



Munich Personal RePEc Archive

## **Decentralization and Social Capital in Indonesia**

Qibthiyyah, Riatu M. and Zen, Fauziah and Ledi, Trialdi  
and Dita, Astrid

Department of Economics, University of Indonesia, Department of  
Economics, University of Indonesia, Department of Economics,  
University of Indonesia, Graduate School of Economics, University  
of Indonesia

2011

Online at <https://mpra.ub.uni-muenchen.de/95857/>

MPRA Paper No. 95857, posted 11 Sep 2019 05:44 UTC

# **Decentralization and Social Capital in Indonesia**

Riatu M. Qibthiyah

*Department of Economics, University of Indonesia*

Fauziah Zen

*Department of Economics, University of Indonesia*

Ledi Trialdi

*Department of Economics, University of Indonesia*

Astrid Dita

*Graduate School of Economics, University of Indonesia*

## **Abstract**

Indonesia has experienced more than 10 years of decentralization. Starting in 2001, and called as “Big Bang” decentralization, various types of decentralization have been occurring. In the time being, the causality between decentralization and economic growth seems to be ambiguous (Fauziah, 2007). On the other hand, social capital is a new approach to explain social relationship within the population in a region. Higher social capital, i.e. stronger trust, and network within the population in a region, is viewed to have positive effects on economic growth (Beugelsdijk & van Schaik, 2005; Chou, 2006). In a nation endowed with diverse characteristics of population and culture, regions across Indonesia may have different social capital strength. Furthermore, it is not yet clear whether decentralization policy translates to strengthening social capital. Here, we investigate the impact of decentralization on regional social capital and evaluate how types of decentralization affect social capital differently.

**Keyword:** Social Capital, Fiscal Decentralization, Indonesia Decentralization.

**JEL Codes:** H77, Z13

## Introduction

Decentralization policies have been adopted in many countries with degree and context of the institutions that vary across countries (Bird 1999). Studies on impact of decentralization, specifically in the case of fiscal decentralization, mostly exploring how fiscal decentralization may improve society's welfare, referred to economic growth or the improvement in society's income distribution. Few studies evaluate impact of fiscal decentralization on society network, an intermediary condition, which may become necessary on the improvement of society's welfare.

Social capital is a network externality rooted in Indonesia, with so called theme *Gotong Royong*. The 1997 economic crises would likely lead to a much higher casualties in the absence of society networks (Sujarwoto and Tampubolon 2011). In the case of regions, there is a popular belief that recovery construction period after 2007 quake in Yogyakarta which is quite fast is partly benefited from high social capital in that region. Meanwhile, despite the degree of tsunami Aceh that is much higher in comparison of any other disaster across regions in Indonesia, and thus existence of large international and domestic support on recovery efforts, there are still views that recovery constructions are less optimal (Telford and Cosgrave 2007). In this case, in a nation endowed with diverse characteristics of population and culture, regions across Indonesia may have different social capital strength.

## Literature Review

New growth theory suggests unorthodox variables—beside the well-known capital, labor, and technology—also hold important role in economic growth (Whiteley, 2000). One of the variables is the social capital. The seminal literature of Putnam, et al. (1993), said that social capital refers to features of social organization, such as trust, norms, and networks, which can improve the efficiency of society by facilitating coordinated actions. Although it has been recognized in social sciences, Putnam's definition of social capital has not been canonized. Moreover, social capital is elusive, and incorporates many aspects.

Hence, the working mechanism of social capital on economic growth could be explained through many channels, for example: (i) fostering innovation (Akcomak and Bas ter Weel, 2009); (ii) human capital formation (Coleman, 1988), namely: through productive consumption (Dinda, 2008), through education (Bjørnskov, 2009), through higher (mental) health (Kennelly et al., 2003; Miller et al., 2006); (iii) higher voluntary provision of public good (Leonard *et al.*, 2010). Chou (2006) generalized the relationship of social capital on growth into three channels—through human capital, financial development, and innovation.

Whiteley (2000), using Solow model, examined the role of social capital on economic growth, in a sample of 34 four countries over the period 1970-1992. The results suggested that social capital has an impact on growth which is at least as strong as that of human capital or education. Beugelsdijk and van Schaik (2005) confirmed this result through a cross-sectional study of 54 European regions. There is evidence that growth differentials in European regions are positively related to social capital measured as associational activity.

However, Temple (2001) concluded—based on his study on the effects of social capital and education in OECD countries—that it is more difficult to draw a conclusion for policy recommendation regarding the social capital, for it would end with standard recommendations such as attempting to eliminate corruption and improve the legal system. Routledge and von Amsberg (2002) agreed, even though they have built extensive prisoner’s dilemma models of social capital through trading to obtain relevant policy recommendations.

On the other hand, decentralization is long perceived as booster in public sector efficiency in service delivery, since local governments are closer to the people and hence better equipped to extract information on local preferences and needs at lower costs (de Mello, 2000). Moreover, accountability and transparency in policymaking can be enhanced by bringing expenditure assignments closer to revenue sources and hence to the electorate (Tanzi, 1999). To some sense, it is likely that decentralization, or at least, government performance, is related with the social capital of its region. Knack (2002) found that aspects of social capital that are conceptually identified with generalized reciprocity (such as social trust, volunteering, and census response) are associated with better governmental performance, while the aspects of social capital identified with social connectedness (including activity in associations and informal socializing) are unrelated to governmental performance.

The seminal work of Putnam, *et al.* (1993) had associated the performance of regional government in different Italian regions with "civic involvement," whereby social capital-rich regions outperform their social capital-poor counterparts, despite the funds transferred to the latter to finance economic growth and development programs. His study inspired latter studies on the relationship between social capital, decentralization, and growth. De Mello (2000) studied the effect of fiscal decentralization on the social capital formation, using indicators of confidence in government, civic cooperation, and associational activity from the World Values Surveys data covering 29 market economies in 1980-81 and 1990-91. The results of the cross-sectional regression suggested that there is an association between fiscal decentralization and social capital. Fiscal decentralization may boost social capital, while the sources of finance for greater subnational expenditures were also found to affect social capital. This, to some extent, confirmed Knack and Keefer (1997).

## **Measuring Social Capital**

Social capital might be defined at the macro or micro level (Staveren, 2000). At the macro level, the World Bank Social Capital Initiative describes social capital as “the institutions, the relationships, the attitudes and values that govern interactions among people and contribute to economic and social development” (World Bank, 1998). At the micro level, Gary Becker (1996) has described social capital as a collection of social values, like recognition and prestige, which individual economic actors hold as non-material, endogenous preferences. Individuals are assumed to choose the type and level of social capital that maximizes their expected utility.

Staveren (2000) argued that social capital was not generated in the financial markets, nor was it generated at all by the state, through social policy, market regulation, or any other form of central policy. The two interaction mechanisms for the allocation of scarce resources as they operate in the market and the state—exchange and redistribution—are inadequate to bring about the social values and accompanying social

relationships that underlie social capital. The only mechanism that can explain the generation of social capital is through gift in the economy—represented by economic actors’ mutual gift giving in terms of labor time, monetary and non-monetary resources, contributing to human wellbeing. Hence, the social capital is accumulated in the *care economy*, instead of in the state or market economies.

**Data**

Social capital data come from Susenas Household survey module. Central Bureau of Statistics issue module household survey of social and culture every three years, and in this case, we use 2009 module survey. As also viewed by previous studies, a composite of social capital could be identified as network broadly referred with association of non-formal or formal institution.

From 18 questions stated in the questionnaires’ module, we use the following questions to construct indicator of social capital that relates to formal institution and non-formal institution.

**Table 1.** Questionnaire Questions on Social Capital Variables

<b>Formal Institutions</b>		<b>Non-Formal Institutions</b>	
Trust government policies improve social welfare		Willingness to help (lend money to) neighbor that needs immediate help (for medical care or school):	
Very trust	(5)	Very willing	(5)
Trust	(4)	willing	(4)
Less trust	(3)	Less willing	(3)
Do not trust	(2)	Do not willing	(2)
Do not care	(1)	Do not care	(1)
Do not know	(0)	Do not know	(0)

Source: (translated from) Susenas questionnaires module of social capital (BPS 2009).

Previous studies have discussed various indicators of social capital, and in which there may and may not alignment across those indicators (Putnam *et al.* 1993). Thus, exploring constructions and relationship of social capital indicators is an attempt to improve the estimation model.

Questions stated in Table 1 are intended to head of household while our study priority is on evaluating the probable effect of fiscal decentralization which is on local government level data. In this case, we could aggregate these individual social capital data into a local government unit level, and thus representing the extent of social capital in the region (local government). Referring to social capital questions in Table 1, we measure the percentage of population that answer choice of (4) or (5) in each region. Meanwhile on the household unit, social capital variable would be set as simple categorical data. In this case, individual

or head of household with answer choice of (4) or (5) of the question would be assigned a value of 1 while other answers would be assigned as zero.

On decentralization policies, we use the following indicators of decentralization: 1) measure of fiscal decentralization, 2) political decentralization, and 3) territorial decentralization. Following previous studies on measure of fiscal decentralization (Dincer 2010, de Mello 2004, Akai and Sakata 2002), we use expenditure decentralization while territorial decentralization is identified by the status of local government, whether it is proliferated or non-proliferated local governments. In the case of political decentralization, the construction of data would only permit us to use variables that are align with cross-section estimation model which is not the case of political decentralization.

### **Social Capital and Fiscal Decentralization: Model Estimations**

Given the design of the data, we use Tobit regression local government unit of estimations. Meanwhile, logit estimations are conducted for household estimations. The following are estimation models that we use:

$$(1) \text{ Social Capital}_p = \beta_1 + \beta_2 \text{ Index of Decentralization}_p + e_i \sum \beta_q \text{ set of covariates}_p + e_p$$

$$(2) \text{ Social Capital}_i = \beta_1 + \beta_2 \text{ Index of Decentralization}_p + e_i \sum \beta_q \text{ set of covariates}_i + e_i$$

where:

i =households

p=municipality/city

q=3, ..., n

Cross-section estimation model using municipality level as observations units aim to explore variation in social capital among regions in Indonesia and how the degree of decentralization and region characteristics may affect the depth of region social capital. To further explore the consistency of the findings, we also construct estimations of household unit level. Aggregate estimations on local government level may only capture what determines variation in the extent of social capital, but not on the production of social capital. In this case, micro-level estimations could explore determinants of social capital that also consider the various degree of decentralization in the region affecting household social capital.

Our sample use 319 of local governments due to various missing variables in the explanatory variables. Based on BPS code of municipality for the year 2009, we match code of municipality used in Susenas module survey to the name of municipality as stated in BPS list of municipalities.

## Results

Our findings come from local government estimation level and household level. Table 2 presents findings from local government estimations level. From Table 2, to some extent there is a positive relationship between index of fiscal decentralization and government trust. Nonetheless, from this estimation model at municipality level, the relationship between degree of expenditure decentralization and government trust is not quite strong. Meanwhile, we do not evidence that territorial decentralization has effect on government trust.

In terms of other explanatory variables, we find negative relationship between Gini coefficient and government trust implying that high disparity or inequal income distribution tends to associate with lower government trust. Meanwhile, unemployment rate has no effect on government trust. We also find that education tends to associate negatively with government trust. In this case, we measure education variable as percentage of population with higher degree of education.

**Tabel 2.** Estimation Result of Social Capital measured as General Government Trust: Local Governments Estimation Level

<b>Dependent: Formal Institution Social Capital</b>	<b>Model 1</b>		<b>Model 2</b>	
<b>Expenditure Decentralization</b>	0.001	*	0.001	*
<b>(Ln) Number of Kelurahan/Village</b>	0.004		0.002	
<b>Proliferation Index</b>	-0.001		0.001	
<b>(Ln) Population</b>	0.002			
<b>Gini Coefficient</b>	-0.048	*	-0.053	**
<b>(Ln) Unemp</b>			0.002	
<b>Percentage of Population with Higher Education</b>			-0.179	***
<b>Ethnolinguistic Index</b>	-0.002		0.000	
<b>(Ln) Expenditure per Capita</b>	-0.105	***	-0.076	***
<b>(Ln) Development Expenditures</b>	-0.002		-0.005	
<b>Constant</b>	2.509	***	2.194	***
<b>Log Likelihood</b>	583.380		588.700	
<b>No. of Obs</b>	317		317	

Notes: \*\*\* 1% significance, \*\* 5% significance, \*10% significance

From local government estimation level, given a 10% significance level, the relationship of fiscal decentralization on government trust seems to be quite weak. Exploring other type of social capital, Table 3 presents results that use dependent trust to society which represents social capital from non-formal institution as dependent variable. From Table 3, we still find a positive relationship between degree of

fiscal decentralization and social capital. Furthermore, a significance level on the coefficient of fiscal decentralization is relatively high, a 1% significance level.

In regard to other explanatory variables, Table 3 shows a positive relationship between population and this non-formal institution social capital. Higher population level tends to improve trust to society. From result in Table 3, unemployment is also believed to have effect on the extent of society trust. Higher unemployment rate tends to decrease trust to society. Meanwhile, in contrast to formal institution social capital, there is no evidence on the effect of income distribution to non-formal social capital.

**Table 3.** Estimation Result of Social Capital measured as Trust to Society: Local Governments Estimation Level

<b>Dependent: Non-Formal Institution Social Capital</b>	<b>Model 1</b>	<b>Model 2</b>
Expenditure Decentralization	0.548 ***	0.496 ***
(Ln) Number of <i>Kelurahan</i> /Village	2.733 ***	1.642
Proliferation Index	-1.941	-1.338
(Ln) Population		4.169 ***
Gini Coefficient	-3.350	-3.711
(Ln) Unemployment	-0.692	-3.069 ***
Percentage of Population with Higher Education		-4.869
Ethnolinguistic Index	-5.007 **	-4.127 *
(Ln) Expenditure per Capita	-4.771	-2.993
(Ln) Development Expenditures	-4.483 ***	-4.799 ***
Constant	196.857	173.832 ***
<i>Log Likelihood</i>	-1202.72	-1199.190
<i>No. of Obs</i>	317	317

Notes: \*\*\* 1% significance, \*\* 5% significance, \*10% significance

Table 4 and Table 5 provide household level estimations results on social capital. As previous findings treat social capital indicators as independent, there is also strand of literature that tries to link relationship across social capital indicators, in this case between formal and non-formal institution social capital (Adam and Roncevic 2003; Onyx and Bullen 2001; Sobels et al. 2001). While estimations model in Table 4 only include explanatory variables of decentralization, estimations in Table 5 include other measures or indicators of social capital in addition to measures of decentralization. Overall, the results from household estimation strengthened previous findings that come from estimations at local government level.

**Table 4.** Household Estimation Result of Social Capital: Formal and Non-Formal Institution

<b>Dependent: Social Capital</b>	<b>Society Trust</b>		<b>Government Trust</b>	
Expenditure Decentralization	0.016	***	0.004	**
(Ln) Number of <i>Kelurahan</i> /Village	0.000	***	0.001	***
Proliferation Index	-0.043	***	0.082	***
Ethnolinguistic Index	-0.393	***	-0.430	
Constant	-0.609	***	2.167	***
<i>Log Likelihood</i>	-		-68,629	
<i>No. of Obs</i>	132,662		205,617	

Notes: \*\*\* 1% significance, \*\* 5% significance, \*10% significance; we stated interchangeably term of formal institution social capital and government trust as well as term non-formal institution social capita and society trust.

**Table 5.** Household Estimation Result of Social Capital: Exploring social capital indicators

<b>Dependent: Social Capital</b>	<b>Society Trust</b>		<b>Government Trust</b>	
Expenditure Decentralization	0.017	***	0.004	**
(Ln) Number of <i>Kelurahan</i> /Village	0.000	***	0.000	***
Proliferation Index	-0.036	***	0.173	***
Ethnolinguistic Index	-0.317	***	-0.040	
<i>Trust financial management to RT/RW</i>	0.135	***	0.860	**
<i>Trust financial management to Kelurahan</i>	0.110	***	1.206	***
<i>Trust financial management to community based organization</i>	0.362	***	0.463	***
Constant	-1.093	***	0.530	***
<i>Log Likelihood</i>	-130,809		-57,377	
<i>No. of Obs</i>	205,617		205,617	

Notes: \*\*\* 1% significance, \*\* 5% significance, \*10% significance

## Conclusion

Our study finds a somewhat positive relationship between the extent of fiscal decentralization and government trust that are also supported by other studies, mostly case studies of developed countries (de Mello 2004, Dincer 2010), implies that fiscal decentralization could also induce a positive impact to society in the case of Indonesia as developing country. Nonetheless, there are inconclusive results on the effect of territorial decentralization on social capital. In micro level, individual in a proliferated local

government is more likely to have higher trust to governments. But this result is not confirmed from a more aggregated estimation result.

Our study contributes to the strand of literature of fiscal decentralization that attempt to explore, how decentralization policies in overall, may affect the building of the institution (. In comparison to these existing studies (de Mello 2004, Dincer 2011), we have differentiated measures of decentralization and social capital as well as exploring the construction of social capital. We have also examined the consistency of the relationship between decentralization and social capital by exploring not only through local government estimation level but at household level.

## References

Akcomak, I. Semih, and Bas ter Weel (2009). Social capital, innovation and growth: Evidence from Europe. *European Economic Review*, 53, pp. 544–567.

Becker, Gary (1996). *Accounting for Tastes*. Cambridge: Harvard University Press.

Beugelsdijk, Sjoerd, and Ton van Schaik (2005). Social capital and growth in European regions: an empirical test, *European Journal of Political Economy*, Vol. 21, 301–324.

Bjørnskov, Christian (2009). Social trust and the growth of schooling, *Economics of Education Review*, 28, pp. 249–257.

Bryan R. and von Amsberg, Joachim (2002). *Social Capital and Growth*. Tepper School of Business. Paper 419. Routledge, <http://repository.cmu.edu/tepper/419>

Chou, Yuan K. (2006). Three simple models of social capital and economic growth. *The Journal of Socio-Economics*, 35, pp. 889–912.

Coleman, James S. (1988). Social Capital in the Creation of Human Capital. *The American Journal of Sociology*, Vol. 94, Supplement: Organizations and Institutions: Sociological and Economic Approaches to the Analysis of Social Structure, pp. S95-S120.

Francois, Patrick, and Jan Zabojsnik (2005). Trust, Social Capital, and Economic Development. *Journal of the European Economic Association*, Vol. 3, No. 1, pp. 51-94

Fauziah (2007). Fiscal Decentralization and Economic Growth: Evidence from Indonesia. *Economics and Finance in Indonesia*, 55 (2), 109-134.

Kennelly, Brendan, O’Shea, Eamon, and Eoghan Garvey (2003), Social capital, life expectancy and mortality: a cross-national examination. *Social Science & Medicine*, 56, pp. 2367–2377.

Knack, Stephen (2002). Social Capital and the Quality of Government: Evidence from the States. *American Journal of Political Science*, Vol. 46, No. 4, pp. 772-785.

Knack, Stephen, and Philip Keefer (1997). Does Social Capital Have an Economic Payoff? A Cross-Country Investigation. *The Quarterly Journal of Economics*, Vol. 112, No. 4, pp. 1251-1288

Leonard, T., Croson, R.T.A., Angela C.M. de Oliveira (2010). Social capital and public goods. *Journal of Socio-Economics* 39, 474–481.

Luiz de Mello (2000). Can Fiscal Decentralization Strengthen Social Capital? IMF Working Paper Fiscal Affairs Department WP/00/129.

Miller, Douglas L., Scheffler, Richar, Lam, Suong, Rosenberg, Rhonda, and Agnes Rupp (2006), Social Capital and Health in Indonesia. *World Development* Vol. 34, No. 6, pp. 1084–1098.

Putnam, R., Leonardi, R., Nanetti, R.Y., (1993). Making Democracy Work. Princeton University Press, Princeton, NJ.

Soumyananda, Dinda (2008). Social capital in the creation of human capital and economic growth: A productive consumption approach. *Journal of Socio-Economics*, 37, pp. 2020–2033.

Staveren, Irene Van (2000). A Conceptualization of Social Capital in Economics: Commitment and Spillover Effects. November 2000. Working Paper Series No. 324. Institute of Social Studies.

Tanzi, Vito (1999). "The Changing Role of the State in the Economy: A Historical Perspective," in Fiscal Decentralization, Inter-Governmental Fiscal Relations and Macroeconomic Governance, ed. by Luiz R. de Mello and Kiichiro Fukasaku (Paris: Organization for Economic Cooperation and Development).

Telford, J., and J. Cosgrave (2007). The international humanitarian system and the 2004 Indian Ocean earthquake and tsunamis. *Disaster*, 31 (1), 1-28.

Temple, Jonathan (2001). Growth effects of education and social capital in the OECD countries. Department of Economics, University of Bristol, Discussion Paper No. 01/250.

Whitely, Paul F. (2000). Economic Growth and Social Capital, *Political Studies*, 48: 443-466.

World Bank (1998). The Initiative on Defining, Monitoring and Measuring Social Capital. Overview and Program Description. Social Capital Initiative, Social Development Family, Working Paper No. 1. Washington D.C.: World Bank.