because policymakers can already form a strong basis for program implementation.

3.2.3. Disposition

Disposition is the character and characteristics possessed by the implementor, such as commitment, honesty, and democratic nature. One of the factors that influence the determinants of policy implementation is the attitude of the implementor. If the implementor agrees with all the objectives of the policy then they will implement it optimally, but if their views are different from the policymakers then the implementation process will experience many problems. From the beneficiary's point of view, this position greatly affects the process of getting access to information, services, and program assistance provided, as conveyed by several scholarship recipients who passed the 3 Bojonegoro Scholarship programs who submitted their comments:

- Recipient of a scientist scholarship at the Faculty of Medicine, University of Eleven March, Surakarta, Safira Hasna Rosyida:

  "With the scientist scholarship by the Bojonegoro district government, it can ease the economic burden on my family, then as a challenge for myself to continue to study always maintain GPA values to keep getting the scientist scholarship"

- Recipients of students 1 village 2 Bachelor of the Faculty of Sharia and Islamic Criminal Law Nurul hidayah

  "Starting from my high desire for college, I looked for scholarship information on the social media of the Bojonegoro education office, then I registered and completed the requirements, Alhamdulillah I passed this 1 village 2 undergraduate scholarship, thank you to Mrs. Anna Muawanah who has provided the scholarship program This can ease the economic burden on my family."

- Recipient of a scientist scholarship from the Faculty of Engineering, ITS Surabaya, honesta siswo laksono;

  "I applied for a scholarship in Bojonegoro because I learned from my teacher when I was in highschool and I believe that in the development process an area requires human resources who have a mature mindset and are supported by having high education. With this scholarship program, I and other young people in Bojonegoro have the opportunity to complete their studies at a higher level of education, to be able to prepare for the development of Bojonegoro in the future."

- One Village Two Bachelor scholarship recipient, Suwanti;

  "Easy to access information on the 1 village 2 undergraduate scholarship program in Bojonegoro can be found on the website of the Bojonegoro district government and the Bojonegoro education office, making it easier for us to fulfill the requirements and proceduresto get the 1 village 2 undergraduate scholarship program.

- Village RPL scholarship recipient, Mojo Village Head Anik Umiyatun

  "The road is already Nglenyer, now in the field of education too"Sigh. I say thank you very much to Mrs. Anna, I can join the Village RPL program to increase my knowledge and insight, I am currently taking a study programAdministrationState, and still do not expect to be an official in our village given a special gift ".

The expression of the many student testimonials that researchers have collected indicates that: that the community knows that if the government is committed to implementing the scholarship program. And based on the observations of researchers during the study, it was found that the dispositions that had been made were following the SOP, if there was a complication in providing services, the Bojonegoro Regent immediately revised the policy through the Regent's Regulation that had already occurred, as shown in Table 5.

3.2.4. Bureaucratic Structure

The bureaucratic structure as the spearhead of policy has a significant influence on policy implementation. One of the most important structural aspects of any organization is the existence of standard operating procedures or SOPs. SOP is a guideline for every implementer in acting. An organizational structure that is too long will tend to weaken supervision and lead to red tape, which is a complicated and complex bureaucratic procedure. This in turn causes the organization's activities to be inflexible. This section talks more about service technicalities but cannot be separated from the rules and mechanisms that must be owned, for example, the mechanism for the service process, complaints, and collaboration with other parties outsidethe government environment. Head of the Village Community Resilience Division of the Bojonegoro PMD Service, Mrs. Evie Octavia Marini;

"Registration for RPL Desa scholarships in Bojonegoro is done online from February 21-23 2022 which is extended until March 2, 2022. The way is by uploading portfolio documents from February 24 to March 2, 2022, the district government has formed a village coordinator assistant and sub-district post, Meanwhile, the RPL Village selection assessment is carried out entirely by the State University Recognition Assessor Team. Namely, for the required documents and recognition supporting portfolios uploaded by each participant to pass the selection, the participants must follow the portfolio upload stage. The attachment of the uploaded portfolio document is also considered very supportive of the RPL Desa participants. Such as proof of letters related to academics, work experience, achievements or awards, training certificates, both in village government, village development or community empowerment, or others.

This expression illustrates that the bureaucracy is ready to run the program, even assisting with the sub-district post. The researcher concludes that campus involvement makes the technical registration process mature and well-systematic, with cross-institutional collaboration making

program implementation easier and clearer. As for a policy, it will not always be smooth because the scholarship program requires special recipients, and there is also a limit on the number, which means that the beneficiaries will also compete to get this scholarship program.

4. CONCLUSIONS

Based on quantitative analysis; analysis, calculations, and discussions that have been carried out, it is concluded that the HDI forecasting calculation in Bojonegoro Regency using the Double Exponential Smoothing method produces the best parameter value of 0.7 with a MAPE value of 0.385% which falls into the very good criteria, and the results obtained IPM forecasting for Bojonegoro Regency in the next 3 years with the highest value for 2022 is 70.62, for 2023 it is 71.34, and for 2024 it is 72.08. It has been included in the High category. This value is included in the category of High HDI, in terms of the HDI value based on UNDP.

Meanwhile, with a qualitative approach after reducing data from statements and interviews with respondents, Bojonegoro's HDI is considered to experience a trend beyond forecasting, this can be predicted to increase from the forecasting above because in 2019- 2022, the HDI determinant indicator, namely the UHH index, will be affected when viewed from Bojonegoro's achievement gets a 100% to predict universal Health Coverage(UHC) in 2020, which means that the entire community is covered by health insurance, plus Bojonegoro also received the predicateOpen Defecation Free(ODF) in 2021, while the Knowledge Index (HLS, RLS) in 2024 will contribute to the index number because many graduated from scholarships that year. And the commitment and consistency of the Bojonegoro district to education policy have also been maximized in innovation, and maximal implementation, although there are a few obstacles that can be overcome.

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