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3

E-Business, The impact of the Regional Government Development (APBD) on Information and Communication Development in Indonesia

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Abstract. The decline of development delivered from natural resources in several regions in Indonesia requires local governments to make a breakthrough in increasing revenues beyond natural resources, including through increased revenue in the field of information technology. The purpose of this study is to analyze the impact of the regional government development (APBD) on information and communication development in Indonesia. By using correlational research, it is known that all of APBD sub variables have a high correlation in increasing Gross Regional Domestic Product (GRDP) of Information and Communication in Indonesia, only sub-variable of surplus/deficit development, unexpected development sub-variable, sub-variable of development aid to province/regency/city and village government, and sub-variable of development special allocations that have not a significant correlation to increase of GRDP of Information and Communication in Indonesia. There is 86,7% of APBD variable influence the increase of GRDP of Information and Communication, while the increase of 15,3% of Information and Communication GRDP influenced by other factors aside from APBD. It shows the strong impact of APBD on increasing GRDP of Information and Communication

1. Introduction

Regional Government Development (APBD) is an effort of local government in Indonesia in optimizing the existing resources, increasing its regional development, and allocating it to the welfare



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of the community. By looking at the potential of an area in terms of development, it can be formulated appropriate policies, either by the local government itself, the central government, as well as other stakeholders[1]. For example, the 2017 APBD of Sumatra has increased to Rp 227.8 trillion compared to the 2016 APBD of Rp 196.8 trillion. The highest growth of APBD in Sumatra is in the province of Bangka Belitung Islands (6.42%), while the largest increase of APBD is in North Sumatra at 26.57% (yoy). Meanwhile, in some provinces on the island of Sumatra showed a decrease in budget as in Riau as the DBH development of oil and gas decreased. The performance of regional absorption in APBD in Eastern Indonesia (KTI) in the first quarter of 2017 was 21.31%, lower than the achievement of the same quarter of the year in 2016 of 22.41%, the decrease of PAD development and other legitimate development compared with the same quarter last year. In Kalimantan, in particular, the impact of coal exports has not had a direct impact on development performance in the region and is expected to impact and development capacity in the region in the current quarter. Decrease in development in some areas that are sourced from natural resource activities require local governments should be able to make a breakthrough income increase beyond natural resources, one of which increased development in the field of information technology[2]. Urban infrastructure development is a promising business. In the midst of urbanization around the world, especially in developing countries, infrastructure investment, especially in the electricity, rail, road, water, sanitation, home, airport, mobile and internet sectors is accelerating due to high income and middle-class growth[3]. In the field of information and communications technology, the linear impact of Internet penetration and usage is positive and significant for low-income countries. The focus of ICT development is to promote ICT innovations for sustainable development. For that, the use of the Internet is expected to provide great benefits[4]. Technological innovation has always been regarded as a major stimulus for development growth. High-speed Internet access through broadband infrastructure has grown rapidly since the late 1990s as a result of the deployment of fixed and mobile technologies, a positive correlation between broadband and development growth, the relevant quantitative relation between broadband and dynamics in the short, medium and long term[5][6]. In the Arab and Middle East regions, especially in high-income Arab and Middle East countries, the internet has become a significant growth determiner [7].

This study aims to see the effect of the size of the regional budget (APBD) on Information and Communication Economic in Indonesia.

2. Methodology

This research is a correlational research. Correlational analysis describes the relationship between independent variable and dependent variable[8]. In this research, APBD become Variable X and Information and Communication development become Variable Y. The population in this research is 151 cities / districts in Indonesia and by using total sampling, all units of population then become sample. Pearson Correlation, R test and regression analysis were used to process the data in this study[9][10][11][12].

3. Result and Discussion

The impact of Information and Communication APBD development, to know the magnitude of the influence of APBD on Information and Communication development used multiple linear regression formula. Table 1 shows the dependent and independent variables in this study.

Table 1. Research Variables

Y = PDRB Information and Communication	X ₁₆ = Employee Indirect of development
X ₁ = Local development	X ₁₇ = Grant of development
X ₂ = Local PAD of development	X ₁₈ = Social of development
X ₃ = Local Tax of development	X ₁₉ = Expenditure of development Assistance to the Provincial/District/Municipal and Pemdes
X ₄ = Local retribution of development	
X ₅ = development of Local assets	

X ₆ = Other valid PAD of development	X ₂₀ = Unexpected development
X ₇ = Balancing Fund of development	X ₂₁ = Direct development
X ₈ = Non-tax and tax share	X ₂₂ = development of Goods and services
X ₉ = General Allocation DAU	X ₂₃ = Capital of development
X ₁₀ = Special Allocation DAK	X ₂₄ = Surplus/Deficit of development
X ₁₁ = Other valid Local of development	X ₂₅ = Local Financing of development
X ₁₂ = Provision of tax development sharing by Province and others	X ₂₆ = Local Revenue of development
X ₁₃ = Adjustment Funds and Special Autonomy	X ₂₇ = SILPA before
X ₁₄ = Local Expenditure of development	X ₂₈ = Spending
X ₁₅ = Indirect Expenditure of development	X ₂₉ = Investment of development
	X ₃₀ = SILPA

Table 2 and Table 3 show the analysis results based on data from 151 cities throughout Indonesia

Table 2. Model Summary.

R	R Square	Adjusted R Square	Std. Error of the Estimate
0.933	0.871	0.847	913.72248

Table 2 above shows that the magnitude of the correlation coefficient (R) is 0.933, meaning that the GRDP Information and Communication variable has a very strong correlation with the variables of the APBD.

While the value of Adjusted R Square is 0.847, it means 86,7% influence of APBD to increasing GRDP Information and Communication, while the rest equal to 15,3% increase of GRDP Information and Communication influenced by factors other than APBD. This shows the strong impact of APBD on increasing GRDP Information and Communication.

Table 3. Multiple Linear Regression Equations.

Variable	Unstandardized Coefficients
(Constant)	-428.6115365
X ₄	-1.13263E-09
X ₅	-1.06629E-08
X ₆	6.61786E-11
X ₈	-5.49497E-09
X ₉	-2.48352E-09
X ₁₀	-2.51226E-09
X ₁₁	-3.64188E-09
X ₁₂	1.25897E-08
X ₁₃	2.4628E-09
X ₁₅	-3.88216E-09
X ₁₆	7.06921E-09
X ₁₇	6.70682E-09
X ₁₈	5.9941E-09
X ₁₉	3.3714E-09
X ₂₀	-1.16585E-08
X ₂₁	-7.46809E-09
X ₂₂	1.06337E-08
X ₂₃	1.10151E-08
X ₂₄	6.49394E-09
X ₂₇	4.10982E-09

X ₂₈	-6.89825E-11
X ₂₉	-1.7214E-08
X ₃₀	-4.25754E-09

The Multiple Linear Regression Equation, as follows:

$$Y = -428.6115365 - 1.13263E^{-09} X_4 - 1.06629E^{-08} X_5 + 6.61786E^{-11} X_6 - 5.49497E^{-09} X_8 - 2.48352E^{-09} X_9 - 2.51226E^{-09} X_{10} - 3.64188E^{-09} X_{11} + 1.25897E^{-08} X_{12} + 2.4628E^{-09} X_{13} - 3.88216E^{-09} X_{15} + 7.06921E^{-09} X_{16} + 6.70682E^{-09} X_{17} + 5.9941E^{-09} X_{18} + 3.3714E^{-09} X_{19} - 1.16585E^{-08} X_{20} - 7.46809E^{-09} X_{21} + 1.06337E^{-08} X_{22} + 1.10151E^{-08} X_{23} + 6.49394E^{-09} X_{24} + 4.10982E^{-09} X_{27} - 6.89825E^{-11} X_{28} - 1.7214E^{-08} X_{29} - 4.25754E^{-09} X_{30}$$

Based on the multiple linear regression equation above, it can be seen that the variables X₆, X₁₂, X₁₃, X₁₆, X₁₇, X₁₈, X₁₉, X₂₂, X₂₃, X₂₄, X₂₇ has a positive impact of increasing GRDP Information and Communication, while variable X₄, X₅, X₈, X₉, X₁₁, X₁₅, X₂₀, X₂₁, X₂₉, X₃₀ has a negative impact on the reduction of GRDP Information and Communication

4. Conclusion

All APBD variables have a high correlation to increasing GRDP of Information and Communication in Indonesia, only variable of surplus/deficit of development, unexpected expenditure of development, financial expenditure of development to province / regency / city and village government, and special allocation fund of development which have not significant correlation to the increase of GRDP Information and Communication in Indonesia. 86,7% influence of variable of APBD to increase of GRDP Information and Communication, while the rest equal to 15.3% increase of GRDP Information and Communication influenced by factors other than APBD. This shows the strong impact of APBD on increasing GRDP Information and Communication

References

- [1] B. P. Statistik, *Tinjauan Regional berdasarkan PDRB Kabupaten/Kota tahun 2011-2015 pulau Nusa Tenggara, Maluku dan Papua*. BPS, 2016.
- [2] Bank Indonesia, "Kajian Ekonomi Regional," 2017.
- [3] H. Jung and J. D. Son, "Estimation of urban infrastructure demand with consideration of urban characteristics," *ICIC Express Lett. Part B Appl.*, vol. 7, no. 2, pp. 295–300, 2016.
- [4] M. M. Albiman and Z. Sulong, "The linear and non-linear impacts of ICT on economic growth, of disaggregate income groups within SSA region," *Telecomm. Policy*, vol. 41, no. 7–8, pp. 555–572, 2017.
- [5] A. Castaldo, A. Fiorini, and B. Maggi, "Measuring (in a time of crisis) the impact of broadband connections on economic growth: an OECD panel analysis," *Applied Economics*, pp. 1–17, 2017.
- [6] J. Suyono, A. Sukoco, M. I. Setiawan, S. Suhermin, and R. Rahim, "Impact of GDP Information Technology in Developing of Regional Central Business (Case 50 Airports IT City Development in Indonesia)," *J. Phys. Conf. Ser.*, vol. 954, no. 1, p. 12045, Dec. 2017.
- [7] M. Badran, "The impact of broadband infrastructure on economic growth in Egypt and some Arab and emerging countries," ... *Univ. Fac. Econ. Polit. Sci.*, pp. 1–26, 2011.
- [8] B. E. W. Jr and Mary E. Kite, *Principles of Research in Behavioral Science: Third Edition 3rd Edition*. Routledge, 2012.
- [9] X. Su, X. Yan, and C.-L. Tsai, "Linear regression," *Wiley Interdiscip. Rev. Comput. Stat.*, vol. 4, no. 3, pp. 275–294, 2012.
- [10] N. Altman and M. Krzywinski, "Points of Significance: Simple linear regression," *Nat. Methods*, vol. 12, no. 11, pp. 999–1000, 2015.
- [11] M. J. Crawley, "Regression," in *The R Book*, 2007, pp. 387–448.
- [12] S. Weisberg, *Applied Linear Regression*, vol. 528, no. 0. 2005.

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PAGE 1

PAGE 2

PAGE 3

PAGE 4

PAGE 5

PAGE 6
