Impact of Political Institution Role to Anti-Corruption Perception Index: An Experience from Indonesia

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Abstract
Indonesian democracy from every period of government will continue to experience development towards maturity. In the life of the state, corruption cannot be separated. The role of political institutions and democratic maturity is very large in eradicating corruption, collusion and nepotism. This study uses secondary data, with used the Indonesian Democracy Index (IDI) and the Anti-Corruption Perspectives Index (Indeks Persepsi Anti-Korupsi/IPEK) which is sourced from the Indonesian Central Statistics Agency. Data processing using multiple linear regression statistical analysis. The Indonesian Democracy Index consists of variables of the role of the DPRD, the role of political parties, the role of the local government bureaucracy and the role of an independent judiciary. It was found that the role of DPRD has a significant positive effect on IPAK, the role of political parties has a significant negative effect on IPAK, the role of local government bureaucracy is significant positive and the role of an independent court is not significantly negative for IPAK. It is hoped that to improve the social community that is aware on anti-corruption, it is necessary to increase the role of the DPRD and the role of the local government bureaucracy in accordance with their duties and functions in the government together to eradicate corruption and form a new culture oriented towards the prevention and eradication of corruption.

Keywords: Democracy, Politic, Anti-Corruption, Social Community

1. Introduction
Political actors are the driving elements of political institutions in any country, especially as political communicators (Ahmad, 2012). If we assume a democratic country, the actors on it consist of the representative council, regional heads, political parties and judiciary. These elements have a socio-political impact on society for every action taken on social and political motives by political actors (especially in the concept of populism between the relationship of political actors and society) (Putra, 2018). Practically political actors can have an impact on every political decision taken, especially in realizing political goals through communication with other political actors, non-political actors and other non-political communities (social communities) (Hasfi, 2019). The social community becomes one of the additional actors where democracy and the republican government system will give opportunity to limited social power relations so that the development will form its own of public space (Ahmad, 2012).

Political communication is a very strategic study and cannot be separated from the study of political culture and political socialization (Muchtar, 2016). Political communication, which is general examines the communication relationship between political interests and political elements in behavior. In practice, political communication plays a role in political agreements in various political agendas that occur in the public sphere (Anugrah, 2011). Political communication is closely related to the mechanism of democracy in Indonesia. This is because the characteristics of democracy which have the concept of society in transforming communication patterns between structures and political elites have made political communication increasingly have an important position in political practice in Indonesia. (Simarmata, 2014). Democracy and political communication are the real dynamics of paving
the way for interdependence and interrelation in achieving political goals (Susanto, 2013; Rachmiatie, Yah, Khotimah, & Ahmadi, 2013).

Political communication forms a public space that refers to the zone between the political sphere managed by state institutions and the private sphere owned by each individual and certain social community (Ahmad, 2012). As a result of the emergence of this public space, political actors and society will specifically explore the political socialization process which includes aspects of political learning, political institutions and how a person can behave in certain politics (Tabroni, 2012). For example, such as in general elections where there are sympathizers and they are social communities in certain countries which in the short term will divide their two communities into sections according to the basis of the election winning team. The social community created by this political communication is a social community that has its own political vulnerability. As political role takers, the social community should not show a primordial distinguishing identity to anticipate conflict due to the vulnerability of the social community in conflict friction (Lampe, 2010). Social communities such as ordinary people and community organizations have had many dynamic impacts in politics from time to time in Indonesia. The characteristics of the social community are influenced by how the government system and ideology of a country are working normally. There are so many agendas that each interest in the social community will fight for, be it workers, environmental activists, students, soldiers, labor union and so on.

Zulkarnaen (2017) analyzing the impact of socio-political and economic determinants of income income inequality in Indonesia and used the economic, social and political factor to found the relationship on income inequality. In particularly that political indicator with used the Indonesian Democracy Index is essentially used for economic analysis and political analysis in quantitative approach, especially to found the relation impact with used ordinary least square model. The importance of this analysis is that the availability of comprehensive socio-political data has been spearheaded by the Indonesian Democracy Index (Indeks Demokrasi Indonesia/IDI) and the Anti-Corruption Perception Index (Indeks Persepsi Anti Korupsi/IPAK). Based on the completeness of data and starting to carry out statistical research on socio-political science, the opportunity to research socio-politics from a quantitative approach is increasingly open. In addition, quantitative-based socio-political research can be an alternative for complex analysis in the context of uncertainty. It is necessary to analyze the influence of the role of political institutions on the anti-corruption perception index because it is an analysis of statistically generated data. It would be better to represent it more deeply and more scientifically through quantitative testing which has better rules and analysis in numerical and data terms than qualitative research. Quantitative socio-political research to find the empirical scientific relationship between the Indonesian democracy index and the anti-corruption perception index is very necessary, because the need for complete and sustainable data will be easier to study in a quantitative approach. This study aims to find the relationship between the Indonesian democracy index and the anti-corruption perception index and to find out what factors the Indonesian democracy index will to support an increase in the anti-corruption perception index in Indonesia.

Indonesia provides a good data and case study for analyzing the relationship between political institution role on Indonesian Democracy Index variables impact on the anti-corruption perception index. The main basic hypothesis is that political institution role will cause an impact to anti-corruption perception index with assumption the politic actor and social community used the political institution role to be role model of democracy and create better perception for anti-
corruption. Based on the topic, section 2 will look at the basic literature review and the experience of Indonesia to managed a long history of reform and politics with provides the theoretical model in democratic and anti-corruption experience review. Section 3 will present the empirical technique and model with use the quantitative approach and discovery the fact based from the result of estimation. Section 4 will present finding and discussion based from the analysis, and section 5 will present the conclusion of the paper.

2. Literature Review

2.1 Indonesian Democracy on Politic and Economics Policy: Soekarno to Joko Widodo

The development of democracy in Indonesia has a long history. Starting with the Indonesian independence revolution in 1945 to 1965, the reign of President Ir. Soekarno and collectively all circles have a strategic agenda to defend Indonesia's independence (Limah, Utomo, & Suryadi, 2018). During the Soekarno administration, Indonesia was on the way to finding a suitable identity for the state and government system. This has been seen from the shift in the various constitutional systems in use, from presidential, parliamentary to the formation of leading democracy/demokrasi terpimpin (Nasution, 2005; Bathoro, 2018). At that time, Indonesia approached the concept of a single government with a president in full power with concept of leading democracy (demokrasi terpimpin) (Bathoro, 2018). In 1967 a change of power began to appear and shifted to President Soeharto. President Soeharto has focus with concentration on development policies such as the Five Year Development Plan (Rencana Pembangunan Lima Tahun/REPELITA), anti-communist propaganda, investment permits for foreign companies and the establishment of Pancasila to be the mandatory basis for all social and political organizations in Indonesia (Matsui, 2003). During the Soeharto era, Indonesia had high economic growth as a newly independent nation and began to reorganize its socio-economic and political conditions. The development of democracy further shifted from the guided democracy era to the Pancasila democracy period propagated by Soeharto even though some observers considered the political and economic democracy policies implemented were deemed inconsistent with the 1945 Constitution/Undang-Undang Dasar 1945. (Wasti, 2015).

The Soeharto government established a multiparty system and its simplification emerged in 1973 with the formation of the Indonesian Democratic Party (Partai Demokrasi Indonesia/PDI), the United Development Party (Partai Persatuan Pembangunan/PPP) and Golongan Karya as part of fusion parties system based on similar ideology (Iskandar, 2016). In the case of general elections for the council during the Soeharto era, it was held every 5 years but for the president it was elected by the People's Consultative Assembly (Majelis Permusyawaratan Rakyat/MPR). The socio-political conditions during what was often referred to as the Orde Baru era were more stable because of the very strong government control. However, in 1997-1998, when the Asian financial crisis and monetary crisis occurred, the Soeharto government ended due to the pressure of economic, social and political problems at that time (Tarmidi, 1999). Furthermore, during the transitional period of the Orde Baru and the birth of the reformation period (Era Reformasi), which during the reign of President BJ Habibie, President Abdurrahman Wahid and President Megawati Soekarnoputri where the most important agendas is to created economic stability and political stability formed through the support of party coalitions after the decline of the Orde Baru regime. During this transitional period, the political policy that made a huge contribution to democracy was the approval of articles on Human Rights (pasal Hak Asasi Manusia/HAM) which were successfully produced through amendments to the constitution of UUD 1945 and the granting of freedom to form
political parties, associate, assemble and argue in public (Haryanto, Suhardjana, Komari, Fauzan, & Wardaya, 2008). In addition, the Corruption Eradication Commission (KPK) was formed in terms of monitoring and investigating corruption cases. On the other hand there was a division of the Armed Forces of the Republic of Indonesia (Angkatan Bersenjata Indonesia/ABRI) serve as the Indonesian National Army and the Indonesian Police to divide the task between security and order within the country. Furthermore, the presidential election was made through popular votes (direct votes from the people) which represented the Indonesian president chosen by the Indonesian people. The development of democracy during the transition period is like opening a water tap that has been closed so far.

During the ten-year reign of President Susilo Bambang Yudhoyono, he restored political and economic stability in Indonesia. Many socio-economic programs are carried out such as direct cash assistance, village development and fuel oil subsidies. Politically, President Susilo Bambang Yudhoyono’s tenure is stable due to the support of strong political parties and the mass media which are not as fast developing as during in Joko Widodo era. The assumption in media politics is that the greater the independent press, the greater the freedom one has in democracy (Aminah, 2006). During the period of Joko Widodo who was elected in 2014, he certainly continued political and economic stability, especially prioritizing village development through village funds and infrastructure development. However, during the time of Joko Widodo, the development of the media was very developed and became one of the places for increasingly rapid political development. President Joko Widodo gave freedom to the regions through financial decentralization for development so that regional independence to develop socio-economic and political development by themselves with support from central government. This shows the rapid development since the development of Indonesian democracy which was previously influenced by the political elite but is now more broadly influenced by the image of the media (Hartiana, Setyarinata, & Nugraheni, 2020).

Figure 1. Fluctuation of Political Institution Role
Source: Indonesian Central Statistics Bureau

The government, through the Indonesian Central Statistics Agency, issued a new approach in observing the development of democracy in Indonesia, with using the mechanism analysis through the Indonesian Democracy Index (IDI). To determine IDI, the government performs
data processing which begins with determining the weights for each aspect, variable and indicator (Badan Pusat Statistik, 2020). This process has been carried out for the 2009 IDI calculation using the analytical hierarchy procedure (AHP) (Badan Pusat Statistik, 2020). AHP is a methodological approach to determining priorities among a number of complex criteria by relying on expert judgment. In the AHP process for IDI weighting, the judges who were asked to evaluate were 14 people from various backgrounds.

The processing of data from newspaper reviews and document reviews to produce an indicator index begins with calculating quantitative data to score quantitative data. Furthermore, the quantitative data scores were combined with the qualitative data from the FGD and WM results to produce an indicator index. The score of this indicator will be calculated for the variable index, then the variable index for calculating the aspect index, and in the end it will be calculated as the index of democracy in a province. For the national IDI, it is obtained through the IDI of all provinces which is calculated by weighting (Badan Pusat Statistik, 2020).

Based on variable approach to measured the IDI, we have a lot variables test but for this paper we only use the classification for political institution role, that is include role of DPRD, role of political parties, role of local government bureaucracy and role of independent judiciary. The DPRD has a role in its function as a legislative body in oversight, legislation and budgeting so that the supervision of the prevention and eradication of corruption can control a number of main tasks, powers and functions of the DPRD. Local Government Bureaucracy is essential to got a role to be executive government for planning, processing and evaluating the public policy for development. On the other hand, political parties has a role to be the intermediary of political system and create the political that would to support a legislative and executive duty. The last role of institution is independent judiciary who has a role to create justice of legal law, which mean that independent judiciary is completeness of prevention and eradication of corruption case with collaboration between KPK, government and legislative.

2.2 Anti-Corruption Perception Index

Formation of the Komisi Pemberantasan Korupsi/ Indonesian Corruption Eradication Commission (KPK) in Indonesia officially in 2002 in accordance with Undang-Undang Nomor 30 Tahun 2002 tentang Komisi Pemberantasan Tindak Pidana Korupsi (Law Number 30 of 2002 about Corruption Eradication Commission). The Corruption Eradication Commission has carried out the prevention and eradication of corruption cases for quite a long time. According to the 2012-2018 KPK annual report, it is found that if classified based on institutions, there is a new pattern of behavior where in 2009-2016 the most corrupt institutions tend to be Ministries and Institutions, while in 2017 to 2020 the most corrupt institutions have moved to become district and city governments. One of the changes in this pattern is the widespread implementation of fiscal decentralization by the central government to optimize the role of regional autonomy and the independence of regional development. Meanwhile, if reviewed based on the type of case, from 2010 to 2020 the cases that were frequently handled by the KPK were bribery cases. This is closely related to fiscal decentralization, which causes the procurement of government goods and services to be managed independently by the regions. The tendency for indications of bribery to occur is very vulnerable to winning government project tenders.
Figure 2. Corruption Based on Type of Institution
Source: Indonesian Corruption Eradication Commission

Figure 3. Corruption Based on Type of Legal Case
Source: Indonesian Corruption Eradication Commission

Figure 4. Fluctuation of Anti-Corruption Perception Index
Source: Indonesian Central Statistics Bureau
The Anti-Corruption Perception Index (Indeks Persepsi Anti Korupsi/IPAK) is a composite indicator whose data is obtained from the Anti-Corruption Perception Survey (SPAK). The IPAK constituent variables were selected from a set of questions on the SPAK questionnaire using an explanatory factor analysis (EFA). IPAK is compiled based on two main substances, namely opinions about habits related to the roots and anti-corruption behavior in society as well as experiences of corrupt practices related to public services in the past year. IPAK as a composite index was calculated using several interdependent variables which were statistically significant. A statistical analysis method is needed that is able to handle the interdependency between variables and at the same time provides a weighting for each statistically significant variable (Badan Pusat Statistik, 2020).

3. Research Method

In this study using a quantitative research method approach, namely research that puts forward analysis based on a numerical approach by testing hypotheses and empirical proof in order to find facts with a specific, proportional and accurate approach (Sugiyono, 2013). The data used are secondary data form Indonesia Central Bureau of Statistics.

3.1 Data

The data used in this research are the Anti-Corruption Perception Index (IPAK / Anti-Corruption Perception Index / Y3), the Role of the Regional People's Representative Council (Dewan Perwakilan Rakyat Daerah/DPRD/X1), the Role of Political Parties (X2), The Role Of The Local Government Bureaucracy (X3) and The Role Of An Independent Judiciary (X4). The data used comes from the Indonesian Central Bureau of Statistics. The information about the data used as follows:

Table 2. Descriptive Statistics

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Median</th>
<th>Std Dev.</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>IPAK</td>
<td>3.632500</td>
<td>3.620000</td>
<td>0.054707</td>
<td>3.55000</td>
<td>3.71000</td>
</tr>
<tr>
<td>PDPDRD</td>
<td>47.77875</td>
<td>44.83000</td>
<td>10.84491</td>
<td>35.5300</td>
<td>61.7400</td>
</tr>
<tr>
<td>PPP</td>
<td>64.06000</td>
<td>65.61500</td>
<td>15.44947</td>
<td>35.5100</td>
<td>82.1000</td>
</tr>
<tr>
<td>PPD</td>
<td>68.96750</td>
<td>59.42000</td>
<td>19.94046</td>
<td>47.5100</td>
<td>99.3800</td>
</tr>
<tr>
<td>PPI</td>
<td>88.37250</td>
<td>88.51500</td>
<td>4.163312</td>
<td>82.4200</td>
<td>93.6600</td>
</tr>
</tbody>
</table>

Table 3. Correlation

<table>
<thead>
<tr>
<th></th>
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<th>PDPDRD</th>
<th>PPP</th>
<th>PPD</th>
<th>PPI</th>
</tr>
</thead>
<tbody>
<tr>
<td>IPAK</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PDPDRD</td>
<td>0.872378</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PPP</td>
<td>0.397407</td>
<td>0.707196</td>
<td>1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3.2 Multiple Linear Regression

3.2.3 Modeling

Regression analysis is used to see the relationship between the dependent variable impact from the independent variable, this relationship could be in the form of a linear or nonlinear relationship (Widarjono, 2005). The Ordinary Least Square (OLS) approach method is a method that uses a geometric approach in which the geometric lines that best match the distribution of the sample are the lines that have the minimum deviation (smallest error) with scattered data. (Krisnawardhani, Salam, & Anggraini, 2010). The fulfillment of classical assumptions is used by obtaining OLS in the form of BLUE (best linear unbiased estimator). (Haryati, 2017). A linear regression model consists of an estimated form, namely simple linear regression and multiple linear regression (Briliant & Kurniawan, 2019). Simple linear regression has only one dependent variable and one independent variable. The multiple linear regression consists of one dependent variable and more than independent variables (Somantri & Muhidin, 2014; Widarjono, 2018). In this study using multiple linear regression statistical analysis and general equations are as follows:

\[ Y_i = \beta_0 + \beta_1 X_i + \beta_2 D_i + \epsilon_i \]  

(2)

To use the OLS approach, it is necessary to change the linear model in equation (2) to an explicit model for errors, then squaring the error so that the equation described in Krisnawardhani, Salam, & Anggraini (2010) is as follows:

\[ \sum_{i=1}^{n} \epsilon_i^2 = \sum_{i=1}^{n} (Y_i - \beta_0 - \beta_1 X_i - \beta_2 D_i)^2 \]  

(2)

Assuming that \( s = \sum_{i=1}^{n} \epsilon_i^2 \), then a partial arrangement of \( s \) is carried out on the coefficient \( \beta_0, \beta_1, \beta_2 \) then minimizing and simplifying it so that the estimator becomes the following equation:

\[ \hat{\beta}_0 = \frac{\sum_{i=1}^{n} Y_i - \beta_1 \sum_{i=1}^{n} X_i - \beta_2 \sum_{i=1}^{n} D_i}{n} \]  

(3)

\[ \hat{\beta}_1 = \frac{\sum_{i=1}^{n} Y_i X_i - \hat{\beta}_0 \sum_{i=1}^{n} X_i - \hat{\beta}_2 \sum_{i=1}^{n} D_i X_i}{\sum_{i=1}^{n} X_i^2} \]  

(3)
In finding a model approach that can fulfill the classical assumptions, the model can be converted into a logarithmic (log) or natural logarithmic (ln) form. The regression equation in this study is as follows:

\[ \text{Ln}(Y) = \alpha + \beta_1 \ln(X_1) + \beta_2 \ln(X_2) + \beta_3 \ln(X_3) + \beta_4 \ln(X_4) + e \]  

(3.2)

With information:

- \( Y \) = Anti-Corruption Perception Index
- \( X_1 \) = The role of the DPRD
- \( X_2 \) = The Role of Political Parties
- \( X_3 \) = Role of Local Government Bureaucracy
- \( X_4 \) = The Role of an Independent Judiciary
- \( \alpha \) = constant
- \( \beta_1, \beta_2, \beta_3, \beta_4 \) = Regression coefficient for each variable
- \( e \) = Standard error / error rate

3.2.4 t-Statistic and F-Statistic Hypothesis

Statistical testing is using the t test and F test and the coefficient of determination test. The t test identifies the hypothesis regarding the estimated parameters for each independent variable on the dependent variable individually. The F test identifies the model between the independent variable and the dependent variable together. While the coefficient of determination identifies the extent to which the independent variable used can explain the characteristics of changes in the dependent variable.

1) T test / partial test (test each variable)

Tests conducted identified the influence of the significance between the independent variables on the independent variables by using the significance of confident interval = 95% or probability <0.05. Looking for the t count stated in the following formula (Haryati, 2017):

\[ t_{hitung} = \frac{(\hat{\beta}_j)}{se(\hat{\beta}_j)} \]  

(2)
Where $\hat{\beta}_j$ is the hypothesized in $j$ parameter estimator and $\text{se}(\hat{\beta}_j)$ is the standard error $\hat{\beta}_j$. The hypothesis used in this study refers to the probability value from the estimation results of the model. The statistical hypothesis composition is as follows.

a) Preparation of the t test hypothesis 1
   - Ho: $\beta = 0$, has no influence between the role of DPRD on the Anti-Corruption Perception Index
   - Ha: $\beta \neq 0$, has an influence on the role of DPRD on the Anti-Corruption Perception Index

b) Preparation of the t test hypothesis 2
   - Ho: $\beta = 0$, has no influence between the role of political parties on the Anti-Corruption Perception Index
   - Ha: $\beta \neq 0$, has an influence on the role of political parties on the Anti-Corruption Perception Index

c) Preparation of the t test hypothesis 3
   - Ho: $\beta = 0$, has no influence between the Role of Local Government Bureaucracy on the Anti-Corruption Perception Index
   - Ha: $\beta \neq 0$, has an influence between the Role of Local Government Bureaucracy on the Anti-Corruption Perception Index

d) Preparation of the t test hypothesis 4
   - Ho: $\beta = 0$, has no influence between the Role of the Independent Court on the Anti-Corruption Perception Index
   - Ha: $\beta \neq 0$, has the influence of the role of the independent court on the Anti-Corruption Perception Index

As for testing the hypothesis with the following probabilities:

- Ho: $\beta < 0,05$, has no influence between the independent variable on the dependent variable.
- Ha: $\beta > 0,05$, has an influence between the independent variable on the dependent variable.

2) Critical area and level of significance

As for $t = (t_\alpha, n - k)$ where $\alpha$ is the degree of significance that is 5%, $n$ is the number of samples observed and $k$ is the number of independent variables.
3) Testing criteria

![Figure 4. Test area Hypothesis 2](image)

Source: Somantri & Muhidin (2014)

- Ho is not rejected, if $-t_{table} < t_{hitung} < +t_{table}$. The conclusion is $X_1$ that statistically it has no effect on $Y$ at some $\alpha$ level.
- Ho is rejected, if $t_{hitung} < -t_{table}$ or $+t_{table} > t_{hitung}$ it can be concluded that $X_1$ it statistically affects $Y$ at a certain $\alpha$ level.

Another way to test for significance is to look at the probability value, if the probability $< 0.05$ then the regression coefficient has a significant effect at the level $\alpha = 5\%$. Meanwhile, if the probability $> 0.05$ then the regression coefficient has no significant effect at the level $\alpha = 5\%$.

4) F Test / Simultaneous Test (test simultaneously)

Used to test the significance of the independent variables together on the dependent variable. Formulation of hypotheses is $\beta_1 = \beta_2 = \cdots = \beta_n$ where $\forall i = 1,2,\ldots,k$. The steps taken to carry out the F test include:

a) Preparation of test hypotheses
   - Ho: $\beta_1 = \beta_2 = \beta_3 = 0$, there is no influence between the role of DPRD, the role of political parties, the role of local government bureaucracy and the role of an independent court on the Anti-Corruption Perception Index.
   - Ho: $\beta_1 \neq \beta_2 \neq \beta_3 \neq 0$, there is no influence between the role of the DPRD, the role of political parties, the role of local government bureaucracy and the role of an independent court on the Anti-Corruption Perception Index.

As for testing the hypothesis with the following probabilities:

- Ho: $\beta_1 = \beta_2 = \beta_3 < 0.05$, there is no influence between the role of DPRD, the role of political parties, the role of local government bureaucracy and the role of an independent court on the Anti-Corruption Perception Index.
• Ha: $\beta_1 = \beta_2 = \beta_3 > 0.05$, has an influence between the role of DPRD, the role of political parties, the role of local government bureaucracy and the role of an independent court on the Anti-Corruption Perception Index.

b) Critical area and level of significance

As for F table = $F(\alpha; (n - k), (k - 1))$, where $\alpha$ is the degree of significance (5%), $n$ is the number of samples observed and $k$ is the independent variable.

c) Testing criteria

![Figure 5. Test Area F](source: Somantri & Muhidin (2014))

- Ho is not rejected, if F count < F table. The conclusion can be said that all the regression coefficients are collectively insignificant at the $\alpha$ level.
- Ho is rejected, if F count > F table. The conclusion can be said that all regression coefficients are simultaneously significant at the $\alpha$ level.

5) Determination Coefficient Testing ($R^2$)

This test is used to find out how many% of the variation in the dependent variable can be explained by variations in the independent variable. We can do it through a comparison, $0 \leq R^2 \leq 1$ where $R^2$ between 0 and 1, $R^2$ have positif value. If it is $R^2$ has a value of 1, it means that the relationship between the dependent variable and the independent variable is perfect, and if it $R^2$ has a value of 0 then there is no relationship between the dependent variable and the independent variable.

3.2.5. Classical Assumption Test Testing

1) Normality test

The normality test is a test to determine whether the data used has a normal distribution or not (Gujarati, 2010). One of the approaches used in the normality test is the Jarque-Bera test and the use of a residual histogram (Widarjono, 2018).

2) Multicollinearity Test

There is a relationship between some or all of the variables that explain the regression model. If there is multicollinearity in the model, the model has a large standard error so that the coefficient cannot be estimated with high accuracy. One way to detect the presence or absence
of multicollinearity is to use the Variance Inflation Factor (VIF) estimation method. The equation for estimating the VIF value is as follows:

\[ VIF = \frac{1}{1 - r^2_{12}} \]  

(1)

3) Heteroscedasticity Test

Heteroscedasticity occurs when the disturbance occurs in the regression function which has unequal variances so that the OLS estimation is inefficient in both small and large samples (but still unbiased and consistent). Testing using test Breusch-Pagan-Godfrey. Statistically, a model that is consistent with or avoids the problem of heteroscedasticity is as follows:

\[ E(e_i) = \sigma^2 \quad i = 1,2, ..., n \]  

(2)

4) Autocorrelation Test

Autocorrelation is the correlation between the disturbance variables so that the estimator is no longer efficient in both small and large samples. Terms to test autocorrelation is with used the LM Test, through looking at the residual results. Or it can be done by measuring the significance if <0.05 then autocoleration occurs. Autocorrelation problems can be overcome through the use of the Newey West standard error method (Haryati, 2017). According to Wooldridge in Haryati (2017), the correction of autocorrelation symptoms that causes biased data is carried out through the use of the Newey West standard error which can overcome the problem of heteroscedasticity and autocorrelation. The Newey-West standard error formula is as follows:

\[ se_{newey-west}(\hat{\beta}_p) = \left(\frac{se(\hat{\beta}_p)}{\hat{\sigma}^2}\right)^2 \sqrt{\hat{\nu}} \]  

(3)

Where \( se(\hat{\beta}_p) \) is the standard error of the \( p \) parameter from the initial regression, \( \hat{\sigma}^2 \) is the estimator of the variety of models in the initial regression and \( \hat{\nu} \) is the value obtained by solving as follows:

\[ \hat{\nu} = \sum_{t=1}^{n} \hat{\alpha}_t^2 + 2 \sum_{n=1}^{g} \left[1 - \frac{h}{g+1}\right]\left(\sum_{t=h+1}^{n} \hat{\alpha}_t \hat{\alpha}_{t-h}\right) \]  

(3)

With value \( \hat{\alpha}_t \) can be obtained through the following steps:

a. \( y_t = \beta_0 + \beta_1 x_{1t} + \ldots + \beta_k x_{kt} + u_t \) with OLS to obtain \( se(\hat{\beta}_1) \), and error \( \sigma u_t \)
b. Calculate error \( r_t \) from auxiliary regression (additional regression) via equations \( x_{1t} = \delta_0 + \delta_2 x_{t1} + \ldots + \delta_k x_{tk} + r_t \) \( \hat{\alpha}_t = \hat{r}_t \hat{\alpha}_t \quad t = 1,2, ..., n \). Newey West suggests taking \( g \) to be the integer part from \( 4\left(\frac{\nu}{100}\right)^{2/9} \) which \( h \) can be accepted from the formula \( h = \exp (g) \).
4. Findings and Discussions

4.4 Estimation Result of Multiple Linear Regression Analysis

In estimating the multiple linear regression analysis, a number of information will be obtained including the coefficient and probability values to explain the relationship between the dependent variable and the independent variable. The following are the results of the estimation of multiple linear regression analysis using the OLS approach.

Table 6. Result Estimate of Multiple Linear Regression Analysis

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Panel A: Coefficient Estimates of Linear OLS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>0.978821</td>
<td>0.195017</td>
<td>5.019168</td>
<td>0.0152</td>
</tr>
<tr>
<td>Ln (X₁_Ro₁)</td>
<td>0.408557</td>
<td>0.037112</td>
<td>11.00891</td>
<td>0.0016</td>
</tr>
<tr>
<td>Ln (X₂_Ro₂)</td>
<td>-0.029325</td>
<td>0.006061</td>
<td>-4.838238</td>
<td>0.0168</td>
</tr>
<tr>
<td>Ln (X₃_Ro₃)</td>
<td>0.023539</td>
<td>0.007146</td>
<td>3.293978</td>
<td>0.0459</td>
</tr>
<tr>
<td>Ln (X₄_Ro₄)</td>
<td>-0.048261</td>
<td>0.040603</td>
<td>-1.188600</td>
<td>0.3201</td>
</tr>
<tr>
<td>Panel B: Diagnostic Check</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R-squared</td>
<td>0.980511</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adjusted R-squared</td>
<td>0.954525</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prob (F-statistic)</td>
<td>0.006723</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The estimation results in table 6 show that the coefficient of estimating the role of DPRD is 0.408557, the coefficient of estimating the role of political parties is -0.029325, the coefficient of estimating the role of local government bureaucracy is 0.023539, the coefficient of estimating the role of an independent judiciary is -0.048261. In the role of the DPRD and the role of the local government bureaucracy, a positive coefficient is found, this shows that an increase in the performance of the DPRD's role and the better role of local government bureaucracy will also increase the anti-corruption perception index. Meanwhile, the role of political parties and the role of an independent judiciary is known to have a negative coefficient, this means that the decline in the role of political parties in government and professional bureaucracy will increase the level of anti-corruption perceptions. On the other hand, for independent judiciary coefficient is <0,05 have result that role of independent judiciary is not significant to anti-corruption perception index. This result is used for the analytical of political institution role impact to anti-corruption perception index to found how the polarization of
political will and function in each function of the role will create a pattern to increase the anti-corruption perception index. The next step is to test with classical assumption test is basically the requirement method for using the regression with OLS approach.

4.5 Classic Assumption Test

4.5.1 Normality Test

By using the residual graph histogram and seeing the value of the Jarque-Bera test, it is found that the data used in the multiple linear regression analysis equations are normally distributed.

![Histogram Residuals Graph and Jarque-Bera Test Result](image)

Source: Writer Document

4.5.2 Multicollinearity Test

The test used in the multicollinearity test is the Vector Inflation Factor (VIF) with conditions <10. The results of the test using VIF found that all variables have a value <10 so that there is no multicollinearity problem.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient Variance</th>
<th>Uncentered VIF</th>
<th>Centered VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>X5_RO_1</td>
<td>0.001377</td>
<td>1938.529</td>
<td>3.227774</td>
</tr>
<tr>
<td>X5_RO_2</td>
<td>3.67E-05</td>
<td>488.5527</td>
<td>1.867938</td>
</tr>
<tr>
<td>X5_RO_3</td>
<td>5.11E-05</td>
<td>701.8574</td>
<td>2.737826</td>
</tr>
<tr>
<td>X5_RO_4</td>
<td>0.001649</td>
<td>25709.95</td>
<td>2.508378</td>
</tr>
<tr>
<td>C</td>
<td>0.038032</td>
<td>29539.75</td>
<td>NA</td>
</tr>
</tbody>
</table>

4.5.3 Heteroscedasticity Test
The heteroscedasticity test used in this study is test Breusch-Pagan-Godfrey. The results show that in the model Prob. Chi-Square (4)> 0.05 so there is no heteroscedasticity problem.

Table 3. Heteroscedasticity Test Result

<table>
<thead>
<tr>
<th>A. Indicator and Value</th>
<th>Value</th>
<th>Prob. F (4,3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>F-statistic</td>
<td>1.396857</td>
<td>0.4080</td>
</tr>
<tr>
<td>Obs * R-squared</td>
<td>5.205217</td>
<td>0.2669</td>
</tr>
<tr>
<td>Scaled explained SS</td>
<td>0.355416</td>
<td>0.9860</td>
</tr>
</tbody>
</table>

4.5.4 Autocorrelation Test

To predict the occurrence of autocorrelation or a high correlation between variables used the Serial Correlation LM test. The result shows that the LM Test on the model is <0.05 so that it indicates autocorrelation. On the other hand, there is a biased standard error. To overcome this, the data transformation is used.

Table 4. Serial Correlation LM Test Result (use Breusch-Godfrey Test)

<table>
<thead>
<tr>
<th>A. Indicator and Value</th>
<th>Value</th>
<th>Prob. F (2,1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>F-statistic</td>
<td>7.912672</td>
<td>0.2438</td>
</tr>
<tr>
<td>Obs * R-squared</td>
<td>7.524527</td>
<td>0.0232</td>
</tr>
</tbody>
</table>

Obtained the results of a larger standard error and an increase in value in the estimation results of the Durbin-Watson statistical test. The occurrence of an improvement in the standard error which is better indicates that there is an improvement in the model and the autocorrelation problem has been resolved, resulting in the estimation equation used in this study. improvement through the use of the Newey-West method raises a better standard error to obtain parameter estimates in the model (Haryati, 2017). According to the model, we have no autocorrelation problems according to repair the standar error from the model with use Newey-West method.

4.6 t-Statistic and F-Statistic Test (Hypothesis Test)

This significance test aims to see whether the independent variable either partially or simultaneously can influence the dependent variable. In this case using t-statistical significance test and F-statistic.

1) T-Statistical Test (Partial Test)

a. Preparation of the t test hypothesis 1

The hypothesis used is to look at the probability value, which is as follows:

- Ho: $\beta < 0.05$, it has no influence between the independent variable on the dependent variable.
- Ha: $\beta > 0.05$, has an influence between the independent variable on the dependent variable.
It was found that the probability value of the role of DPRD was 0.0016 <0.05, so that the role of DPRD had a significant effect on the Anti-Corruption Perception Index. The probability value of the role of political parties is 0.0168 <0.05 so that the role of political parties has a significant effect on the Anti-Corruption Perception Index. The probability value of the role of the local government bureaucracy is 0.0016 <0.05 so that the role of the local government bureaucracy has a significant effect on the Anti-Corruption Perception Index. The probability value of the independent judiciary role is 0.0016 <0.05 so that the role of DPRD has a significant effect on the Anti-Corruption Perception Index.

Table 6. Signification Test Result

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Probability</th>
<th>Signification Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Role of DPRD</td>
<td>0.408557</td>
<td>0.0016</td>
<td>Positive Significant</td>
</tr>
<tr>
<td>Role of Political Parties</td>
<td>-0.029325</td>
<td>0.0168</td>
<td>Negative Significant</td>
</tr>
<tr>
<td>Role of Local Government</td>
<td>0.023539</td>
<td>0.0459</td>
<td>Positive Significant</td>
</tr>
<tr>
<td>Role of Independent Judiciary</td>
<td>-0.048261</td>
<td>0.3201</td>
<td>Negative Not Significant</td>
</tr>
</tbody>
</table>

2) F-Statistical Test (Simultaneous Test)

The hypothesis used is to look at the probability value, which is as follows:

- Ho: there is no influence between the role of DPRD, the role of political parties, the role of local government bureaucracy and the role of an independent court on the Anti-Corruption Perception Index.\( \beta_1 = \beta_2 = \beta_3 < 0.05 \)
- Ha: there is an influence between the role of DPRD, the role of political parties, the role of local government bureaucracy and the role of an independent court on the Anti-Corruption Perception Index.\( \beta_1 = \beta_2 = \beta_3 > 0.05 \)

It was found that the probability value of the role of DPRD, the role of political parties, the role of regional government bureaucracy and the role of independent judiciary was 0.006723 so that the role of dprd, the role of political parties, the role of regional government bureaucracy and the role of independent courts has a significant effect on the Anti-Corruption Perception Index.

4.6 Discussion

The availability of data on the Indonesian Democracy Index (IDI) and the Anti-Corruption Perception Index (IPAK) makes quantitative approaches work well. The fundamental relationship that the Indonesian Democracy Index according to variables can affect IPAK is that democracy is the ideology of government and IPAK takes internal and external perspectives of government to see anti-corruption perceptions. In accordance with the KPK's annual report, it shows that most of the criminal acts of corruption are in the government.
Democracy does not create government but government is an instrument in carrying out the goals of democracy itself. So analyzing corruption in government will be closely related to how ideology (such as democracy) will participate in influencing the behavior of bureaucrats who run the country.

The role of DPRD is closely related to the main tasks and functions assigned to run the legislative government. Through its apparatus and rights, DPRD is able to improve IPAK by optimizing its supervisory, legislative and budget functions. The role of political parties is often difficult to measure for certainty, but if it is assumed that political parties provide a lot of corrupt politicians by reducing the role of political parties in filling public positions or reconstructing the rules of main duties, powers and functions in government to overcome corruption problems.

The role of the local government bureaucracy is very strategic because most of the corruption crimes originate from bureaucrats. With the increasing quality of bureaucrats in government, it will increase awareness to be honest and anti-corruption. The role of an independent judiciary in this study is insignificant. In theory, the independent judiciary has a portion to be support institution for eradication of corruption, so it is the final stage of efforts to prevent and support the law of justice in eradication of corruption. Preventive measures are necessary to prevent and eradicate corruption and improve IPAK in government in order to create an anti-corruption and professional environment in public services.

**Conclusion**

By conducting research with a quantitative approach, it was found that there were a number of differences in the roles of each variable in the Indonesian democracy index. This result of analysis is similar found with This indicates that quantitatively we can see developments in the eradication of corruption through monitoring and improving the quality and awareness of bureaucrats for anti-corruption. This can be started by encouraging the regional executive government and the regional legislative government to collaborate with each other in preventing and eradicating corruption.

**References**


Menganalisis Pendapatan Petani Kelapa Studi Kasus: Petani Kelapa di Desa Beo, Kecamatan Beo, Kabupaten Talaud. *JdC*, 196-203.


