Does Corruption Effects on Social Sector in SAARC Region?

Hina Kiran¹, Saeeda Rehman², M. Naveed Iftikhar³ and Rabia Mir⁴

Abstract
The objective of this paper is to assess the impact of corruption on social sector in SAARC region countries using the panel data of four member countries between the periods 1991-2010. We use corruption, tax revenues and FDI as independent variable and education index as dependent variable. The paper uses simple Ordinary Least Square (OLS) technique as methodology for empirical findings. The analysis clearly indicates that corruption control has a positive relation with education. As corruption is controlled provision of services of education to social sector would be better. As well as tax revenues and foreign direct investment is also positively related to education sector. So to make better provision of education services to social sector and to increase adult literacy rate and gross enrollment ratio corruption should be controlled and expenditures on education sector by tax revenues should be increase because it will lead to development.

1. Introduction
In any economy social sector is characterized by market failures and to correct these type of failures government intervene by providing public services and by financing. It is considered that corruption emerges through the government intervention. Corruption is growing nationally and internationally and it is impacting social sector as well as geography, economic level and politics and through this impacting human beings.

The term corruption can be defined as government officials use their authority for private gain in designing and implementing public policies. It is emerging in our every system like cancer. “Corruption hurts the poor disproportionately by diverting funds intended for development, undermining a government’s ability to provide basic services, feeding inequality and injustice, and discouraging foreign investment and aid” (Kofi Annan, in his statement on the adoption of the United Nations Convention against Corruption by the General Assembly, NY, November 2003). Corruption has different impacts on countries by effecting different variables. Poor governance and corruption are major hurdles in the way of education right and to reaching the millennium development goals (MDGs). For school entrance the illegal payments and hidden costs shows the high drop-out rates and low school enrolment ratio in the developing countries. Corruption destroys the incentives and market signals and slows down the economic growth by misallocation of resources and converts the human talent into rent seeking activities instead productive activities. “Corruption is a major drain on the effective use of resources for education and should be drastically curbed” (Drafting Committee of the World Education Forum, Dakar, April 2000). On the basis of this view it can be seen that it adversely affect social sector by shifting the public spending on education and health facilities from them.

Various studies shows that corruption most likely to arise in the tax revenue collection areas due to inequality, bad awareness of rights and bad governance it negatively effects the tax administration and divert the expenditures on social services.

¹ Department of Economics, University of Gujrat, Pakistan, Email: hinachaudhri@hotmail.com
² Department of Economics, University of Gujrat, Pakistan, Email: diviamirza@yahoo.com
³ Governance Specialist, Ministry of Finance, Islamabad, Pakistan
⁴ Department of Economics, University of Gujrat, Pakistan, Email: rabia_mir19@yahoo.com
Globalization affects the government expenditures. In the absence of international trade government will focus on decreasing expenditures on the non productive projects. While studies also suggests that the economies which are more open to trade or which gets foreign direct investment have larger public sectors and their citizens demand social security to avoid external risks.FDI improves overall human welfare by their contributions such as employment creation, skill development, income generation etc. 

One of the main usages of tax revenue is to fund education. Studies show higher income tax revenues encourages people to acquire more human capital. Corruption exists in all countries but it is most widespread in low income countries than high income countries because in these countries accountability is generally weak and these are usually highly regulated economies which give rise to large monopoly rents. In the world there are many studies on corruption in different countries on economic growth and development as well as on effects of corruption on different indicators but there was a lack of proper study on the effects of corruption on the provision of basic services from the public sector to the social sector in the SAARC region countries. We find this gap in our study so in this paper we want to check the impact of corruption on government provision of services to the social sector in SAARC region countries. For this we took 4 countries Bangladesh, India, Pakistan and Srilanka on the basis of availability of data. We used to measure social sector through education index. Here we will also check impact of tax revenues the public sector variable and the foreign direct investment an external sector variable on education index.

2. Significance
The study of corruption is necessary in this sense that in mostly countries it is one of the greater obstacles to development in public and private sector. And through the elevation of corruption public provision of basic services to social sector can be made better and efficient. Through this study many deficiencies and inequalities in public sector can be seen in SAARC region countries and it would be helpful to combat with growing problems created by corruption.

3. Literature Review
Shaw (2007) measure the effects of educational corruption on growth, educational attainment and education wage premiere on the basis of Fershtman et al. (1996) framework. Quality of education determines the future labor force and it will impact the innovation and productivity of a country. Study develop an overlapping generation model and found that due to educational corruption misallocation of talent occurs and it negatively impacts growth and educational attainment and positively impacts education wage premiere. Lawal (2007) explains the influence of corruption on development in Africa different challenges for political and economic change. In those countries where institutions are weak corruption is worse there. It badly affects the delivery of public goods and services and through this it erodes governmental legitimacy. In this study author analyzes different economic and political aspects of corruption in Africa and their impact on African development. Findings of this study implies that corruption is negatively impacting on development of Africa and if long time reforms implemented sincerely then it would be beneficial for its development and anti corruption activities.

Gupta (2000) explains that Corruption derives up the price and lowers the level of government services and output including the provision of education services and health care financing. In this study author measures that how can corruption impact the social services by using a theoretical model by Shleifer and Vishny (1993) by taking 128 advanced and developing countries data. Study apply a simple OLS on variables and found that by reducing
corruption there would be a decrease in child and infant mortality rates, percent of low-birth weight babies and primary dropout rates. Mo (2000) explains new perspective on the role of corruption in economic growth and also explains the impact of corruption on the growth and importance of the transmission channels. In this study author measure the empirical analysis of corruption by investigating the relationship between investment and corruption for 58 countries. 2SLS estimation technique were used and finds the most important channel through which corruption affects economic growth is political instability.

Mehmood and Sara discussed the efficiency of provinces in the provision of health and educational services and their impact on human development. Fiscal decentralization is the basic tool for the efficient provision of service delivery. The effectiveness of fiscal decentralization can increase the human development and also strengthens the federation. Decentralization in health and education will lead to the involvement of citizens in decision-making and make local service provider more accountable. Sanz & Francisco (2003) explains the effects of foreign direct investment on total government expenditures and its components. In this study, they include Sample of 26 OECD countries. Firstly Tanzi (2000) suggest that globalization will reduce the tax base and hence the ability of governments to finance present levels of social protection. Secondly, Rodrik (1998) shows that more open countries have bigger governments because citizens demand a higher share of government expenditures in the share of GDP so as to mitigate the risk of the external exposure. Sharma & Azmat (2004) explain the effects of foreign direct investment on human development and the effect of foreign direct investment on economic growth of both developed and developing countries. This study has examined for two groups of countries the low and middle during the period from 1975 to 1999. They used fixed Regression model and results shows positive effect of foreign direct investment on human development for both the groups of countries.

Leigh (2009) measures tax transfer system impact on education and skills by using 27 developed countries data. Brempong uses panel data from African countries and a dynamic panel estimator to investigate the effects of corruption on economic growth and income distribution. Findings of this study are that corruption decreases economic growth. A unit increase in corruption reduces the growth rates of GDP and per capita income by between 0.75 and 0.9 percentage points and between 0.39 and 0.41 percentage points per year respectively. Ju (2012) utilizes the panel vector error correction model (PVECM) to examine the relationship among corruption, economic growth, and income inequality experienced within ten Asian countries over the 1995 to 2010 period. Study shows that corruption increases economic growth. Meanwhile, an increase in economic growth will cause an increase in income inequality, although the effect is insignificant. Similarly, an increase in income inequality will cause an increase in economic growth but a decrease in corruption, although the effect is also insignificant.

4. Theoretical link

Theoretical link can be defined by rent seeking theory of corruption presented by economists. In this approach, corruption slow down the economic growth because opportunities for corrupt practices destroys incentives and market signals which leads to human talent into rent seeking activities rather than productive activities hence misallocation of resources occur. Corruption is seen as an inefficient tax on those who are forced to pay it hence it raises the cost of production and it increases the transaction cost because these are conducted in secrecy. It also leads bureaucrats to expand on the unproductive sectors rather than productive and developmental projects.
5. Variables
Dependent Variables:  Education index.
Independent Variables:  Corruption, FDI, Tax revenues.
Control Variables:  Tax & FDI which are also independent variables.

Corruption
This is an assessment of corruption within the political system. Such corruption is a threat to foreign investment for several reasons: it distorts the economic and financial environment; it reduces the efficiency of government and business by enabling people to assume positions of power through patronage rather than ability; and, last but not least, introduces an inherent instability into the political process. The most common form of corruption met directly by business is financial corruption in the form of demands for special payments and bribes connected with import and export licenses, exchange controls, tax assessments, police protection, or loans. It can lead to unrealistic and inefficient controls on the state economy, and encourage the development of the black market.

Tax revenue (% of GDP)
Tax revenue refers to compulsory transfers to the central government for public purposes. Certain compulsory transfers such as fines, penalties, and most social security contributions are excluded. Refunds and corrections of erroneously collected tax revenue are treated as negative revenue.

Foreign direct investment, net inflows (% of GDP)
Foreign direct investment is the net inflows of investment to acquire a lasting management interest in an enterprise operating in an economy other than that of the investor. It is the sum of equity capital, reinvestment of earnings, other long-term capital, and short-term capital as shown in the balance of payments. This series shows net inflows (new investment inflows less disinvestment) in the reporting economy from foreign investors, and is divided by GDP.

Education
The most powerful instruments for reducing poverty and inequality and lays a foundation for sustained economic growth. The Education index includes in the Human Development
Index published by United Nations every year. It is measured by the adult literacy rate (with two-thirds weighting) and the combined primary, secondary, and tertiary gross enrollment ratio (with one-third weighting). The adult literacy rate gives an indication of the ability to reading and writing, while the GER gives an indication of the level of education from nursery (UK & others)/kindergarten (USA & others) to post-graduate education.

6. Data & Methodology
We use annual data set which comprises of 20 observations year from 1991 to 2010 of 4 SAARC countries Bangladesh, India, Pakistan and Sri Lanka. We took data of different variables Education index, Tax revenues as % to GDP, Corruption index and FDI inflows as % to GDP. Our data source was World Bank, WDI, and ICRG. In this section we model the effect of corruption, tax revenue and foreign direct investment on education. We apply Ordinary Least Square (OLS) regression technique as the main methodology by using Eviews 6 software. We examine whether these models support the existing literatures of relationship between corruption and social sector.

7. Estimation results & discussion

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<th>Variable</th>
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<th>Prob</th>
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</tbody>
</table>

By using Eviews software cross-section panel effects method is used for estimation. The following results are discussed below:

Education and Corruption
Mostly studies shows that corruption control is positively associated with public provision of education services. The literature review shows different views about corruption relationship between education. Many writers have found negative relationship between them some shows a positive one that when corruption is controlled the primary dropout rates will decrease and there would be increase in economic growth. OLS estimation shows that education and corruption are correlated with each other and there is positive and significant association between education and corruption. The numeric value of corruption coefficient is 0.109837 and their probability is 0.0000 that shows that corruption is statistically significant at 1% level of significance. Specifically expressed, a 1 percent increase in corruption has been found to be associated with 0.1 percent increase in education index. This results supports the views of different studies [see Sanjeev Gupta (2000) & Shleifer and Vishny (1993)]. A control of corruption will lead to expending more on productive resources rather shifting human capital to the rent seeking activities. It shows there would be a positive effect on adult literacy rate and gross enrollment ratio.

Education and FDI
Studies show that education and foreign direct investment are positively related with each other [see Rodrik (1998) & Sanz Ismael & Francisco J. Velázquez (March, 2003)]. Many studies also have found a negative relationship; there are those who have found weak relationship among these variables. The relationship between education and foreign direct investment is significant empirically. For investigation of relationship between above stated
variables, ordinary least square (OLS) is applied. OLS estimation shows that there is positive and significant association between education and FDI. The numeric value of FDI coefficient is 0.025961 and their probability is 0.00000 that shows statistically significant at 1%. Specifically expressed, a 1 percent increase in FDI inflows has been found to be associated with 0.02 percent increase in education. The results support the views of Rodrik that foreign direct investment makes social sector provision better. More revenues will be generated through foreign direct investment will lead to more expenditures on education sector and it will lead to more adult literacy rate and gross enrollment ratio.

**Education and Tax revenue**

OLS estimation shows education and tax revenues are positively related to each other and statistically significant at 1% because Tax revenue coefficient is 0.033300 and probability value is 0.0000. As tax revenues increases spending on social sector also increase so the education level also increases. These shows that as tax revenues collection increases in a country by spending more on education sector can lead to increase in adult literacy rate and gross enrollment ratio.

**8. Conclusion and Policy recommendation**

Our study objective is to assess the impact of corruption on provision of social services to the social sector. For this purpose we have collected data from some authentic sources like World Bank and ICRG of 4 SAARC countries selected on the basis of availability of data. Some control variables are also used as independent variable with corruption and dependent variable education. Data is collected regarding all these variables in selected countries. Results shows that all these variables are positively related to education index and shows as corruption will control the education provision will be better also foreign direct investment also have positive relation to education and as tax revenue will increase and spend to the education provision then education level will increase. According to our study there should be policies to increase education level in SAARC region countries to illuminate illiteracy like subsidies should be given to education sector by increasing tax revenues and corruption should be controlled to spend more revenues on social sector development also globalization should be promoted in countries to enhance skills as education have positive relationship with development. It will lead to development.

**References**