Fiscal Decentralization and Human Poverty in Nepal: A Causal Analysis

Gopi K Khanal
Email: gopikhanal@gmail.com

This paper examines the contribution of fiscal decentralization on reducing human poverty in the districts of Nepal. Development landscape of twenty-first century has changed with more focus on human-centric development under the umbrella of human development. Accordingly, the broader goal of development is not only to increase the economic growth but also to enlarge the choices of people. The key finding of this paper is that the ongoing efforts on fiscal decentralization are supportive to reduce the human poverty in the districts. However, fiscal decentralization does not support to improve every dimension of human development. The paper also finds that urbanization is good for reducing human poverty.

Introduction

Over the last few decades, many countries around the world have pursued the course of decentralization by devolving revenue and expenditure decisions to local governments (Martinez-Vazquez, Lago-Penas, & Sacchi, 2015; Martinez-Vazquez, 2011). They have taken such course in the wake of changing political and development landscapes that demand more local autonomy in steering the process and outcomes of local governance and development. Countries are pursuing the path of decentralization in the expectations that it can yield better service deliveries, deepen democracy, create jobs, reduce poverty, and bring civic trust in public governance (The World Bank, 2000). The key motives behind decentralization are to deepen democracy and improve the well-being of local citizens.

Poverty reduction has been the overarching goal of development in Nepal since the formulation of Nepal's first fiver year development plan (1956-61) in the early 1950s. Despite some achievements in some social sectors and abundance of natural resources, Nepal is still considered as one of the poorest countries in the world. Currently, about 25 percent of people

live below poverty line in Nepal (Ministry of Finance, 2015). Early efforts on development were more focused on the reduction on income poverty. With the adoption of rights-based inclusive development, poverty is seen not only from the perspective of income deprivation but also taken as the absence of opportunity and capabilities (Sen, 2000). Contemporary discourse on development has given emphasis on reduction of different dimensions of poverty which is best captured by the notion of human poverty. The focus of the development in early twenty-first century has been judged from the broader perspective of human development. The goal of development in this respect is to address the human poverty as well.

Nepal has adopted multi-pronged strategies to address the concerns of poverty. One of the motives behind embarking on the journey decentralization-led development is to improve the well-being of people. Decentralization in this respect has been a strategy to reduce the poverty as well. With the enactment of Local Self-Governance Act (LSGA) in 1999, Nepal embarked on the journey of decentralized governance and devolved some revenue raising and spending powers to local bodies: District Development Committees, Village Development Committees, and municipalities. Despite continued absence of elected officials since 2002, Nepal is increasing the volume local fiscal size each year through fiscal transfers. At present, local expenditure accounts for 10 percent of total national budget (Local Bodies Fiscal Commission Secretariat, 2015). With the increase of fiscal space of local bodies, concerns have been raised on the effectiveness of local spending on development outcomes at the local level. This paper has made an attempt to examine the role of fiscal decentralization to reduce the human poverty.

Conceptualizing fiscal decentralization

According to Alam and Scott (2011), 'fiscal decentralization is financing mechanisms that underpin both the political and administrative forms of decentralization'. Fiscal decentralization is all about equipping local governments with required fiscal resource to meet their expenditures. 'It involves the transfer of expenditure responsibilities and revenue sources from central to local government' (Vista-Baylon, 2001; Faguet, 2004). Subsidiarity principle is the key theoretical construct behind the fiscal decentralization. According to this principle, 'taxing, spending, and regulatory functions should be exercised by lower levels of government unless a convincing case can be made for assigning them to higher tiers of governments' (Shah & Shah, 2006). Oates (1972) has provided the normative economic justification for fiscal decentralization. He states that 'each public service should be provided by the jurisdiction having control over the minimum geographic area that would internalize benefits and costs of such provision' (citied in Subedi, 2014). This means that responsibilities of service delivery lie with local governments as long as it can be provided efficiently and effectively. The key concept behind the fiscal decentralization is the shifting of spending and taxing functions to lowest tiers of government for optimal allocation of public fund.

The literature on fiscal decentralization has further elaborated the concept of fiscal decentralization through its four building blocks: expenditure assignment; revenue assignment; intergovernmental fiscal transfers; and local borrowing (Boex, 2001; Litvack & Seddon, 1999). Expenditure assignment is the first step of designing the intergovernmental fiscal relations. Expenditure assignment is simply about the distribution of public functions among the different levels of government. This step is so important that design of other pillars of fiscal decentralization without clear expenditure assignment would be like 'putting the cart before the horse' (Martinez-Vazquez, 2001). There are different approaches to distribute expenditure responsibilities among governments. Musgrave (1959) has provided the normative concept of optimal allocation of functions between central and local government. He has elaborated the three key economic roles of government: stabilization, distribution, and allocation. He suggested that local governments are the best institution for allocation, i.e., providing basic services to people. Subsidiarity principle has been the main underlying principle of optimal allocation of public functions between the center and local. According to this principle, public services should be provided by lowest tiers of government that is capable of providing public goods and services efficiently and effectively (Boex, 2001).

Revenue decentralization is considered as the second pillars of fiscal decentralization that involves devolving some of the tax powers to local governments. In an optimal tax assignment, local governments have the power to choose tax base, decide tax rate, retain tax proceeds, and spend the income from tax at local level. The main underlying principle behind revenue assignment is that there should be balance between expenditure functions and revenue means. The services that local governments provide should be clearly linked to the revenue sources needed to finance them (Freire & Garzon, 2014).
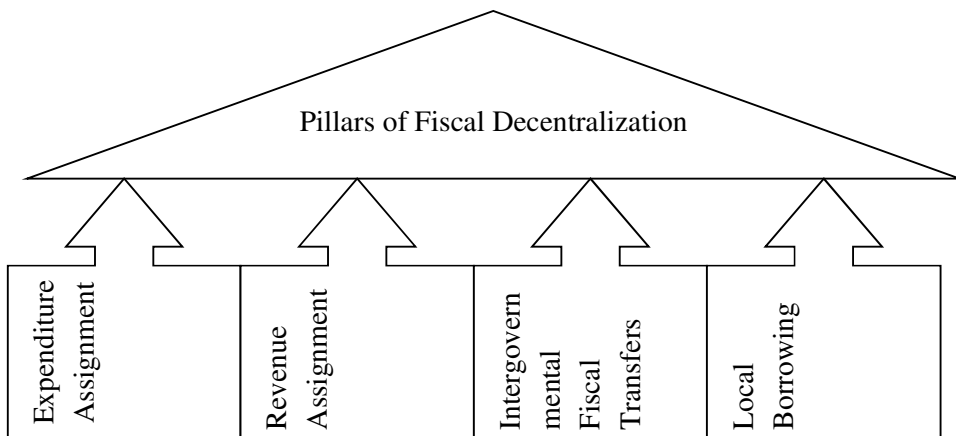

Figure 1. Pillars of fiscal decentralization (Martinez-Vazquez, 2001)

Despite many virtues associated with revenue assignment, fiscal transfers have been the dominate source of financing for local governments in most countries (Boadway & Shah, 2007). Fiscal transfers have been used to fill in the gaps between revenue means and expenditure needs in local government. These resources are helpful to address the issues of horizontal and vertical fiscal gaps. Horizontal fiscal gaps emerge due to asymmetric revenue potentialities across local government. The vertical fiscal gap is the result of mismatch between own-sourced revenues and expenditure responsibilities. Vertical fiscal gap is not the product of local fiscal behaviors. The government at center is responsible for vertical fiscal gaps. Among others, 'inappropriate assignment of responsibilities, lack of tax rooms at local levels due to heavier tax burdens imposed by the center, and centralization of taxing powers are the main causes of such gaps' (Shah, 2007). 'Intergovernmental fiscal transfers play an important role to minimize these gaps through the system of fiscal equalization' (Ebel & Muwonge, 2014). For instance, Government of Nepal is providing formula-based grants to local governments to reduce these gaps. Local governments in Nepal receive both conditional and unconditional block grants from the center.

Local borrowing is considered as the fourth pillar of fiscal decentralization in the literature. Local borrowing is an important source to meet the capital expenditures for local governments. Local governments can borrow from financial market, capital market, and/or from specialized borrowing institutions. The fundamental feature of local borrowing is that it transfers liabilities to future generation. It is recommended that resources from borrowing should be invested only for those projects that generate long-term economic benefits to citizens' (Freire., 2014. Local borrowing, however, may invite some fiscal risks at the local level or may pose threat to macro-economic stability at the centre. Given the sensitivity of local borrowing, many countries around the world have introduced hard budget constraints in the practice of fiscal decentralization (Miller & Hildreth, 2007). As such, instituting local borrowing without hard budget constraints could be fiscally risky in the management of fiscal decentralization (Asian Development Bank, 2001).

Fiscal decentralization and development outcomes

Theoretically, classical literature on fiscal decentralization has largely agreed on that fiscal decentralization brings economic benefits to citizens (Tiebout, 1956; Musgrave, 1959; Buchanan, 1965; Oates, 1972). These literatures argued that fiscal decentralization can lead to efficiency gains in the allocation of the public fund because local governments can match local preferences due to their proximity with local citizens. The one strand of literature on fiscal decentralization, however, does not see such automatic virtues arguing that in the absence of appropriate system and mechanisms in place, fiscal decentralization may lead to the elite capture and /or corruption (Bradhan & Mookherjee, 2000; Weingast, 1995, Qian & Roland, 1998; Markussen, 2006).

In a cross-country panel data analysis, Martinez-Vazquez and Sepulveda (2011) found the negative effect of fiscal decentralization on poverty outcome and income equality. It means that higher level of decentralization was associated with higher level of poverty. However, they observed that fiscal decentralization leads to reduce income inequalities if the contribution of the overall government budget is around 20 % or higher. They suggested that distribution function should be kept with central government if the overall government size in the economy is relatively small.

Taking case of India, Kalirajan and Otsuka (2012) studied the implication of decentralization on human capital formation. They noted the positive effects of provincial level fiscal decentralization on human capital formation through expenditures on health and education. They, however, could not find such results from the provinces to rural local bodies' decentralization. The fist-tier decentralization from centre to provinces was effective in showing positive outcomes. The results, however, were dismal in case of the second–tier decentralization, i.e., from provinces to local bodies. This is an important lesson for Nepal as the country has embodied the federalism for steering the state affairs.

In another cross-country empirical study, Sow and Razafimahefa (2015) indicated that fiscal decentralization can improve the efficiency of public service delivery provided that there are adequate political and institutional environment, a sufficient degree of expenditure decentralization, and sufficient decentralization of revenue generating powers. However, they noticed that expenditure decentralization is effective in service delivery in advanced economies than in emerging economies and developing countries. Revenue decentralization, however, have positive impacts on service delivery across all countries. Martinez-Vazquez observed positive implications of fiscal decentralization in education. Some scholars (e.g., Crook & Manor, 1998; Crook & Sverrisson, 2001) have also noted the positive effect of decentralization in poverty reduction. In Colombia, Faguet and Sanchez (2006) observed the positive role of decentralization to improve public school enrolment.

Examining the case of highly decentralized Canadian provinces for the period of 1979-1995, Rubio (2010) identified that health services decentralization in Canada has had positive influences in improving public health. In another study on the relationship between decentralization and human development index and decentralization, Sepulveda & Martinez-Vazquez (2010) noted the contribution of decentralization on improving the level of human development as measured by human development index. Martinez Vazquez (2011) also observed the noted impact of fiscal decentralization in educational outcomes.

Human poverty in Nepal

The notion of poverty is multidimensional and defining it is fraught with complexities. According to Nepal Living Standard Survey, Nepal's Poverty Head Count Index (PHCI) for FY 2009/010 is 25 percent in an average. In the urban area, this percentage is 16 and for rural

area it is 27 percent. The PHCI is the proportion of the population to the total population living below poverty line. Human Poverty Index (HPI) is another measure human poverty. According to UNDP (2014) 'the HPI measures average deprivation in the three basic dimensions of human development: a long and healthy life, knowledge, and a decent standard of living'. HPI consists of percentage of people not expected to survive beyond age 40, adult illiteracy rate, the percentage of people without access to safe water, percentage of malnourished children under age five, and deprivation in economic provisioning. This paper examines the effect of fiscal decentralization on all these four aspects of human poverty measures.

According to Nepal Human Development Report, 2014, Human Poverty Index for 2011 ranged from 16. 5 to 49.26 percent in sample districts. About 50 percent of the districts have HPI value below 34 percent. The mean HPI value is 33.88 (SD = 7.66). The coefficient of variation is 22.60 indicating that there is wider gap in human poverty among districts. Kaski has the lowest level of human poverty and Humla has the highest level of human poverty. Given the urban nature of high achiever districts, it seems that human poverty is more severe in rural areas than in urban areas. In this respect, urbanization could be an important process to development effectiveness. The government of Nepal should encourage expediting the process of urbanization for reducing human poverty as well. The districts in Kathmandu valley are in better position than the district of Far- West, Mid-West and some districts of Eastern Terai. This suggests the uneven distribution of development outcomes in Nepal. The government must correct this uneven course of development.

Table 1: Districts with highest and lowest HPI

High Achiever		Low Achiever	
District	HPI Value	District	HPI Value
Kaski	16.50	Humla	49.26
Lalitpur	19.18	Achaam	46.68
Bhaktapur	19.43	Rautahat	46.43
Jhapa	21.82	Bajhang	45.32
Kathmandu	22.45	Mugu	45.22
Parbat	24.62	Kalikot	45.20
Chitwan	24.80	Mahottari	44.75

Source: UNDP, 2014

Data and methodological aspects

This paper relies on the secondary sources of data to examine empirically the relationship of fiscal decentralization with human poverty. The dependent variable is human poverty index and the expenditure of district development committees is the independent variable. The data

on human poverty index are based on the Nepal Human Development Report 2014. Since the data were available for 2011, this study considers data on expenditures of DDCs for the fiscal year (FY) 2011/012. The independent variable for this study was yearly expenditures for DDCs for FY 2011/012. Data on the level of fiscal decentralization are log-transformed data. Log transformation is a strong tool in minimizing the influence of outliers on the average value of regression model. These data were collected from Annual Financial Report of Local Bodies' Fiscal Commission Secretariat (Local Bodies' Fiscal Commission Secretariat, 2012). To choose the random samples from data stored in Excel workbook, the RAND function in Excel was used to generate random numbers. The sample size was calculated using the power analysis software G*Power 3.1 (Faul, Fedfelder, Buchner, & Lang, 2009). The software suggested 55 samples for keeping power level (1-β) at .80 with medium size effect. However, this is a minimum required sample size for desired power. This paper relied on the web-based Raosoft software to calculate the optimum level of sample which suggested 63 as adequate samples.

Following econometric model is used to estimate the relationship:
$Y = \alpha + b\,(FD) + e$
Where,
Y = Level of human poverty index
α = Constant
b = Beta coefficient
FD = Level of fiscal decentralization as measured in amount of expenditures by DDCs

Data analysis

For examining the empirical relationship between fiscal decentralization and human poverty, following hypothesis was set:

H_0 : Fiscal decentralization does not reduce human poverty in the districts of Nepal.
H_1 : Fiscal decentralization reduces human poverty in the districts of Nepal .

$H_0: Yf\,(X_I) = 0$
$H_1: Yf\,(X_I) \neq 0$

Symbolically the casual alternative is that the human poverty index is the function of level of fiscal decentralization in the districts of Nepal. Before performing the regression analysis different assumptions of regression were checked.

Regression analysis assumes that there is liner relationship between dependent and independent variables (O, Donghue, 2012). Visual inspection of scatter plot shows that there is reasonable level of linearity relationship of level of fiscal decentralization with human poverty in 63 sample districts. The random displays of data points in the scatterplot of unstandardized residuals against the values of independent variables also provided further evidence of linearity.

Another assumption of regression analysis is that the residuals should be approximately normally distributed (Ho, 2014). This paper tested the normality assumption using Shapiro-Wilk (S/W) Test. According to this test, the data is assumed to be normally distributed if the ρ-value of this test is more than .05. Table 2 shows the result of S/W test of normality. Since the ρ-value is greater than .05, we can assume that the data are approximately normally distributed.

Table 2: Shapiro-Wilk test for normality of data (n=63)

Variable	*W*	*V*	*Z*	ρ
Residuals	0.96	1.39	0.71	.24

For triangulation purpose, the normality of residuals was checked on Stata using Skewness- Kurtosis (Jarqu-Bera) test. Table 3 shows the results of Jarque-Bera test of normality. Since ρ-value for skewness and kurtosis is more than .05, it is again assumed that the residuals are normally distributed. The visual inspection of histogram and normal probability plot also provides the evidence of normality of residuals.

Table 3: Skewness and Kurtosis (Jarque-Bera test for normality of data (n=63)

Variable	Pr (Skewness	Pr (Kurtosis)	λ^2	ρ
Residuals	0.97	0.05	4.05	.13

Regression analysis must satisfy the assumption of homogeneity of variance. The regression does not yield robust results if data on residuals are heteroskedastic. To detect the problem of heteroscedasticity, the paper checked this assumption using Breusch-Pagan / Cook-Weisberg test for Heteroscedasticity in Stata. Chi-square test was applied in this test. Since the *p*-value of this test was greater than .05, it is assumed that the data on residuals are not heteroskedastic, $\lambda^2 = .00$, $\rho = .10$.

Before conducting the regression analysis, a Pearson correlation coefficient was computed to determine whether there was statistically significant linear relationship between level of fiscal decentralization and human poverty index in the districts. The test was performed applying an α of .05. The Pearson correlation coefficient between these two variables was negative and statistically significant, *r* (63) = -.38 p < .001. A post-hoc power analysis was also performed to check the achieved power applying the G*Power software. G*Power is a statistical software to compute power of correlation and the effect size. It is also used to determine the minimum sample required for simple and multiple regression analysis. The power analysis was performed using an α of .05, $r^2 = .14$, *n* = 63, and one predictor. The

estimated effect size of G*Power was computed from $r^2 = .14$. The expected power was set at .80. G*Power analysis yielded the power value (1-β) of .88 with medium effect size (Cohen, 1992).

This means that there are 88 percent chances in the regression analysis to accept the true alternative hypothesis. In other words, there is only 12 percent chances to reject the true null hypothesis that there is no relationship between the level of fiscal decentralization and human poverty index. Since this value is more than the expected power value, i.e., .80, the power result is satisfactory. We can claim with 88 percent confidence that there is statistically significant relationship between dependent and independent variable. Figure 2 shows non-centrality distribution of power analysis. Non-centrality parameter λ = 8.38. More the value of non-centrality parameter λ, more the power (1- β).
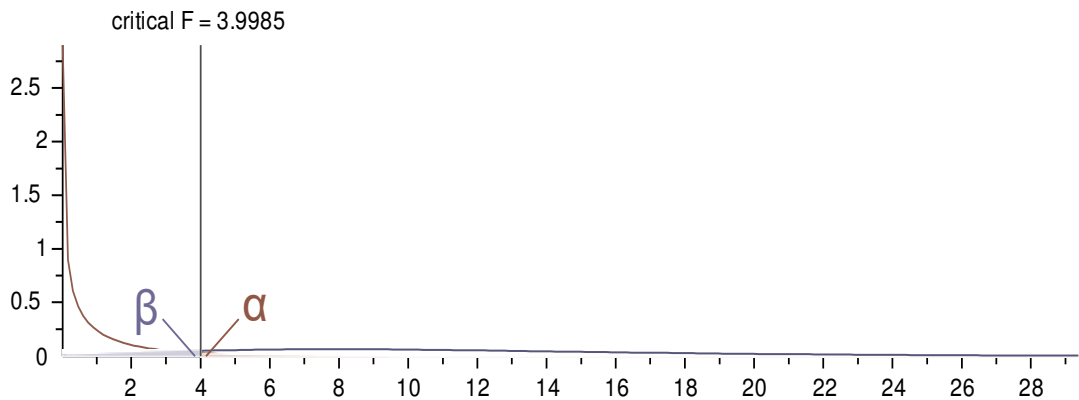

Figure 2. Central and non-central distributions for post-hoc power analysis to compute achieved power for the relationship between level of fiscal decentralization and human poverty index.

Table 4 shows the one –way analysis of variance (ANOVA) of human poverty index by level of fiscal decentralization in districts of Nepal. The ANOVA result shows that the fiscal decentralization significantly predicts level of human poverty in the districts. The model is significant, $F(1, 61) = 12.95$, ρ = .001. This result indicates that the coefficient of variance is not equal to zero suggesting that there was linear relationship between human poverty index and level of fiscal decentralization.

Table 4: One-way analysis of variance of human poverty index by level of fiscal decentralization in districts of Nepal (n = 63)

Model	SS	df	MS	F	ρ
Regression	523.83	1	523.83	12.951	.002
Residual	3115.77	61	51.08		
Total	3639.606	62			

Note. The model is significant at .05 level, two-tailed. MS stands for mean square and SS stands for sum of squares. Level of fiscal decentralization is the predictor variable and district human poverty index is the response variable.

The model summary presented Table 5 shows that Pearson's correlation coefficient (r) is -.38 and coefficient of determination r^2 is .14. The regression result indicates that the level of expenditures made by the District Development Committees could explain 14 percent of the variance in human poverty index in the districts. The standard error of the estimate or root mean squared error is 7.14. This is the standard deviation of the regression. The value is closer to zero, better the fit for the model. This value is not very high and indicating that the model is reasonable.

Table 5: Model summary on the relationship of fiscal decentralization to human poverty index

r	r^2	Adjusted r^2	F	ρ
-.38	.14	.13	10.26	.002

Note. The model is significant at .05 alpha level.

The t-values in the Table 6 test the hypothesis that the coefficient is different from zero. The test shows that level of fiscal decentralization is the significant predictor of the level of human poverty index. However, the contribution of fiscal decentralization in reducing the human poverty is only 14 percent. The low percentage of coefficient of determination indicates that level of fiscal decentralization is not the only factor that influences the level of human poverty in the districts. There could be many other factors that can contribute to reduce the human poverty in the district of Nepal. This could be due to investment made by other agencies such as District Education Offices and/or non-government sectors

Table 6: Regression results (dependent variable human poverty index) (n = 63)

Variables	*B*	*SEB*	*T*	ρ
Constant	193.54	49.86	3.88	.000
Level of Fiscal Decentralization	-8.26	2.58	-3.20	.002

Note. The model is significant at .05 alpha level. B stands for the unstandardized coefficient, SEB is standard error of estimated for unstandardized coefficient. The level of fiscal decentralization is the amount of expenditures made by DDCs.

Based on the result, the regression equation can be fit as:
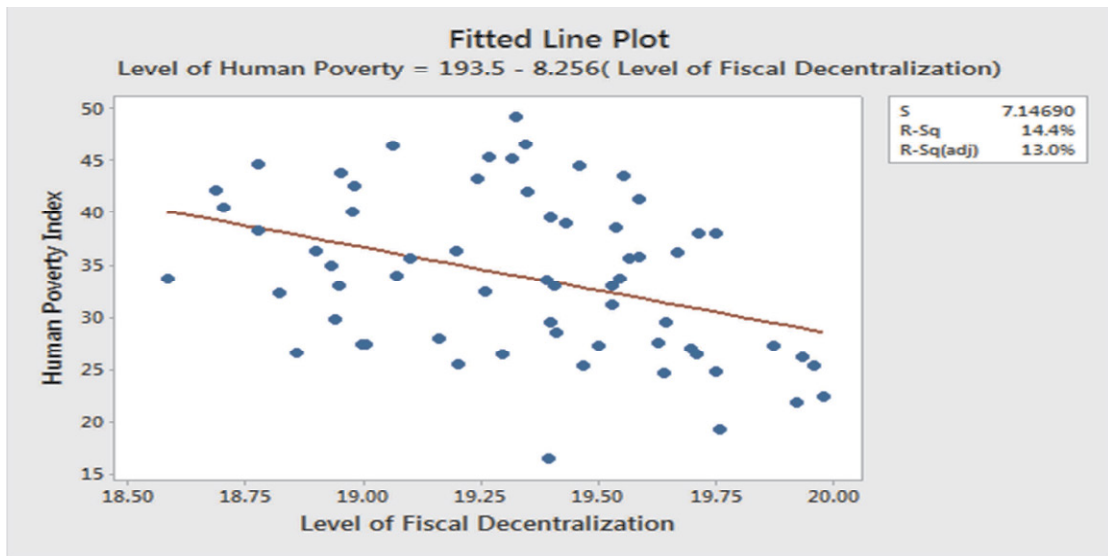Human Poverty Index = 193.54 - .8.26 (Log level of fiscal decentralization) + e

Figure 3: Regression model to predict level of human poverty index

Regression analysis was performed to examine the effect of fiscal decentralization on each component of human poverty index. Preliminary tests of linearity, the assumption of homoscedasticity, and normality were performed. The test results showed that all these assumptions were reasonable for each variable. The regression results show the insignificant relationship of level of fiscal decentralization with life expectancy, i.e., percentage of people not expected to survive beyond age 40, $F(1, 61) = 0.64$, ρ = .43). The regression analysis demonstrated the statistically significant and inverse relationship of level of fiscal decentralization to adult illiteracy rate, $t = -3.20$, ρ = .002. This indicates that increasing level of fiscal decentralization was associated with decreasing level of adult illiteracy. The coefficient

of determination was (r^2) .14. About 14 percent of the variation in adult illiteracy rate could be explained by the level of fiscal decentralization. This finding suggests that expenditure decentralization is supportive to improve better educational outcome, mainly in improving the adult literacy rate in the districts of Nepal. Government of Nepal should decentralize the task of adult literacy to local government.

The relationship between level of fiscal decentralization and percentage of people without access to safe water was found statistically insignificant $F(1, 61) = .14$, $\rho = .71$. The relationship between level of fiscal decentralization and percentage of malnourished children under age five was negative and statistically significant at 8 percent level, $t = -1.76$, $\rho = .08$. This result indicates that fiscal decentralization can contribute in addressing the issue of malnourishment of children. However, only about 5 percent variation of in child malnourishment could be explained by fiscal decentralization suggesting that fiscal decentralization has moderate effect ($r^2 = 4.81\%$). The relationship between fiscal decentralization and deprivation in economic provisioning was found statistically insignificant, $F(1, 16) = 0.31$, $\rho = 0.58$. It means that expenditure decentralization was not supportive to improve the economic wellbeing in the districts.

These findings hint that fiscal decentralization is a good mechanism to reduce the overall level of human poverty in the districts. Fiscal decentralization is an important mechanism to reduce adult illiteracy and child malnourishment. Local bodies in Nepal have invested substantial resources of primary education. Similarly, local bodies are implementing child friendly local governance in the country. Local bodies have to allocate at least 10 percent of it block grant for capital expenditure to the development of children. There might be implications of this investment for these results.

Fiscal decentralization was not found supportive to reduce deprivation in economic provisioning, to improve life expectancy, and to decrease the percentage of people without access safe water. The results suggest that Government of Nepal should focus not only on quantity of sanitation and drinking water provisioning projects, but also on the quality of the services for people, though there are many agencies involved in providing drinking water services at local level.

Summary and conclusion

This paper empirically examines the contribution of fiscal decentralization to reduce the human poverty in districts of Nepal. The results of regression analysis suggest that the level of fiscal decentralization could explain about 14 percent of variance on human poverty. A significant inverse relationship of fiscal decentralization to human poverty index is observed. We can infer on that fiscal decentralization has the role to reduce human poverty in Nepal. It urges for devolving spending and revenue generating authority to the sub-national governments. The local governments spending authority would relate to the state of human poverty in Nepal.

Fiscal decentralization was found statistically significant to reduce adult illiteracy rate and percentage of malnourished children under age five. Statistically, fiscal decentralization was not effective to increase life expectancy, decrease the percentage of people without access to safe water, and reduce deprivation in economic provisioning. The results indicated that fiscal decentralization is effective in education and child development but not in health and income related development outcomes.

References

Alam, M., & Scott, Z. (2011). *Resource guide on decentralization and local government.* London: Commonwealth Secretariat.

Asian Development Bank. (2001). Managing local government expenditure and fiscal decentralization. In S. Schiavo-Campo, & P. Sundaram (Eds.), *To serve and to preserve: Improving public administration in a competitive world* (pp. 247-314). Manila: Asian Development Bank.

Bradhan, P., & Mookherjee, D. (2000). Capture and governance at local levels and national levels. *American Economic Review.* 90, 135-139.

Boadway, R., & Shah, A. (2007). Overview. In R. Boadway, & A. Shah (Eds.), *Intergovernmental fiscal transfers: Principles and practice* (pp. XXVII-XLII). Washington, D.C.: The World Bank.

Boex, J. (2001). *An introductory overview of intergovernmental fiscal relations.* Georgia: Andrew Young School of Policy Studies, Georgia State University.

Buchanan, J. (1965). An economic theory of clubs. *Economics.* (32), 1-14.

Cohen, J. (1992). A power primer. *Psychological Bulletin, 112*, 155-2159. doi: 0.1037/0033-2909.112.1.155

Crook, R. C., & Manor, J. (1998). *Democracy and decentralization in South Asia and West Africa: Participation, accountability and performance.* Cambridge: Cambridge University.

Crook, R. C., & Sverrisson, A. S. (2001). *Decentralization and poverty alleviation in developing countries: A comparative analysis or is West Bengal unique?* Brighton, UK: Instutute of Development Studies.

Ebel, R. D., & Muwonge, A. (2014). Intergovernmental finances in a decentralized world. In C. Farvacque-Vitkovic, & M. Kopayni (Eds.), *Municipal finances: A handbook for local governments* (pp. 1-40). Washington, D.C.: The World Bank.

Faguet, J.-P. (2004). Does decentralization increase government responsiveness to local needs?: Evidence from Bolivia. *Journal of Public Economics.* 88 (3-4), 867-893.

Faguet, J.-P., & Sanchez, F. (2006). *Decentralization and access to social services in Colombia.* Center for Latin American Studies. Berkeley, CA: University of California.

Freire, M. E. (2014). Managing external resources. In C. Farvacque-Vitkovic, & M. Kopanyi (Eds.), *Municipal finances : A handbook for local governments* (pp. 325-378).

Washington D.C.: The World Bank.

Freire, M. E., & Garzon, H. (2014). Managing local revenue. In C. Farvacque, & M. Kopanyi (Eds.). Washington, D.C.: The World Bank.

Ho, R. (2014). *Handbook of univariate and multivariate data analysis with IBM SPSS.* London, UK: Taylor & Francis Group.

Kalirajan, K., & Otsuka, K. (2012). Fiscal decentralization and development outcomes in India: An exploratory analysis . *World Development*, 1511-1521.

Litvack, J., & Seddon, J. (Eds.). (1999). *Decentralization briefing notes.* Washington, D.C.: World Bank Institute

Local Bodies Fiscal Commission Secretariat. (2012). *An analysis report of minimum conditions and performance measures of local bodies in Nepal, 2015.* Kathmandu: Ministry of Local Development.

Markussen, T. (2006). *Inequality and party capture: Theory and evidence from South India.* Discussion Paper, University of Copenhagen, Department of Economics, Copenhagen.

Martinez-Vazquez, J. (2011). *The impact of fiscal decentralization: Issues in theory and challenge in practice.* Manila: Asian Development Bank.

Martinez-Vazquez, J., & Sepulveda, C. F. (2011). The consequences of fiscal decentralization on poverty and income inequality. *Enviornment and Planning C: Government and Policy* . 29, 321-343.

Martinez-Vazquez, J., Lago-Penas, S., & Sacchi, A. (2015). *The impact of fiscal decentralization: A survey.* Georgia: Andrew Young School of Public Policy, Gerogia State University.

Martinez-Vazquez. (2001). *Intergovernmental fiscal relations and the assignment of expenditure responsibilities.* Georgia: Andrew Young School of Policy Studies, Georgia State University.

Ministry of Federal Affairs and Local Development. (2015). *Annual progress report for fiscal year 2014/015.* Kathmandu: Ministry of Federal Affairs and Local Development.

Ministry of Finance. (2015). *Economic survey: Fiscal year 2012/013.* Kathmandu: Ministry of Finance.

Miller, G. J., & Hildreth, W. B. (2007). Local debt management. In A. Shah (Ed.), *Local public financial management* (pp. 109-159). New York, NY: The World Bank.

Musgrave, R. A. (1959). *The theory of public finance* . New York: McGraw Hill.

O'Donoghue, P. (2012). *Statistics for sports and exercise studies: An introduction.* Oxon, UK: Routledge.

Oates, W. E. (1972). *The Political economy of fiscal federalism*. Lexington, MA: Lexington Books.

Qian, Y., & Roland, G. (1998). Federalism and the soft budget constraint. *American Economic Review.* 88 (5), 1143-1162.

Rubio, D. J. (2010). The impact of decentralization of health services on health outcomes: Evidence from Canada. *Applied Economics.* 43 (26), 3907-3917.

Sen, A. (2000). *Development as freedom.* New Delhi: Oxford Univesity Press.

Shah, A. (2007). Introduction: Principles of fiscal federalism. In A. Shah (Ed.), *The practice of fiscal federalism: Comparative perspectives.* 3-42: McGills-Queen's University Press.

Shah, A., & Shah, S. (2006). The new vision of local governance and the evolving roles of local governments. In A. Shah (Ed.), *Local governance in developing countries* (pp. 1-50). Washington, D.C.: The World Bank.

Sow, M., & Razafimahefa, I. F. (2015). Fiscal decentralization and the efficiency of public service delivery. *IMF Working Paper, WP/15/59*, 1-29.

Subedi, S. L. (2014). *Fiscal decentralization in Nepal: A municipal perspective.* New Delhi: Adarsha Book.

The World Bank. (2000). *Entering the 21st century: World Development Report 1999/2000.* Washington, D.C.: The World Bank.

Tiebout, C. (1956). A pure theory of local expenditure. *Journal of Political Economy.* 64 (5), 416-24.

United Nations Human Development Programme. (2014). *Nepal human development report, 2014.* Kathmandu: Author.

Vista-Baylon, H. I. (2001). Decentralization: What, when, and how. In S. Schiavo-Campo, & P. Sundaram (Eds.), *To serve and to preserve: Improving public administration in a competitive world.* Manila 2001: Asian Development Bank.

Weingast, B. R. (1995). The economic role of political institutions: Market-preserving federalism and economic development. *The Journal of Law, Economics, & Organization.* 11 (1), 1-31.