

Dimensions of Poverty Incidence Reduction in the Philippines

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Abstract: This study investigated the different dimensions of poverty incidence reduction in the Philippines through making use of secondary data. These were taken and organized by the researcher from the official gazettes posted in the websites of concern government entities, particularly the National Statistical Coordination Board (NSCB), the Department of Labour and Employment (DOLE), the Department of Finance (DOF) – Bureau of Internal Revenue (BIR). Specifically the data taken from the NSCB were those of poverty incidence, Gross Domestic Product (GDP) growth rate, population growth rate, per capita income, Good Governance Index (GGI), and government expenditures and savings average increases in the last 5 years. Data on employment rate were taken from the DOLE; and data on revenue collection by respective provinces were taken from the BIR. It was found out that significant dimensions to poverty incidence reduction in the Philippines include Internal Revenue Allotments (IRA) of provinces; spending on education and other manpower development programs and services by provincial governments; spending on health, nutrition, and population control programs and services by provincial governments; per capita income; revenue collection; and good governance.

Keywords: Good Governance Index (GGI), Department of Finance (DOF), Gross Domestic Product (GDP).

1. INTRODUCTION

Adamant poverty is one of the most persistent social problems facing Less Developed Countries like the Philippines today. It is difficult to estimate poverty accurately because the concept of poverty is not easy to define and even once it is defined it is not easy to measure in a way that is consistent with de definition (UNDP, 2005).

According to Balisacan (2013), widespread poverty is the single most important policy challenge facing the Philippines. Not only is poverty high compared with other countries in Asia and the world, but also its reduction is very slow that the country has become the basket case in the region.

Although poverty is recognized to be a multidimensional concept, income poverty in the Philippines is pervasive. Thus, the bulk of the income poor is likely to be also deprived in other dimensions such as educational achievement and good health.

Hence, we define the poor as those whose incomes fall below an income threshold determined by the government. In comparing poverty across countries, it is common to use a fixed norm or poverty line (i.e., the \$1 a day per person, in purchasing power parity, employed by the World Bank).

Our estimates of poverty based on official poverty lines reveal that, in 2012, the latest year when nationally representative data on household incomes are available, 28.50 percent of our population were poor; with the ARMM as the region having the highest poverty incidence (NSCB, 2013). Given the total projected population of 103 million Filipinos, there were about 29.36 million Filipinos across the country who are considered poor, that is basically at a ratio of one of every three Filipinos is living below the set poverty line.

Poverty reduction in the Philippines has lagged far behind those of its East and Southeast Asian neighbors, mainly Indonesia, Thailand, Vietnam and China. Both China and Vietnam started with higher levels of poverty incidence than did

the Philippines during the mid-1980s, but their absolute poverty soon dwindled and became much lower than the Philippines in the 2000s (Balisacan, 2013). Both Malaysia and Thailand also had virtually eliminated absolute poverty in just 20 years. Interestingly, while the Philippines had a much higher average income (\$1,129, in 2000 prices) in the mid-2000s than Vietnam (\$538) and Indonesia (\$942), its absolute poverty was actually much higher than either of the latter countries.

Much of what the public sees in media on the state of social development in the Philippines is the poverty in Metro Manila's slums. Yet, the poor in Metro Manila account for only 3.9% of the country's poor population. Metro Manila's poverty incidence is also the lowest among the regions, with the four regions Western Mindanao, Bicol, Eastern Visayas, and ARMM having the highest incidence of poverty. What is quite remarkable is the very high spatial diversity of poverty and poverty reduction in the Philippines. In recent years, some regions have done quite well in attaining high per capita income growth and reducing poverty, but disturbingly others have experienced declines in per capita income and increases in poverty. Note, for example, the alarmingly substantial increase of poverty in ARMM between 1988 and 2006. During this period, poverty also increased in Central Mindanao and CARAGA provinces (NSCB). Viewed from an international perspective, such disparities have breed regional unrest, armed conflicts and political upheavals, thereby undermining the progress in securing sustained economic growth and national development.

This paper outlines the regression analysis addressed towards determined dimensions prompting poverty reduction in the Philippines. The objective of this paper is to support the careful interpretation of poverty reduction factors and to emphasize the need for policy makers and administrators to keep finding ways to reduce poverty incidence in the country.

2. THE MODEL

The basic assumption of this research is that the dimensions of poverty incidence reduction in the Philippines include increasing income per capita, good governance, GDP, population, revenue collection, employment rate, Internal Revenue Allotment (IRA), total government expenditure, education expenditure, health expenditure, economic services expenditure, and savings.

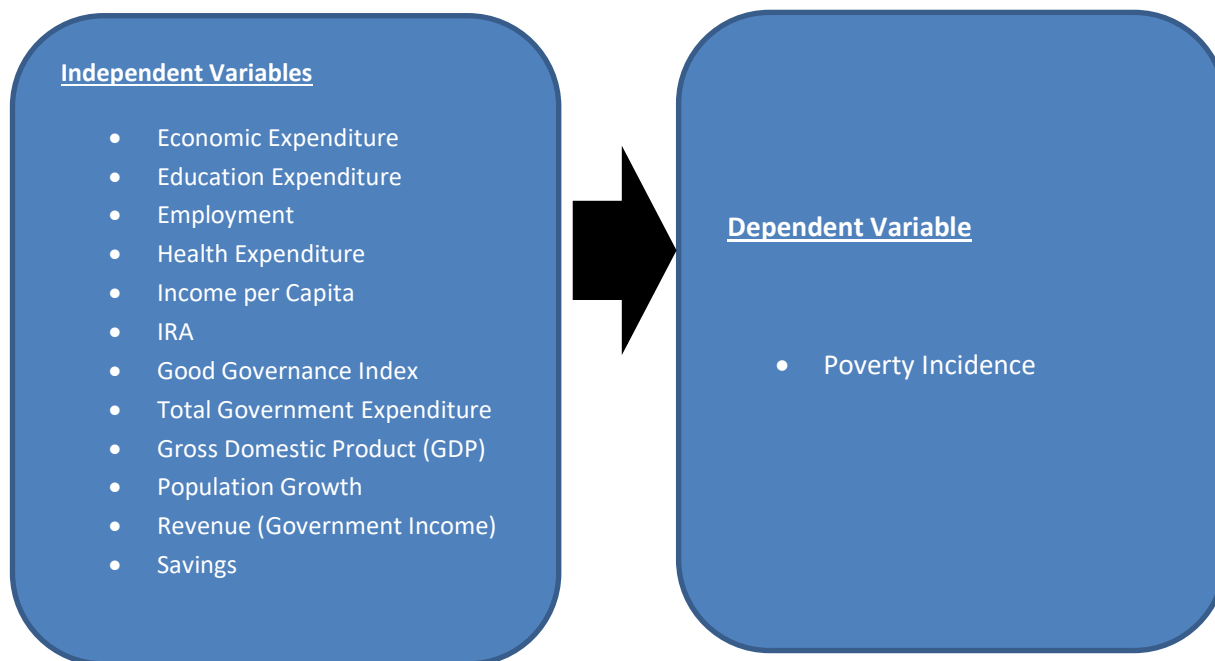
Hence, the following equation:

$$Y = a + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + \beta_8 X_8 + \beta_9 X_9 + \beta_{10} X_{10} + \beta_{11} X_{11} + \beta_{12} X_{12}$$

Where,

X_1	- Income per capita
X_2	- good governance
X_3	- GDP Growth
X_4	- Population
X_5	- Revenue Collection
X_6	- Employment Rate
X_7	- Internal Revenue Allotment Growth
X_8	- Total Government Expenditure
X_9	- Education Expenditure
X_{10}	- Health Expenditure
X_{11}	- Economic Services Expenditure
X_{12}	- Savings

Further, the following figure is the research paradigm showing the causal relationship of the variables mentioned above.



3. THE DATA

The secondary data being used are according to respective provinces of all the 16 political regions of the Philippines which include the National Capital Region (NCR), Cordillera Administrative Region (CAR), Regions I to XI, CARAGA Region, and the Autonomous Region of Muslim Mindanao (ARMM). These data were taken and organized by the researcher from the official gazettes posted in the websites of concern government entities, particularly the National Statistical Coordination Board (NSCB), the Department of Labour and Employment (DOLE), the Department of Finance (DOF) – Bureau of Internal Revenue (BIR). Specifically the data taken from the NSCB were those of poverty incidence, Gross Domestic Product (GDP) growth rate, population growth rate, per capita income, Good Governance Index (GGI), and government expenditures and savings average increases in the last 5 years. Data on employment rate were taken from the DOLE; and data on revenue collection by respective provinces were taken from the BIR.

Following are the specific definitions of the data being used in the study.

Economic Expenditure Growth is the average increase in the provincial governments' expenditure on livelihood services, local government economic enterprises and other economic services in the last 5 years.

Education Expenditure Growth is the average increase in the provincial governments' expenditure on education and other manpower development services in the last 5 years.

Employment rate is the percentage of the people who are actually employed to the population of individuals who are within the age of 15 to 65 years old in the year 2012. Employed individuals are either with employer or self-employed who are officially registered or enlisted in the data base of DOLE.

Good Governance Index (GGI) as defined in the NSCB framework, is the manner in which power is exercised in the management of the country's economic and social resources for development. It also refers to the exercise of economic, political and administrative authority to manage the nation's affairs at all levels. Thus, the framework covers three types of governance, namely: Economic Governance, Political Governance and Administrative Governance.

Government Expenditure Growth is the average increase in the provincial governments' total expenditure in the last 5 years.

Gross Domestic Product Growth Rate is the average growth rate of gross domestic product of provinces from 2011 to 2012.

Health Expenditure Growth is the average increase in the provincial governments' expenditure on health, nutrition, and population control programs and services in the last 5 years.

IRA Growth is the average increases of the provinces' Internal Revenue Allotment (IRA) in the last 5 years.

Income per capita is the average income of those who are recorded as actively participating in the labour force of the concern provinces.

Population Growth Rate is the average growth rate of the population of provinces computed by the NSCB based on the actual national census conducted from 1996 to 2010. Actual National Census is conducted every four (4) years.

Poverty Incidence is in percentage to the population of the respective provinces, 2012 data.

Revenue Collection is the total revenue collected by provinces by the Bureau of Internal Revenue. 2012 collection is year round on a quarterly basis.

Savings is the average increase in the provincial governments' savings.

4. DISCUSSION OF RESULTS

As can be gleaned from Table 1, the model summary table, the predictive value of this poverty incidence reduction model is at 59.3% given the R square value of 0.593 as reflected. The figures imply that 59.3 percent of the variations in poverty incidence can be explained by the model.

Table 1. Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					
				R Square Change	F Change	df1	df2	Sig. Change	FDurbin-Watson
.770 ^a	.593	.524	9.69347	.593	8.627	12	71	.000	2.208

a. Predictors: (Constant), logEmployment, EconServicesExpend, EducExpend, HealthExpend, logGGI, Savings, logRevenue, logincome, GDPGrowth, PopGrowth, ExpenditureGrowth, IRAGrowth

b. Dependent Variable: povertyincidence

Table 2, the ANOVA table establishes the goodness of fit of the model as reflected by the probability value (p value) of .000 that is highly significant at alpha .05 level of significance. This means to say that errors are not due to sampling.

Table 2. ANOVA Table

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9727.247	12	810.604	8.627	.000 ^a
	Residual	6671.403	71	93.963		
	Total	16398.650	83			

a. Predictors: (Constant), logEmployment, EconServicesExpend, EducExpend, HealthExpend, logGGI, Savings, logRevenue, logincome, GDPGrowth, PopGrowth, ExpenditureGrowth, IRAGrowth

b. Dependent Variable: povertyincidence

Table 3, the coefficients table presents the significant variables to poverty incidence reduction. As can be gleaned from the table, significant variables include Internal Revenue Allotment (IRA) Growth with a beta coefficient value of -1.477 and a probability value of .002; education expenditure growth with a beta coefficient value of -.250 and a probability value of .036; health expenditure growth with a beta coefficient value of -1.019 and a probability value of .000; log per capita income with a beta coefficient value of -3.849 and a probability value of .044; log revenue collection with a beta coefficient value of -3.480 and a probability value of .000; and log Good Governance Index (GGI) with a beta coefficient value of -15.351 and a probability value of .037. These values imply that provincial poverty incidence reduction is a

function of Internal Revenue Allotment (IRA); provincial expenditure on education which means manpower development; provincial expenditure on health which as defined include expenses on health, nutrition, and population control programs; per capita income; revenue collection; and good governance. More specifically, poverty incidence in provinces will decrease by 1.477% for every million increase in IRA considering other factors constant; by 0.250% for every million increase in government spending on education; by 1.019% for every million increase in government spending on health services considering other factors constant; by 3.849% for every thousand increase in average per capita income considering other factors constant; by 3.480% for every million increase in revenue collection considering other factors constant; and by 15.351% for every unit increase in Good Governance Index score considering other factors constant. Meanwhile, poverty incidence shall be constant at 27.860% when the values of those significant variables are equal to zero (0).

Table 3. Coefficients Table

Model	Unstandardized Coefficients		Standardized Coefficients	Sig.
	B	Std. Error	Beta	
(Constant)	27.860	168.315		.103
GDP Growth	.773	.576	.149	.184
Population Growth	-.962	3.272	-.034	.770
IRA Growth	-1.477	.453	.518	.002
Total Expenditure Growth	-.280	.269	-.158	.302
Education Expenditure Growth	-.250	.117	.267	.036
Health Expenditure Growth	-1.019	.215	.475	.000
Economic Expenditure Growth	-.165	.116	-.123	.160
Savings Growth	-.044	.031	-.170	.161
Log per capita income	-3.849	16.506	.188	.044
Log Revenue Collection	-3.480	.907	-.395	.000
Log Good Governance Index	-15.351	7.204	-.195	.037
Log Employment Rate	13.806	14.640	.123	.349

Dependent Variable: Poverty Incidence

5. CONCLUSION AND RECOMMENDATIONS

Based from on the foregoing discussions of the regression test results, the following conclusions are drawn.

Significant dimensions to poverty incidence reduction in the Philippines include Internal Revenue Allotments (IRA) of provinces; spending on education and other manpower development programs and services by provincial governments; spending on health, nutrition, and population control programs and services by provincial governments; per capita income; revenue collection; and good governance.

Thus, the following model is suggested:

Poverty Incidence Reduction = 27.9 – 1.48 (IRA Growth) – 0.250 (Education Expenditure Growth) – 1.02 (Health Expenditure Growth) – 3.85 (Log Income per Capita) – 3.480 (log revenue collection) – 15.35 (Log Good Governance Index).

More specifically:

- poverty incidence will be at 27.9% of the population when the values of the X's (the significant variables) are equal to 0;
- poverty incidence will decrease by 1.48% for every million increase in IRA, holding other variables constant;

- poverty incidence will decrease by 0.250% for every million increase in education expenditure holding other variables constant;
- poverty incidence will decrease by 1.02% for every million increase in health expenditure holding other variables constant;
- poverty incidence will decrease by 3.85% for every thousand increase in per capita income holding other variables constant; and
- poverty incidence will decrease by about 15.35 percent for every unit increase in Good Governance Index score, holding other variables constant.

Recommendations:

1. Local governments particularly the mother provinces must continuously strive to improve and strengthen their revenue collection strategies in order to regularly increase collections which would eventually increase their Internal Revenue Allotments that can be used to spend for poverty reduction programs and services;
2. Local government spending must include as their top priorities education and health programs and services in order to help reduce poverty incidence.
3. Livelihood programs and other requisites for increased per capita income must also be among the top priorities of local and national governments.
4. Good governance must always be a priority by both local and national governments. This could be in terms of combating corruption and tax evasion; and increased government spending to priorities such as health, education, and intensifying pro-poor livelihood programs.

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