# An Analysis on Corruption Indication Effect toward Development in East Indonesia Region  (Education, Health, and Road Infrastructure Sectors)

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**Abstract**

This research aims to (1) know the effect of corruption indication on public budget in education, health, and road infrastructure sectors, (2) know the effect of corruption indication on public sector service in education, health, and road infrastructure sectors, and (3) know the effect of corruption indication on economic growth in East Indonesia region. The analysis approach used in this research is Path Analysis which is intended to reveal both direct and indirect effects of corruption indication on public budget, public service, and economic growth in East Indonesia region.The result demonstrates that corruption indication has positive effect on public budget, particularly for education and health sectors as perceived from corruption perception index variable. It implies that budget increase is not always followed by higher rate of corruption. The effect of corruption indication does not have significant effect on public budget for education, health, and road infrastructure sectors as perceived from the amount of government loss. There is not government loss potential even the budget for education, health, and road infrastructure sectors raises. The effect of corruption indication influences budget for education, health, and road infrastructure sectors as perceived from positive surplus budget (SiLPA); it indicates corruption potential due to weak budget planning.The increase on education budget in this research is proven to be able to improve public service quality in education sector; meanwhile, the increase on health budget is not yet able to improve public service quality in health sector. This result also demonstrates that an increase on road infrastructure budget is not yet able to improve the availability and quality of road infrastructure service. The increase on education budget is able to improve human resource quality. Greater human resource quality results in higher economic growth. An increase on health budget is proven to negatively influence economic growth. An increase on road infrastructure budget is also confirmed to have non-significant effect on economic growth. It implies that low quality of service on health sector and poor availability and quality of road infrastructure are proven to hinder economic growth.

**Keywords**: The Effect of Corruption Indication, Public Budget, Public Service, Economic Growth

## 1. Introduction

High corruption phenomenon is a common problem faced by several developing countries. Weak bureaucracy and weak law and justice enforcement are assumed to be the causes of the corruption in some countries (Klitgard, 2001). In economics perspective, the increasing number of rent seeking and corruption are caused by several points such as: the international trade barriers, price control conducted by government, the applicable multiple exchange rates, and the low rate of government officer's salary (Mauro, 1997). The effect of corruption is extensive including the decrease on human resource quality, poor road infrastructure development, and hindered economic growth.

The empirical evidence shows that the relationship between corruption and human resource quality is negative but significant; yet, the role of corruption on tax earning and misallocation of local government budget is positive and significant (Mauro, 2004; Knack and Kneefer, 1995; and, Dewi, 2002). On the other hand, economic growth is expected to be able to reduce poverty and income discrepancy through trickle-down effect mechanism. The weak on fund capital and human capital resulted from the lack of accessibility on financial institution is perceived as the main cause of poverty among developing countries (Sarkar and Aynul, 2001). The economic model gives a clue that corruption will directly affect the factors that influence economic growth.

Most of the countries have established their legal law and regulation for protecting their economic system from recession condition which causes low economic growth (Quintos, 1995). The literature demonstrates that economic growth is able to improve financial management and government governance system; yet, it is not able to run redistribution function. Central and local government revenue improvement due to good financial management and good government governance will be utilized to improve productive investment. There are two different approaches in the literature related to corruption effect: it increases efficiency or reduces efficiency.

Those who support the argument that corruption increases efficiency (Kiltgard, 2001; Noriss, 2000; Pelegrini and Garlagh, 2004) state that corruption eases the flow of business and trade, eases the investment inflow, and increases economic growth. Those who support the argument that corruption reduces efficiency (Tanzi and Davoodi, 1997; Mauro, 1995; Lerrick, 2005; Ratnawati, 2011) claim that corruption hinders business and trade activities, reduces public expenditure, disturbs public service, and increases poverty; as the consequence, corruption impedes economic growth and distorts resources allocation. Corruption harms efficiency.

Some empirical studies on the role of corruption (Ventelou, 2002) estimate that corruption act for $ 1 results in economic loss for $1.67. Mauro (1996), Ades & Di Tella (1997), and Tanzi & Davoodi (1997) find the negative relationship between investment and corruption. Mauro (1996) and Tanzi & Davoodi (2000) find the negative relationship between real gross domestic product per capita and corruption. Mo's (2001) analysis result shows that 1 percent increase of corruption rate reduces up to 0.72 percent of economic growth. The impact of corruption is extensive, such as on: the quality of human resource, poor infrastructure services (telephone/communication, electricity, water, airport, and road), and economic growth (Suryadarma, 2008; Ackerman, 2009).

Mauro's (2000) empirical study result indicates that corruption shrinks the amount of public expenditure that is allocated to the overall sectors. Part of government budget is corrupted by corrupt bureaucrats during the stages of the budget arrangement processes. The next finding shows that corruption does not only change the amount of the total real expenditure but also alters its distribution. Corruption affects public expenditure structure which allocates more defense budget, as well as oil and energy sectors budget but sacrifices social sectors such as education, health, and social protection. Gupta, Davoodi, and Tiongson (2000) conclude that the high rate of corruption makes health and education even worse; as the consequence, the rate of school dropouts and baby mortality raises.

Podobnik *et.al* (2008) in their research during 1999-2004 find the direct relationship between public investment and corruption perception index. The prior research has shown that corruption causes positive effect on the amount of global budget, reduces public expenditure efficiency, and reduces education and health expenditure as the percentage of gross domestic product, as well as increases military expenditure. Mauro's (1998) research shows negative but significant relationship between corruption and government expenditure on education sector. Ramirez, Raniz, and Stewart (2000) mention that government expenditure positively influences education and health sectors enhancement, particularly for women; next, it supports economic growth.

In proving the effect of corruption indication on human development, Akcay (2006) uses corruption data from three different sources for corruption index such as Corruption Perception Index, International Country Risk Guide's, and Corruption Index constructed by Kaufmann, Kraay, and Mastruzzi (2003); it reveals that there is negative but significant relationship of corruption index on human development. It implies that a corrupt country tends to have lower human development index; furthermore, Akcay (2003) says that the negative consequence of corruption hinders human development. Loffgren and Robinson's (2004) finding in Bolivia and Nicaragua indicates that corruption hampers human development; yet, economic development, government intervention, culture, and democracy consolidation are statistically significant and able to reduce corruption. Corruption becomes the main hindrance of human development when democracy, education expenditure, and gross domestic product variables are involved in the analysis. It means that the improvement of human development quality which is measured by human development index will result in the improvement on democracy awareness and gross domestic product since the economic grows.

Suryadarma, (2008) shows that public sector expenditure on education influences school enrolment in regencies/cities of Indonesia which have high corruption level; on the other hand, the increase on education sector of public expenditure can encourage improvement on the school participation of the students both at the elementary and middle schools at regencies/cities which have high corruption rate. An increase on public expenditure can help improving school participation, particularly for students who come from poor family background. Public expenditure also influences the quality of school graduates even at regencies/cities which have low corruption rate.

According to Rajkumar and Swaroop (2007), in a country with high corruption level, an increase on public expenditure in health sector does not reduce the baby mortality rate but increases elementary education quality in developing countries. Watanebe and Qizilbash (2001) explain that as government allocates public investment for sufficient health infrastructures, it will help unfortunate and society to free from poverty. Good health infrastructure will improve society life expectancy and encourage human capital accumulation improvement. The society will be free from poverty as the income continues to grow up.

Ratnawati (2011) explains that corruption reduction and infrastructure improvement are two things that should by refined by Indonesia government achieve better economic growth. Calderon and Ukkan (2005) demonstrate that (i) positive economic growth is affected by infrastructure availability and (ii) a decrease on income discrepancy is due to better availability of infrastructure. Infrastructure development is effective to reduce poverty. The effect of better availability and quality of infrastructure is significant on economic aspects. Calderon and Ukkan (2005) describe poor infrastructure as the main hindrance of economic development in Sub-Sahara Africa.

Tanzi and Davoodi (2000) say that corruption will raise the number, value, and complexity of a project which in turn also increase public investment ratio toward gross domestic product, reduce budget allocation for public service on education, health, and social insurance, as well as shrink the economic growth. Education, health, and road infrastructure are the basic needs of the society that should be fulfilled by the government; and those three aspects highly influence economic growth (Gupta *et.al*. 2002). Meanwhile, the implementation of local autonomy policy and fiscal decentralization policy are considered based on the assumption that local autonomy knows better what the people in its authority need and the public service standard for the society in its region; therefore, local autonomy is expected to be able to foster public welfare in local region based on the budget allocation which is transferred by central government annually. The autonomy is expected to be able to encourage an improvement on economic growth rate.

The economic model shows that corruption will directly affect the factors which influence economic growth; meanwhile, the government model indicates that corruption will reduce government budget so that public needs procurement will reduce as well (Chetwind *et.al*. 2003).

The problem faced by East Indonesia region is related to the low quality of human resource, poor road infrastructure quality, and low economic growth. The causes of this problem are lack of funding source support and high corruption rate in the regional level. Corruption correlates to government expenditure in education sector, health sector, road infrastructure, and also economic growth. Anan (2003) says that corruption causes the decrease on public service; besides, it causes a lame budget allocation on each sector. Chetwind *et.al*. (2003) say that corruption reduces the composition balance of public budget allocation among education, health, and road infrastructure sectors; furthermore, it also affects economic growth in long term. If corruption distorts development, corruption will also necessarily be able to decrease economic growth.

A comprehension on the role of corruption indication toward public expenditure, public service quality, and economic growth in East Indonesia is critically needed as information source during local autonomy era; this understanding is important and urgent as the motive to conduct this research.

The main objective of this research is to improve the understanding on the relationship between public budget corruption indication, public service, and economic growth based on the cross-sectional data among 16 provinces in East Indonesia. The specific objectives of this research are: 1) to analyze the role of corruption indication on budget in education, health, and road infrastructure sectors, 2) to analyze the role of corruption indication on public service in education, health, and road infrastructure sectors, and 3) to analyze the role of corruption indication on economic growth.

## 2. Method

The research method utilized to answer problem formulation and to achieve the research objective is path analysis. The aim of path analysis is to explain both direct and indirect effects of a set of variables as the independent variables toward the other variable(s) as the dependent variable(s) (Sarwono, 2007:2-5). This analysis is one of the methods to describe a set of abundant data and to investigate the relationship of a causal model that has been formulated by a researcher based on the theoretical consideration and particular knowledge. The form of causal relationship in this study uses complex model since there are some variables which take two different roles: as independent variables in a relationship and as dependent variables in another relationship. This kind of variables relationship requires an analysis instrument which is able to explain it simultaneously.

Path analysis is the proper choice. Model formulation to test the role of public budget corruption indication, public service, and economic growth can be described in the equation (1) to equation (6). The model of corruption indication is as follow:

a. The direct effect of corruption indication on education budget:
$$Y_1 = A_0 + A_1 PUS + A_2 CPI + A_3 JKND + A_4 SiLPA + e_{it} \qquad (4.1)$$
b. The direct effect of corruption indication on health budget:

$$Y_2 = B_0 + B_1 JP + B_2 CPI + B_3 + JKND + B_4 SiLPA + e_{it} \qquad (4.2)$$

c. The direct effect of corruption indication on road infrastructure budget:

$$Y_3 = C_0 + C_1 CPI + C_2 JKND + C_3 SiLPA + C_4 RPJB + e_{it} \qquad (4.3)$$

d. The direct effect of education and health budgets on human resource quality:

$$Y_4 = D_0 + D_1 NBSP + D_2 NBSK + e_{it} \qquad (4.4)$$

e. The direct effect of road infrastructure budget on road infrastructure quality

$$Y_5 = E_0 + E_1 NBSIJ + e_{it} \qquad (4.5)$$

f. The direct effect of the value of expenditure on education, health, and infrastructure sectors on economic growth

$$Y6 = F_0 + F_1 NBSP + F_2 NBSK + F_3 NBSIJ + e_{it} \qquad (4.6a)$$

g. The indirect effect of human resource quality and road infrastructure quality on economic growth

$$Y_6 = F_0 + F_1 SDM + F_2 KIJ + e_{it} \qquad (4.6b)$$

Description:

- $Y1$, $Y2$, $Y3$ are education budget, health budget, and road infrastructure budget variables respectively
- $Y4$ is human resource management variable
- $Y5$ is the road's availability and quality variable
- $Y6$ is economic growth variable
- NBSP is the expenditure value on education sector
- NBSK is the expenditure value on health sector
- NBSIJ is the expenditure value on road infrastructure sector
- SDM is the quality of human resource as measured by using IPM which is reflected on education and health.
- KIJ is the quality of road infrastructure which is indicated by its quality and availability that are in good condition at provincial level
- PE is economic growth
- PUS is the school-aged population
- CPI is corruption perception index
- SiLPA is surplus budget (*Sisa Lebih Perhitungan Anggaran*)
- JKN is the amount of government loss (*Jumlah Kerugian Negara*)
- RPJB is the ratio of poor road condition on each province

## 3. Result and Discussion

### 3.1. Analysis Result

The statistical analysis result demonstrates (see Appendix Table 1) that:

a. The direct effect of Corruption Perception Index on expenditure value for education sector (see Appendix Table 1) is statistically significant as the estimate value is 5.857 with 0.029 probability value. The direct effect of Corruption Perception Index on expenditure value for road infrastructure is statistically not significant as the estimate value is 3.903 with 0.522 probability value. The effect of corruption indication is positive on Corruption Perception Index which occurs for education and health budgets but not for road infrastructure budget; this is proven by better public perception as the budget increases. It means that budget increase does not always cause high corruption on education and health sectors in 16 provinces of East Indonesia.

b. The direct effect of the amount of government loss on expenditure value for education, health, and road infrastructure (see the Appendix Table 1) is statistically not significant as the estimates value are -0.022, -0.101, and 0.039 respectively with 0.749, 0.280, and 0.802 probability values correspondingly. The effect of corruption which is measured by using government loss indicator is not proven in this research. The increase on education, health, and road infrastructure budget allocation is followed by efficient budget utilization so that government lost can be prevented.

c. The direct effect of budget surplus on expenditure for education, health, and road infrastructure sectors is statistically not significant as the each estimate value is 0.085, 0.133, and 1.157 respectively and 0.000 probability value of each sector. The significant relationship between surplus budget (*SiLPA*) and corruption indication effect on education, health, and road infrastructure budgets indicates the potential of corruption to take place. The weak on budget planning aspect, the low capacity and capability of the

bureaucracy strengthen corruption indication. An increase on education, health, and road infrastructure budgets is potential to a corruption to occur since some of the budget cannot be absorbed.

d. The direct effect of education sector expenditure toward human resource quality (see Appendix Table 1) is statistically significant as the estimate value is 0.023 with 1.968 probability value. The increase on education budget is able to improve education service quality as reflected by the positive relationship between the increase on education budget and human resource quality improvement. It means that the statement which says corruption indication effect will decrease education service quality is not confirmed in this research.

e. The direct effect of health sector expenditure toward human resource quality is statistically not significant as the estimate value is -0.003 with 0.741 probability value. The increase on health sector budget in this research does not prove to be able to improve health service quality even the public perception is better on the health budget management.

f. The direct effect of road infrastructure sector expenditure on road infrastructure quality is statistically not significant as the estimate value is -0.161 with 0.418 probability level. The increase on road infrastructure budget in this research is not confirmed to be able to improve the availability and service quality of road infrastructure sector. The low budget absorption rate strengthens the argumentation of the potential corruption to take place.

g. The direct effect of human resource quality toward economic growth (see Appendix Table 1) is statistically significant as the estimate value is 14.896 with 0.001 probability value. The direct effect of road infrastructure quality toward economic growth is statistically not significant as the estimate value is 0.027 with 0.342 probability value. The increase on human resource quality is proven to be able to improve economic growth; yet, road infrastructure does not have any direct significant effect on economic growth at East Indonesia.

h. The direct effect of education, health, and road infrastructure sectors expenditure toward economic growth (see Appendix Table 1) is statistically not significant as the estimate values are 0.048, -1.302, and 0.089 respectively as the probability values are 0.944, 0.610, and 0.702 correspondingly. It means that the increase on education, health, and road infrastructure budget does not have any direct significant effect on economic growth at East Indonesia.

### 3.2. Discussion

#### 3.2.1. The Effect of Corruption Indication on Education, Health, and Road Infrastructure Budget

Referring to the statistical analysis, it is proven in this research that the role of corruption indication influences budget on education, health, and road infrastructure sectors as shown by the positive value of "*sisa lebih perhitungan anggaran*." (SiLPA/ surplus budget). The weak budget planning causes low absorption on the allocated budget. It means that the relationship among the increase on education, health, and road infrastructure budgets with positive surplus budget shows the potential of corruption to take place. This result is in accordance with Mahmud (2012) as he says that "the high surplus budget does not only cause a rise on the opportunity of the society to achieve more facilities but diminish public service but also the economic value chain (multiplier effects) that is bound on budget function is cut.

The result indicates that in Indonesia, particularly in provinces located at East Indonesia as the sample of this research, an improvement on human resource quality, enhancement on education and health service in local region supported by good road infrastructure availability do not guarantee that those will reduce corruption. In 2012, there are 13 corruption cases in education sectors, 9 cases in health sector, and 11 corruption cases in general affairs sector. The resource allocation in the budget is distorted when the bureaucracy is corrupt. Corrupt behavior is related to the opportunity to achieve personal benefit on the funded projects such as budget allocation which even greater on the projects that are easier to be corrupted and provide more personal benefit (Mauro, 1998). It means that corruption and rent seeking activities in the government influences the number and composition of the government budget.

The research result on 16 provinces in East Indonesia shows that the effect of corruption indication on public budget occurs in education, health, and road infrastructure sectors. Scholarship fund for poor student corruption case in North Maluku Province in 2010 was Rp. 11.98 billion. The corruption case on text book procurement in 2010 at Education, Youth, and Sport Service of Kupang City, Nusa Tenggara Timur implied government's budget loss as much as Rp 2.6 billion. Corruption case

allegation on supporting references, references, and education guideline procurement for elementary and special primary school in 2012 at Nunukan Regency, South Kalimantan Province is adverse for government budget as much as Rp 3.17 billion. The corruption case on free education budget program of Palopo City – South Sulawesi Province in 2011 is Rp 3.9 billion. The corruption case allegation on Scholarship Fund for Poor Student at Mamuju – West Sulawesi in 2010 is Rp 27,475,000. This facts support the argumentation which says that corruption indication effect on education sector is adverse particularly for poor society.

The increase on road infrastructure budget in this research is also found to be not effective yet. High corruption still occurs in South Kalimantan, East Kalimantan, Maluku, South-East Sulawesi, Central Sulawesi, Central Kalimantan, and Gorontalo Provinces. Corruption on road infrastructure development budget comes up in road and bridge infrastructure development which links Nopi and Buntuna of Central Sulawesi Province in 2012; this case causes government loss as much as Rp 6.66 billion. Corruption allegation case in road development project on Jalan Maupunggo – Puwada, Nusa Tenggara Timur Province in 2009 was Rp 314 million. Corruption allegation case in road development at Wetar Island, Norteast Maluku in 2012 was Rp 20.63 billion. Those facts indicate that the effect of corruption indication on public budget can hinder government's effort to accelerate the development processes on education, health, and road infrastructure sectors in East Indonesia.

### 3.2.2. The Effect of Corruption Indication on Public Service (Education, Health, and Road Infrastructure)

Based on the statistical analysis result of this research, it is found that corruption indication effect influences public service on health and road infrastructure. The budget increase on health and road infrastructure sectors does not significantly improve society health condition and road infrastructure quality due to corruption. This result supports Tanzi and Davoodi's (2000), Calderon and Serven's (2005), Watanabe and Yasuoka's (2011), and Ratnawati's (2011) research. This finding is different from Mauro's (1998), Gupta, Davoodi, and Tiongson's (2002) finding. It is due to the differences on region's characteristic or the regions which are chosen as the research sample. Most of the researchers observe the relationship between public service budge and corruption by using data from several countries; yet, this research sample uses regional area in single country.

As we observe from its role, public service budget (health and road infrastructure sectors) has positive effect on corruption. The effect of corruption indication on public service occurs on health and road infrastructure sectors due to budget increase. This result is relevant with other research result (Rajkumar and Swaroop, 2007) which says that health sector is the most important public service sector that should be met by the government; thus, the allocation on this sector is relatively higher than other sectors. Ratnawati (2011) says that the increase on regency/city government expenditure budget in Indonesia on rad infrastructure sector for 11 up to 13 percent is not in line with the improvement on the quality of the infrastructure, particularly for road infrastructure. In 2007, the length of regency/city road which is in very poor condition is 24.9 percent; yet, in 2010, the very poor road condition achieves 44.4 percent due to corruption.

This research also demonstrates the direct relationship between road infrastructure sector expenditure and the quality of road infrastructure which is not significant (see the Appendix Table 1). The increase on road development budget in East Indonesia cannot improve the quality of road infrastructure. The analysis result proves that the ratio of poor road length positively correlates to the increase on road development budget. This finding is relevant with the finding of *Komite Pemantau Pelaksanaan Otonomi Daerah* (Local Autonomy Implementatation Monitoring Committee) (2012) which finds that road infrastructure become the main obstacle of the business activities in Indonesia.

The explanation on the research finding confirms that the research hypothesis is accepted as the corruption has negative effect on public service, particularly on health and road infrastructure sectors. Budget increase does not have positive implication on human resource quality improvement as observed from health indicator, availability and quality of road infrastructure indicator in East Indonesia.

### 3.2.3. The Effect of Corruption Indication on Economic Growth

The statistical test result (see Appendix Table 1) related to the effect of corruption indication on economic growth in East Indonesia demonstrates positive result which correlates human resource quality and economic growth. The increase on education budget positively affects human resource quality and economic growth in East Indonesia region. The positive relationship between Corruption

Perception Index and surplus budget toward an increase on education budget indicates corruption potential; however, an increase on education budget positively influences human resource quality which then improves economic growth. It concludes that the effect of the occurring corruption indication, particularly in education sector, is still acceptable; yet, the increase on education budget is able to improve human resource quality and economic growth in East Indonesia region.

The finding above also strengthens the former theory and prior empirical results from Andreosso & Callaghan (2000), Todaro (2003), and Schweke (2004). They say that human capital is one of the critical determinants of economic growth. The relationship between education, health, and economic growth is reciprocal. Education provides significant contribution on economic development. Education does not only deliver excellent human resource quality that has knowledge and skill but also cultivate fair and conducive business atmosphere for economic growth. Therefore, investment on human resource is not only beneficial for individual but also for general development of a country.

The analysis result demonstrates that direct relationship among education, health, and road infrastructure budgets toward economic growth is not significant. The increase on education, health, and road infrastructure sectors indirectly improves economic growth. The direct relationship among Corruption Perception Index, surplus budget, and poor road infrastructure ratio is positive toward education, health, and road infrastructure budgets which reinforces the corruption indication to occur. Mauro (1995) says that if Indonesia is able to improve its Corruption Perception Index equal to Singapore, the ratio of Indonesia's total public expenditure will raise to 9.98 percent. Gyimah-Brempong (2001), Mujtabala (2006), and Uneke (2010) prove that if Corruption Perception Index of a country improves for 1 percent, it will raise gross domestic product growth between 0.75 up to 0.90 percent as well as increase income per capita between 0.39 up to 0.41 percent. The basic argumentation is that corruption results in resources loss which causes the economic condition of a country below its potential capacity.

The road infrastructure quality variable based on the analysis shows that there is no significant relationship. Budget increase on road infrastructure development is not able to improve the quality of road infrastructure since the prior research analysis result shows that the ratio of poor road length continues to increase. This result confirms that corruption allegation on education, health, and road infrastructure sectors affect economic growth in East Indonesia region. The prevention effort on development budget abuse for education, health, and road infrastructure sectors is urgent to be taken by involving the society and mass media; further, law enforcement should be implemented.

## 4. Conclusion

1. Corruption tends to expand the budget, thus:
   a. The effect of corruption indication on public budget in this research is positive for education and health sectors. Positive public perception indicates better budget management, implementation, and controlling systems in education and health sector as the effort of corruption prevention.
   b. The effect of corruption indication on public budget in this research is proven to be not significant for road infrastructure sector. This result reveals that there is not better development on the budget management, implementation, and controlling systems particularly in road infrastructure sector.
   c. The effect of corruption indication on public budget for education, health, and road infrastructure sectors in this research demonstrates the potential of corruption indication effect. The positive relationship between surplus budget and budget increase on education, health, and road infrastructure sectors indicates unfavorable budget planning.

2. The effect of corruption indication on public service quality in this research confirms that
   a. Corruption indication is able to improve public service quality in education sector. An increase on education budget, followed by better public perception on budget management, implementation, and controlling, positively influences education service quality as the quality of human resource is improved.
   b. Corruption indication cannot improve public service quality in health sector. Budget increase on health sector, followed by better public perception on budget management, implementation, and controlling, is not yet able to significantly influence health service quality improvement.

    c.   Corruption indication cannot improve public service quality in road infrastructure sector. The availability and quality of the road remain poor; thus, it indicates that the efforts taken by the government by improving road infrastructure budget does not yet show better result.

3.   The effect of corruption indication on economic growth shows that

    a.   Positively, corruption indication is able to improve economic growth. Education budget increase, followed by human resource quality improvement, becomes an important factor to encourage local economic growth in East Indonesia region.

    b.   Corruption indication hinders economic growth. Positive public perception related to the budget management, implementation, and controlling in health sector does not provide significant contribution on human resource quality improvement; even, it negatively affects economic growth in East Indonesia region.

    c.   Corruption indication hinders economic growth. Road infrastructure budget increase does not have significant effect on the availability and quality of road infrastructure. It obstructs economic growth both directly and indirectly in East Indonesia region.

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**Appendix**
**Tabel 1**
**Regression Weights: (Group number 1 - Default model)**

| Variables | | | Estimate | S.E. | C.R. | P | Label |
|---|---|---|---|---|---|---|---|
| NBSIJ | <--- | RPJB | .784 | .330 | 2.372 | .018 | |
| NBSP | <--- | PUS | -.028 | .007 | -3.922 | *** | |
| NBSP | <--- | CPI | 5.857 | 2.687 | 2.180 | .029 | |
| NBSK | <--- | CPI | 6.907 | 3.637 | 1.899 | .058 | |
| NBSIJ | <--- | CPI | 3.903 | 6.090 | .641 | .522 | |
| NBSP | <--- | SILPA | .085 | .016 | 5.383 | *** | |
| NBSK | <--- | SILPA | .133 | .021 | 6.183 | *** | |
| NBSIJ | <--- | SILPA | .157 | .036 | 4.370 | *** | |
| NBSP | <--- | JKND | -.022 | .069 | -.320 | .749 | |
| NBSK | <--- | JKND | -.101 | .093 | -1.080 | .280 | |
| NBSIJ | <--- | JKND | .039 | .156 | .251 | .802 | |
| SDM | <--- | NBSP | .023 | .011 | 1.968 | .049 | |
| KIJ | <--- | NBSIJ | -.161 | .198 | -.809 | .418 | |
| SDM | <--- | NBSK | -.003 | .008 | -.330 | .741 | |
| PE | <--- | NBSP | .048 | .681 | .071 | .944 | |
| PE | <--- | NBSIJ | .089 | .232 | .383 | .702 | |
| PE | <--- | NBSK | -1.302 | .506 | -2.572 | .010 | |
| PE | <--- | KIJ | .027 | .079 | .342 | .732 | |
| PE | <--- | SDM | 14.896 | 4.664 | 3.194 | .001 | |

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