*NUST JOURNAL OF SOCIAL SCIENCES HUMANITIES*
*Vol.9 No.1 (January-June 2023) pp. 35-54*

# Fiscal Decentralization Human Development in Selected Developing Countries in Asia: Role of Institutionalization

Amna Khalid[1] and Bushra Yasmin[2]

[1] Department of Economics, Fatima Jinnah Women University, Rawalpindi, Pakistan; Email: sweetamna719@gmail.com
[2] Department of Economics, Fatima Jinnah Women University, Rawalpindi, Pakistan; Email: bushra.yasmin@fjwu.edu.pk

## Abstract

*The paper aims to investigate the impact of fiscal decentralization on human development moderating role of political institutions in selected Asian countries for the period 1990-2019, applying panel data Fixed Effects models. The empirical findings show that fiscal decentralization at both the provincial local level exerts positively significant effect on human development the optimal level of fiscal decentralization is computed at 1.143 and 0.229, respectively which suggests that fiscal decentralization above this level may revert the results for human development. The non-linear specification of the model also portrays a rising human development in the wake of fiscal decentralization but at decreasing rate. Moreover, the role of institutionalization is proved to be effective in the case of the countries where provincial level decentralization is controlled in the model. The results imply that lack of proper coordination resulting mismanagement, due to many tiers of governance, can subside human development. However, fiscal decentralization is identified as an essential factor for Asian countries to increase the efficiency of public sector if supported with a controlled decentralization at the sub-national level.*

***JEL Classification**: H50, H70, O15*

**Keywords**: Fiscal Decentralization, Human Development Index, Huntington's Approach**,** Industrialization, Fixed Effects Model

**Article History:** Received: December 08, 2022, Revised: August 18, 2023, Accepted: August 19, 2023, Published: August 28, 2023



**DOI:** 10.51732/njssh.v9i1.158

## 1. INTRODUCTION

In developing countries, the debate around fiscal decentralization has been growing over the recent decades. Fiscal decentralization is a transfer of responsibility from central to provincial local government [Rodden (2003)

Braun and Grote (2002)]. According to Vaillancourt (1997), developing countries are adopting the decentralized governance system gradually to avoid macroeconomic instability, inadequate economic development inefficient governance. In western countries, decentralization has remained an effective instrument for the restructuring of governments. For instance, European decentralized governance directly impacts the socialist framework of the economy (Bird Wallich, 1995). Whereas, in the Asian region, this appears as a tool to settle economic inefficiencies, as pointed out by Faridi et al. (2019). While the decentralization in Latin America initiated by shifting the political force from the people (Rojas, 1999). Conversely, in the African countries, decentralization has supported as a way to national unity (World Bank, 1999). Fiscal decentralization, as one of the major branches of decentralization, defines how a country's revenues expenditures are allocated to the various levels of government. Hence, fiscal decentralization includes two interconnected concerns: first is the allocation of revenues expenditure across various levels of government, second is the discretionary powers given to the local regional governments in determining their revenues expenditures. These combined features have a significant impact on decentralization on a wider scale i.e., political administrative level.

Fiscal decentralization can be linked to human development due to its direct connection with the governance of the country which entails the provision of basic human needs. More specifically, human development pertains to expunging people's choices, healthy environment, access to quality education and decent standard of living. The process of human development involves attaining an optimum level of health which contains mental, educational, social cultural components which is translated into poverty reduction, social development economic growth. For understanding the human well-being, Amartya Sen (1999) embodied the capabilities approach that highlights the importance of ends (standard of living) over the means (income per capita). Scholars believe that fiscal decentralization in the health sector has remained beneficial as the decentralized health-care system offered at provincial government level can better adapt to the needs of residents. Moreover, a decentralized system is expected to be more effective in implementing managing both the health education programmers due to higher community participation local responsibility. According to Ahmed Lodhi, (2016), decentralization of health provision is predicted to improve efficiency by better allocation of resources to specific groups, particularly low-income groups. Hence, fiscal decentralization can improve public welfare can increase the productivity of community service delivery, allowing the poor to get access

to fundamental services such as education, health, electricity water. According to Tanzi (1996) Oates (1972), the essence of fiscal decentralization is an adequate efficient distribution utilization of resources at different levels of governments. If fiscal decentralization is properly implemented, it can lead to greater political stability, government efficiency and higher public service living standards (World Bank, 2000).

Admittedly, despite significant progress in human development, huge disparities remain, many have been denied fundamental rights such as health care education in developing countries, indicating the lack of human development. From that context, the role of institutionalization, based on Huntington's index (1965), can play pivotal role. Institutionalization is the process by which the political institutions grow in strength quality. According to Huntington (1965), level of institutionalization can be determined by the prevalence of such organization which are adaptive rather than rigid is adapted to tackle the challenges; they are autonomous rather than submissive implying that more powerful institutions would be more self-sufficient than the rest; they can be defined by the coherence rather than discord factors implying that there will be more agreement inside the organization. Particularly, the more adaptive less rigid organization is associated with the higher level of political institutions while less adaptable inflexible organization is associated with lower level of institutionalization. In general, it is a function of age environmental challenge of the particular political group. The greater its age the more problems it has faced in its surroundings, the more adaptive it is. This implies that younger organizations' political groups are more rigid than older organizations. Hence, the generational age is a second indicator of adaptation. The adaptability of an organization is still in question as long as its founding leaders are still in power, a method is still ongoing by those who carried it out. Finally, the administrative adaptability can be examined in terms of its functional capabilities. An organization that has one or more changes in its primary functions and has adapted to changes in its environment is more institutionalized than the one that has not. This is believed that political parties are essential in maintaining stability legitimacy in the political system.

With this background, this study attempts to measure the impact of fiscal decentralization on human development along with the moderating role of political institutions. According to the Asian Development Bank (2011), decentralization has caught the interest of governments in South Asia. From 1990 to 2014, approximately 46 percent of total expenditures was distributed at the subnational level in India; 3 percent in Pakistan; 6 percent in the Maldives 4 percent in Bhutan. Revenue decentralization is low in comparison to expenditure decentralization, with nearly 34 percent in India, 5.3 percent in the

Maldives, 1.1 percent in Pakistan, 1.7 percent in Bhutan. (Faridi et al. 2019). Decentralization in Asia, like most other parts of the world, is not a uniform phenomenon that offers varied effects on the respective countries.

To author's knowledge, limited studies are available that measure the linear non-linear effect of fiscal decentralization on human development for Asian developing countries. We are envisioned to study the impact of fiscal decentralization on human development by including the role of institutionalization for selective Asian developing countries for the time period 1990 to 2019. Besides, a broader index of institutionalization (based on political indicators) is used to discover its impact on human development with other stard variables including trade openness, income inequality, inflation foreign direct investment. The study also provides the non-linear association between fiscal decentralization human development provides the marginal effects of fiscal decentralization institutionalization at the country level.

The rest of the paper is organized as follows; the second section deals with the review of literature. Third section provides the methodology. The fourth section reports discuss the empirical results. The final section concludes the paper with some policy implications.

## 2. REVIEW OF LITERATURE

Theoretical literature on fiscal decentralization is based on the theorem of decentralization given by Oates in 1972, they explain the relationship between fiscal decentralization and human development. According to Oates (1972), preferences for public goods services are different for all districts. Fiscal decentralization promotes allocative efficiency, proficiency in the distribution of public services transparency. Likewise, Musgrave (1959) argued that fiscal decentralization improves allocative efficiency, economic proficiency, accountability and better delivery of public services. He disaggregated the function of government into three groups: resource allocation, income distribution economic stabilization. According to Musgrave (1959), the main function of government is to provide maximum social welfare through public goods allocation. Bird Wallich (1995) concentrates on the institutional factors which are important for decentralization, pointing out that most of research on decentralization assumes the presence of weak institutions in developing countries. Another important argument given by Prud'homme (1995) is that institutional design creates problems in decentralizing the system because institutions are strong in rich countries and weak in poor countries. He criticized the theories of fiscal federalism allocative efficiency.

Most of the empirical studies support the argument of fiscal decentralization having significantly positive effect on human development. For example, Lindaman Thurmaier (2002); Habibi et al. (2003) Silas (2017) finds positive relationship between fiscal decentralization human development. However, some studies reported a negative relationship between fiscal decentralization and human development like Pasichnyi (2019]. Mostly, previous studies show revenues decentralization is positively related with human development, but expenditure decentralization is negatively related to human development in developing countries in some cases [Faridi et al. (2019), Udoh et al. (2015) Yusof (2018)].

Similarly, the existing literature on the impact of fiscal decentralization on political institutions provides mixed results. Enikolopov Zhuravskaya (2007), Kyriacou Sagales (2008) provided evidence for positive relationship between fiscal decentralization political institutions. According to Tranchant (2008), fiscal decentralization is more effective in developed countries because their institutions are stronger as compared to developing countries. Another study by Shelleh (2017) focused on the relationship between fiscal decentralization and political institutions in developing countries using fixed rom effect techniques for the time 1984-2012. The empirical results show that revenue decentralization reduces institutional quality, but expenditure decentralization tends to increase it.

By large, studies do not differentiate between provincial local expenditure revenues that could yield variation in results. The impact of fiscal decentralization on human development following Huntington's approach for measuring political institutions is uncommon in research. This study bridges the gaps in literature in many ways. Firstly, this study differentiates provincial local expenditure revenues. Secondly, the impact of political institutions on human development is measured by the index of institutionalization. Thirdly, this study investigates whether there exists a non-linear relationship between fiscal decentralization and human development.

## 3. METHODOLOGY DATA DESCRIPTION

### 3.1. Theoretical Framework

Oates's (1972) theorem of decentralization is important in explaining the relationship between fiscal decentralization and human development. According to Oates (1972), fiscal decentralization is directly linked with human development because the main objective of fiscal decentralization is to increase the quality quantity of public human welfare. For understanding human well-

being, Amartya Sen embodied the capabilities approach that emphasizes on the importance of ends (standard of living) over the means (income per capita). Secondly, Huntington's (1968) institution-building approach to political development is used to explain the role of institutionalization in human development. This approach also describes political stability as political development while political instability as political decay. Therefore, political development stability can be directly linked, this link is connected with social welfare human development. As supported by Khan et al. (2019) development can be accomplished through strong institutions.

The Median Voter Theory of Democracy proposed by Olson explains the indirect link between fiscal decentralization and human development by incorporating the role of political institutions. According to theory, the democratic system provides a higher level of redistribution. Amartya Sen (1997) identified the quantitative dimension of redistribution allows for the extension of median voter theory by explaining the essential requirements of democratic institutions because democratic institutions make better redistribution are responsive to the needs of the society. In short, the institutional background is expected to decide the design of inter-governmental fiscal system eventually affect the results of fiscal decentralization reform process.

### 3.2. Empirical Model Data Description

The empirical models to estimate the influence of fiscal decentralization on human development with the role of institutionalization in selected Asian developing countries for the time 1990 to 2019 is given as below:[1][2]

Base Model.

$$HD_{it} = \alpha_0 + \alpha_1 FD_{it} + \alpha_2 PI_{it} + \alpha_3 lnFDI_{it} + \alpha_4 INQ_{it} + \alpha_5 INF_{it} + \alpha_6 lnTO_{it} + \mu_{it} \quad \ldots (1)$$

Interaction of Fiscal decentralization with Institutionalization.

[1] The sample selection is subject to the availability of data for fiscal decentralization. The sample is comprised of the following panels: Panel 1 (for the model using provincial decentralization) consists of Armenia, Azerbaijan, Iran, Mongolia, India, Malaysia, Maldives, Pakistan Uzbekistan. While, Panel 2, for the model using local decentralization, contains Armenia, Azerbaijan, Iran, Mongolia, Indonesia, Kyrgyzstan, Thail, Turkey, Tajikistan.

[2] Due to missing observations, panel is unbalanced.

$$HD_{it} = \beta_0 + \beta_1 FD_{it} + \beta_2 PI_{it} + \beta_3 FD_{it} * PI_{it} + \beta_4 lnFDI_{it} + \beta_5 INQ_{it} + \beta_6 INF_{it} + \beta_7 lnTO_{it} + \mu it \quad \ldots (2)$$

Measuring the non-linearity;

$$HD_{it} = \gamma_0 + \gamma_1 FD_{it} + \gamma_2 FD_{it}^2 + \gamma_3 PI_{it} + \gamma_4 lnFDI_{it} + \gamma_5 INQ_{it} + \gamma_6 INF + \gamma_7 lnTO_{it} + \mu it \quad \ldots (3)$$

The dependent variable of study is Human Development (*HD*) which is measured by Human Development Index (HDI) developed by UNDP. It measures three fundamental areas of human development: healthy life; evaluated by life expectancy at birth, Education; assessed by expected mean years of schooling, the stard of living; determined by Gross National Income (GNI). *FD* represents fiscal decentralization which is determined by the index of composite decentralization calculated by both expenditure revenues following Martinez Vazquez (2011) Iqbal et al. (2012). *PI* shows political institutionalization index which is computed by Huntington approach for political institutions based on three indices namely adaptability, legitimacy, coherence. *FD*PI* indicates the interaction between fiscal decentralization political institutions, to measure the political institutions-led impact of fiscal decentralization on human development. Other control variables are foreign direct investment (*FDI*), income inequality (*INQ*), inflation (*INF*) trade openness (*TO*).

### 3.2.1 Measuring the Fiscal Decentralization

The existing literature provides two ways, revenue decentralization expenditure decentralization, to evaluate the impact of fiscal decentralization. To avoid double counting, Woller Philips (1998) adjusted the calculations of expenditures decentralization by subtracting the expenses for defense debt interest payments from total government expenditures. On the other h, Martinez-Vazquez, McNab Timofeev (2003, 2010) developed a more comprehensive measure that considers the multifaceted aspect of decentralization. By integrating expenditure revenue decentralization, they established composite decentralization index, this study uses their formula, given as below:

$$FD = \frac{RD}{1-ED} \quad \ldots (4)$$

Where, *RD* refers to Revenue decentralization which measures the proportion of general government revenue that comes from the two levels of government

(provincial local, respectively).[3] Revenues obtained from other levels of governments, non-resident governments, foreign organizations are not included in own revenues. The following formula is used to calculate revenues decentralization:

$$Revenues\ decentralization = \frac{XG\ own\ revenues}{GG\ revenue} \quad \ldots (5)$$

*XG*= indicates the revenues at the given (*X*) level of government (provincial local, respectively), while *GG*= indicates revenues of the general government. The portion of revenue received as transfers from other government units, foreign governments and international organizations is not included in our own revenue.

*ED* stands for Expenditure decentralization which captures the proportion of general government spending that is invested in expenditures at various levels of government (provincial local, respectively). The portion of spending that is transferred to other levels of government, foreign governments international organizations is not included in the calculation. The following formula is used to calculate expenditures decentralization:

$$Expenditure\ decentralization = \frac{XG\ own\ spending}{GG\ spending} \quad \ldots (6)$$

*XG*= indicates a given level of government (provincial local, respectively), *GG*= indicates a general government's spending. The portion of expenditure received as transfers from other government units, foreign governments and international organizations is not included in our own revenue.

### 3.2.2 Measuring the Institutionalization

Huntington's (1965, 1968) influential work on political development political decay introduced the term political institutionalization. According to Huntington (1965), institutionalization is one of the most important aspects of political development. In this study the institutionalization index is measured by employing Huntington's approach of institutions. The measure is characterized by various dimensions including adaptability, which is measured by party age, legitimacy measured by total fractionalization, opposition fractionalization, number of opposition seats, figures of government seats. Similarly, another dimension is coherence which is measured by the number of other opposition parties, number of other opposition party seats, opposition party having the majority in the house senate legislative index of political

[3] We have computed two indexes: provincial level local level.

competitiveness, executives index of political competitiveness, elected municipal executives, elected state executives, parliamentary system, proportional electoral rule [Schneider (1971); Enikolopov Zhuravskaya, (2007)]. These indices are captured concisely under one measure of institutionalization by applying Principal Component Analysis method.

The data is collected over the time from 1990 to 2019 the information regarding the variables their data sources is given in Table 1.

Table 1. Variables Description Data Source

| Variabl | Description | Data Source | Mean (S.D) (Panel 1) | Mean (S.D) (Panel 2) |
|---|---|---|---|---|
| HD | Human development index measured by life expectancy at birth, expected mean years of schooling, GNI | Human Development Report (UNDP, 2019) | 0.63 (0.09) | 0.66 (0.06) |
| FD | Fiscal decentralization is measured by using composite index on revenues expenditures decentralization. | Government Finance Statistics (GFS) IMF Data (2021) Economics Surveys of Pakistan (various issues) (2020) | 0.20 (0.23) | 0.09 (0.07) |
| PI | Three indicators of institutionalization were computed by Huntington approach. i) adaptability ii) legitimacy iii) Coherence | Author's own calculation from database of political institutions-(DPI) (2017,2020) | -0.103 (0.96) | 0.12 (1.03) |
| FDI | Foreign direct investment is measure by net inflows (BOP, current US$) | World Bank Indicator (WDI) | 20.16 (2.33) | 20.1 (2.37) |
| INQ | Income inequality is measure by Gini coefficient. | World Bank Indicator (WDI) | 36.50 (5.55) | 35.2 (5.26) |
| INF | GDP deflator (annual %) | World Bank Indicator (WDI) | 63.85 (308.2) | 63.53 (34.5) |
| TO | Trade (% of GDP) | World Bank Indicator (WDI) | 4.21 (0.62) | 4.34 (0.41) |

### 3.3. Estimation Technique

The panel data model has the advantage of incorporating both cross-sectional time-specific effects, as well as providing larger sample benefits. Depending on the relationship between the error term and the explanatory variables, the model specified as equation 1-3 can be estimated using Fixed Effects Model Rom Effects Model. The fixed effect model differs from the common effect, but still uses the ordinary least square principle. The fixed effect assumes that differences between cross sections can be accommodated from different intercepts. In order to estimate the fixed effects model with

different intercept between individuals, the least square dummy variable technique is used. In principle, the rom effect model is different from the fixed effects model in the sense that it uses the principle of maximum likelihood or general least square.

### 3.3.1. Fixed Effects Model (FEM)

The fixed effect model allows interception to vary across all cross-sectional units, but the slope coefficient is assumed to remain the same assumes the movement across the cross-sectional units as deterministic. The base model can be re-specified as under:

$$HD_{it} = \alpha_0 + \alpha_i + \alpha_1 FD_{it} + \alpha_2 PI_{it} + \alpha_3 lnFDI_{it} + \alpha_4 INQ_{it} + \alpha_5 INF_{it} + \alpha_6 lnTO_{it} + \mu_{it} \quad \ldots (7)$$

Where $\alpha_i$ determines the country specific terms varies from one cross-sectional unit to another. The effects of time can also be combined into the equation (8) by addition time dummies which varies across time. The model can be re-written as:

$$HD_{it} = \alpha_0 + \alpha_i + \alpha_t + \alpha_1 FD_{it} + \alpha_2 PI_{it} + \alpha_3 lnFDI_{it} + \alpha_4 INQ_{it} + \alpha_5 INF_{it} + \alpha_6 lnTO_{it} + \mu_{it} \quad \ldots (8)$$

Where, $\alpha_t$ defines the time effects. The time dummies are more appropriate to discuss the influence of various policy interventions and new technology adopted by the government over a period.

### 3.3.2. Rom Effects Model (REM)

Rom effects models are statistical models in which some of the parameters that determine the model's systematic components change romly. Variation in observed variables is always described in terms of systematic unsystematic components in statistical model. The model is also known as Variance Component Model.

Rom effect model can be written as:

$$HD_{it} = \alpha_0 + \alpha_1 FD_{it} + \alpha_2 PI_{it} + \alpha_3 lnFDI_{it} + \alpha_4 INQ_{it} + \alpha_5 INF_{it} + \alpha_6 lnTO_{it} + \mu_{it} + w_i \quad \ldots (9)$$

Country specific effects are treated as rom in the given equation. Equation (10) provides the modified model to adjust for time specific effects, given below:

$$HD_{it} = \alpha_0 + \alpha_1 FD_{it} + \alpha_2 PI_{it} + \alpha_3 lnFDI_{it} + \alpha_4 INQ_{it} + \alpha_5 INF_{it} + \alpha_6 lnTO_{it} + v_{it} \quad \ldots (10)$$

where, $v = \mu_{it} + w_i$ all the components of disturbance term in the provided model are expected to be rom.

### 3.3.3. Hausman Specification Test

The Hausman specification test developed in 1978 is used to select between fixed rom effect models. The Hausman test associates the fixed effect rom effect by testing the null hypothesis suggests that if p-value of the test is >0.05, the null hypothesis is not rejected favors the rom effect estimates. While, if p-value of the test is <0.05, the null hypothesis is rejected which implies fixed effect model is consistent. In our empirical results the p-value is <0.05 so, we rejected the null hypothesis which means the fixed effect model is consistent is reported interpreted in the result section.

## 4. RESULTS DISCUSSION

This section provides the empirical findings discussion. The first section provides the results of fiscal decentralization human development with the role of political institutions for panel 1 while the second section provides the same for panel 2.

### 4.1. Estimation Results (Panel 1)

The empirical findings of Fixed Effects Model (FEM), applied on the panel of countries where fiscal decentralization was measured at the provincial level, are presented in Table 2. The Hausman specification test exhibits the fixed effects result as valid. The results are reported for all specifications of model; linear non-linear.

Table 2. Fixed Effects Estimates for HDI

| Panel A: Fixed Effect Estimates | | | |
|---|---|---|---|
| Dependent Variable: Human Development Index | | | |
| Variables | (1) | (2) | (3) |
| FD | 0.026**<br>(0.014) | 0.073*<br>(0.018) | 0.311*<br>(0.069) |
| PI | 0.021*<br>(0.004) | 0.064*<br>(0.012) | 0.018*<br>(0.018) |
| LnFDI | 0.020*<br>(0.002) | 0.017*<br>(0.002) | 0.016*<br>(0.002) |
| INQ | -0.0002<br>(0.0009) | -0.0009<br>(0.0009) | -0.0007<br>(0.0009) |
| INF | -0.0003<br>(0.0002) | -0.000<br>(0.0002) | -0.000<br>(0.0002) |
| LnTO | -0.032**<br>(0.013) | -0.025**<br>(0.013) | -0.306**<br>(0.012) |
| FD*PI | - | -0.827*<br>(0.021) | - |
| $FD^2$ | - | - | -0.136*<br>(0.032) |
| Panel B: Diagnostic Test | | | |
| F-Test for Fixed Effects (p-value) | 25.14<br>(0.000) | 25.85<br>(0.000) | 26.92<br>(0.000) |
| $\chi 2$ Hausman Specification test (p-value) | (0.000) | (0.000) | (0.000) |
| B-P test for Heteroscedasticity | 0.05<br>(0.815) | 0.64<br>(0.422) | 0.30<br>(0.586) |
| Mean VIF | 1.24 | 2.57 | 2.84 |
| N | 143 | 143 | 143 |

Note: (1) values in parenthesis of coefficients indicate start error. (2) *, **, *** indicate significance at 1%, 5% and 10% respectively.

The estimation results reported in Table 2 show that fiscal decentralization, institutionalization, and foreign direct investment has statistically significantly positive impact on human development. Fiscal decentralization promotes human development better institutionalization plays a significant role in improving respective countries' HDI. On the other h, trade openness has significantly negative effects on human development. However, income inequality inflation appeared insignificant. Overall, the results are consistent across the equations yield similar signs for corresponding coefficients are as per expectations.

The interactive role of political institutions with decentralization is reported in equation (2) which appears with statistically significantly negative sign. As the interactive variable is not directly observable, we have delineated its role by computing its marginal effect at the mean value at the 10th, 25th, 50th, 75th 90th percentile of institutionalization, presented in figure 4.1.

Figure 1. Marginal effect of Fiscal decentralization on Human development at various Percentiles

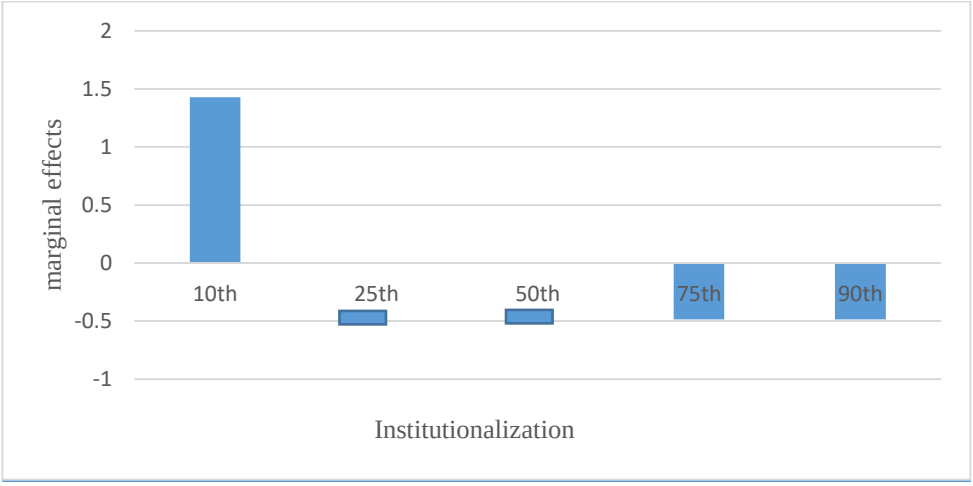
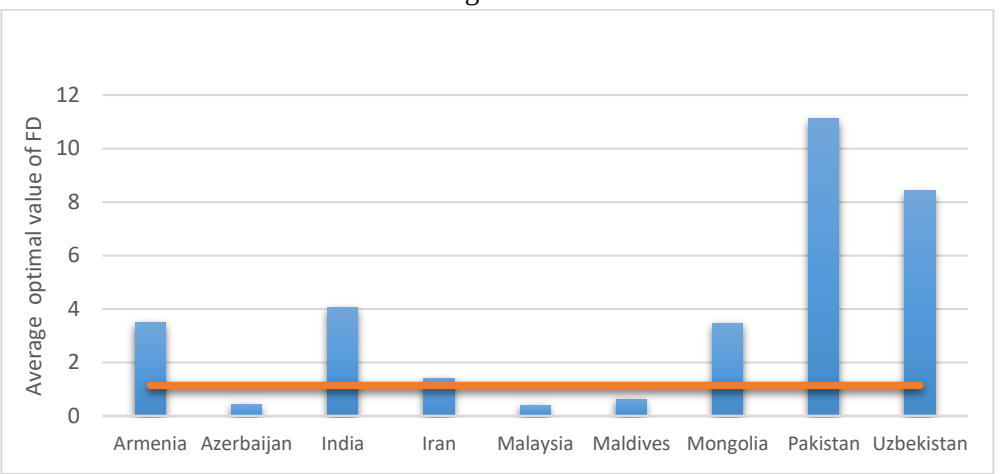



Figure 1 shows, as we move on to higher percentiles of political institutions, which refers to higher institutionalization, the effect of fiscal decentralization on human development tends to decline, might be due to extreme autonomy as the measurement of institutionalization depicts. This might also be due to the fact that fiscal decentralization at provincial level with lower managerial capacity lack of coordination between provincial central government hinders the potential impact of decentralization on human development.

Besides, foreign direct investment has a positive influence on human development because a country with higher foreign direct investment leads to higher gross domestic product is able to provide better facilities of goods services to its citizens, which will increase their standard of living. The findings are consistent with Gökmenoğlu et al. (2018). Conversely, trade openness has significantly negative effect on HDI of selected panel. The findings are not novel as the higher trade openness make competition for local producers stiffer, on the one h leads to excessive imports on the other which imbalances the trade balance eventually discourages human development from the channel of economic growth that is also supported by previous studies by Faridi et al. (2019).

Coming to the non-linear association between fiscal decentralization human development with the role of institutionalization at the provincial level, is provided in equation 3 of Table 2. The fiscal decentralization has positive while its square term has negatively significant effect on HDI which shows the effect of decentralization measured at provincial level tends to increase but at decreasing rate. The optimal level computed from equation 3 yields the value 1.143.[4] The findings are further elucidated by the Figure 3 which provides the comparison of optimal value level of fiscal decentralization with the average value at country level.

Figure 2. Comparison of Optimal level of Fiscal decentralization (FD) with Average Value




Source: Author's own calculation from Government Finance Statistics (GFS) IMF Data Economic Survey of Pakistan (2021).

Figure 4.2 shows Armenia, India, Iran, Mongolia, Pakistan Uzbekistan are above the optimal level, may be due to resources misutilization mismanagement at provincial level.

## 4.2. Estimation Results (Panel 2)

The empirical results of Fixed Effect Model (FEM) for the sample of countries from Panel 2 are presented in Table 4.2 where again Hausman Specification test exhibits the fixed effects result as valid. Overall estimation results reported in Table 4.2 exhibit that fiscal decentralization, foreign direct

[4] $HD_{it} = \gamma_1 FD_{it} + \gamma_2 FD_{it}^2$
$\frac{\partial HD_{it}}{\partial FD_{it}} = 0.311 - 2 * (0.136) FD_{it} = 0$
$FD = 1.143$

investment, income inequality, inflation trade openness has statistically significant impact on human development. Fiscal decentralization tends to promote human development. The institutionalization index plays a key role in improving HDI in selected sample. Foreign direct investment is also a significant determinant of human development. Unlike results for Panel 1, institutionalization has not promising role in determining human development, neither in isolation nor as an interaction with fiscal decentralization.

Table 3. Fixed Effects Estimates for HDI

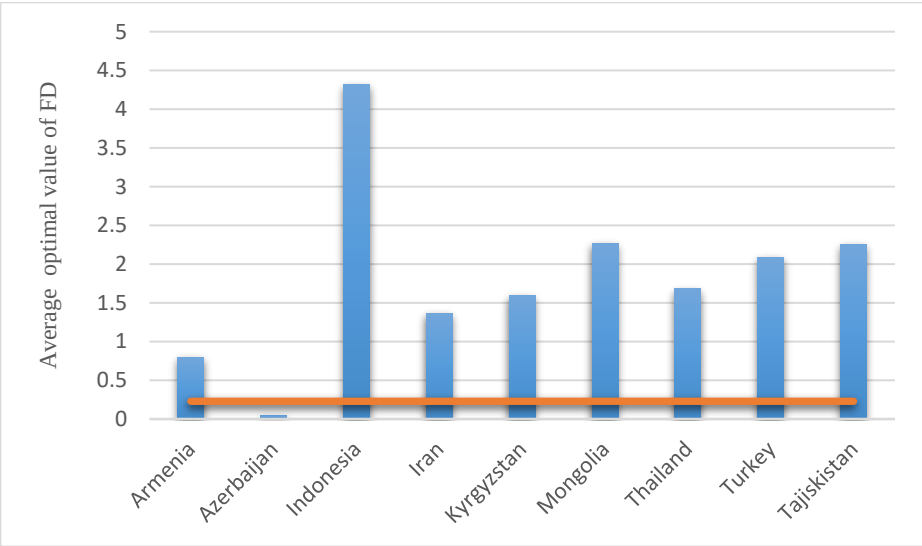
| Panel A: Fixed Effect Estimates | | | |
|---|---|---|---|
| Dependent Variable: Human Development Index | | | |
| Variables | (1) | (2) | (3) |
| FD | 0.121**<br>(0.065) | 0.121**<br>(0.065) | 0.773*<br>(0.196) |
| PI | 0.002<br>(0.003) | 0.001<br>(0.006) | 0.004<br>(0.003) |
| LnFDI | 0.021*<br>(0.002) | 0.021*<br>(0.002) | 0.016*<br>(0.002) |
| INQ | -0.002**<br>(0.001) | -0.002**<br>(0.001) | -0.002*<br>(0.001) |
| INF | -0.0005**<br>(0.0003) | -0.0005**<br>(0.0003) | -0.0005**<br>(0.0003) |
| LnTO | -0.056*<br>(0.017) | -0.056*<br>(0.017) | -0.061*<br>(0.017) |
| FD*PI | | 0.015<br>(0.062) | |
| $FD^2$ | | | -1.687*<br>(0.481) |
| Panel B: Diagnostic Test | | | |
| F-Test for Fixed Effects<br>(p-value) | 17.59<br>(0.000) | 14.9<br>(0.000) | 18.03<br>(0.000) |
| $\chi 2$ Hausman Specification test<br>(p-value) | (0.000) | (0.000) | (0.000) |
| B-P test for Heteroscedasticity | 1.49<br>(0.222) | 1.49<br>(0.222) | 3.48<br>(0.062) |
| Mean VIF | 1.27 | 2.26 | 3.13 |
| Observations | 157 | 157 | 157 |

Note: (1) values in parenthesis of coefficients indicate standard error. (2) *, **, *** indicate significance at 1%, 5% and 10% respectively.

The non-linear relationship between fiscal decentralization human development with the interactive role of institutionalization is reported in equation (3) of Table 3 where fiscal decentralization appears positively significant while negative for its square term. This indicates a rising HDI with

decentralization but at a decreasing rate, as was the case in Panel 1. Our results are relatable with Soe et al. (2015) who concluded that fiscal decentralization above a particular level might discourage human development. Generally fiscal decentralization allows local governments to utilize their resources fully to improve efficiency, however this can put pressure on public spending can increase predatory intergovernmental competitiveness resulting in lower performance on HDI front. An adequate institutional political environment is required to pursue the goals of high human development with respect to decentralization effectively. The conclusion is supported by the computed threshold i. e., 0.229 its comparison with country's average further elucidates the result, presented in Figure 3.[5]

Figure 3. Comparison of Optimal level of Fiscal decentralization (FD) with Average Value




Source: Author's own calculation from Government Finance Statistics (GFS) IMF Data.

Comparing the optimal value of fiscal decentralization in developing Asian countries Figure 3 shows Armenia, Indonesia, Iran, Kyrgyzstan, Mongolia, Thail, Turkey, Tajikistan is above the optimal value.

Coming to other results, FDI is also a major determinant of human development in Panel 2 while trade openness is bearing a negative effect on HDI like Panel 1, for the same justification. Inflation and income inequality

[5] The same formula is applied to compute optimal level as is mentioned for the results for Panel 1, reported in footnote 4.

have negative effects on human development, as both are the reflection of poor economic stings of the country which ultimately leads to lower level of social welfare. Leal (2021) reported similar findings for income inequality.

The findings from two panels of countries conclude that fiscal decentralization at provincial local level has favorable impact on human development, with the optimal value of 1.143 0.229, respectively. However, institutionalization for the first panel has significant while remains insignificant for the second panel for which fiscal decentralization at local level was controlled. Now, we turn to the overall conclusion policy suggestions.

In principle, political institutions can improve human development by allowing independence of information political privileges that can further enhance the public welfare, however its role is not well established for both datasets in our case.

## 5. CONCLUSION AND POLICY IMPLICATIONS

This study attempts to measure the impact of fiscal decentralization on human development with the role of political institutions in selected Asian developing countries for the period 1990 to 2019, employing the Fixed Effects Model. The empirical findings depict that fiscal decentralization at both levels i.e., provincial locals, are positively significant in developing countries, demonstrating a rise in human development in the wake of fiscal decentralization. Subnational governments are expected to function efficiently because of their close connection to the individuals' communities and have access to additional information which enables them to respond accordingly. As suggested by Akpan (2011), fiscal decentralization is associated with a lower level of mortality rate and a higher level of literacy rate. Additionally, according to Faridi et al. (2020), each provincial government usually spends revenues according to sub-national level requirements priorities which can raise the proficiency of health education sector. Hence, in developing countries fiscal decentralization can be effectively used as an effective tool for efficient provision of public service delivery. Depending on the strengths of national party system whether local provincial executives are appointed or elected, fiscal decentralization affects social economic development, public goods provision government quality in different ways (Enikolopor Zhuravskaya, 2007). Furthermore, the findings from the study suggest a non-linear relationship between fiscal decentralization and human development. The results show a rising HDI but at a decreasing rate as a result of increase in fiscal decentralization at both the provincial local level. Similarly, the interaction term of political institutions decentralization posits favorable impact at a

moderate level of institutionalization. The reason behind might be the exploitation misuse of authority excessive power on the available resources, which exerts negative effect on human development, as provided by Pose Ezcurra (2010).

Moreover, based on empirical findings the study suggests that proper implementation of fiscal decentralization is essential for Asian countries because it can increase the efficiency of the public sector resulting in boost in human development it is essential for governments to strengthen their institutions through appropriate policy measures to make the process of institutionalization impactful.

## REFERENCES

Ahmad, I., ul Haq, M., and Khan, J. (2020). Investigating the Impact of Fiscal Decentralization on Health Sector: A Case of Pakistan. *Kashmir Economic Review*, 29(2), 31-44.

Ahmed, M., and Lodi, A. S. (2016). Impact of Fiscal Decentralizations on Education Healthcare Outcomes: Empirical Evidence from Pakistan. *Journal of Applied Emerging Sciences*, 4(2), 122-134.

Akpan, E. O. (2011). Fiscal Decentralization Social Outcomes in Nigeria. *European Journal of Business Management*, 3(4), 167-183.

Arif, U., and Ahmad, E. (2018). A Framework for Analyzing the Impact of Fiscal Decentralization on Macroeconomic Performance, Governance Economic Growth. *The Singapore Economic Review*, *65*(1), 3-39.

Bird, R. M. and Wallich R, D. (1995). Decentralization of the socialist State: intergovernmental finance in transition economies. World Bank regional sectoral studies, IBRD

Enikolopov, R., and Zhuravskaya, E. (2007). Decentralization Political Institutions. *Journal of Public Economics*, 91(11-12), 2261-2290.

Faridi, M. Z., Mehmood, K. A., Azam, A., and Taqi, M. (2019). Fiscal Decentralization Economic Growth in South Asian Countries. *Pakistan Journal of Commerce Social Sciences (PJCSS)*, 13(2), 529-546.

Gökmenoğlu, Korhan K. and Apinran, Martins Olugbenga and Taşpınar, Nigar, (2018). Impact of Foreign Direct Investment on Human Development Index in Nigeria, *Business Economics Research Journal*, Uludag University, Faculty of Economics Administrative Sciences, 9(1), 1-13.

Habibi, N., Huang, C., Mira, D., Murillo, V., Ranis, G., Sarkar, M., and Stewart, F. (2003). Decentralization Human Development in Argentina. *Journal of Human Development*, 4(1), 73-101.

Huntington P. S. (1965). Political Development Political Decay**.** *World Politics*, 17(3), 386-430

International Monetary, F. (2014). Government Finance Statistics Manual 2014.

Iqbal, N., Din, M. U., and Ghani, E. (2012). Fiscal decentralization Economic Growth: Role of Democratic Institutions. *The Pakistan Development Review*, 51(89), 1-26.

Kyriacou, A. P., and Roca-Sagalés, O. (2011). Fiscal political decentralization government quality. *Environment Planning C: Government Policy*, *29*(2), 204-223.

Lindaman, K., and Thurmaier, K. (2002). Beyond Efficiency Economy: An Examination of Basic Needs Fiscal Decentralization. *Economic Development Cultural Change*, 50(4), 915-934.

Martinez-Vazquez, J. (2011). The Impact of Fiscal Decentralization: Issues in Theory Challenges in Practice. ECON Publications, 23.

Mehmood, R., Sadiq, S., and Khalid, M. (2010). Impact of Fiscal Decentralization on Human Development: A Case Study of Pakistan. *The Pakistan Development Review*, 49(4), 513- 530.

Musgrave, R.A. (1959). The Theory of Public Finance. McGraw Hill, New York.

Oates, W.E. (1972) Fiscal Federalism. Harcourt Brace Jovanovich, New York.

Pasichnyi, M., Kaneva, T., Ruban, M., and Nepytaliuk, A. (2019). The Impact of Fiscal Decentralization on Economic Development. *Investment Management Financial Innovations*, 16(3), 29-39.

Prud'homme R. (1995). The Dangers of Decentralization. *The World Bank Observer*, 10(2), 201-220

Rodden, J. (2003). Reviving Leviathan: Fiscal Federalism the Growth of Government. *International Organization*, 57(4), 695-729.

Rojas, F. (1999). The Political Context of Decentralization in Latin America. In Annual World Bank Conference on Development in Latin America the Caribbean. *Decentralization Accountability of the Public Sector*, 1(1), 20-22.

Schneider, P. R., and Schneider, A. L. (1971). Social Mobilization, Political Institutions, Political Violence: A Cross-National Analysis. *Comparative Political Studies*, 4(1), 69-90.

Shelleh, Z. (2017). Impact of Fiscal Decentralization on Institutional Quality: Evidence from Developing Countries. M.A. Degree Thesis submitted to the Department of Economics of the University of Ottawa, Ontario.

Silas, M. P. (2017). Effects of Fiscal Decentralization on Poverty Reduction Outcomes, Income Inequalities Human development in Kenya. International journal for innovation education research, 6(1), 213-230.

Tanzi, V. (1996). Fiscal Federalism Decentralization: A Review of Some Efficiency Macroeconomic Aspects. IMRD. 295-315

Tranchant, J. P. (2008). Fiscal Decentralization, Institutional Quality Ethnic Conflict: A Panel Data Analysis, 1985–2001. *Conflict, Security and Development*, 8(4), 491-514.

Udoh, E., Afangideh, U., and Udeaja, E. A. (2015). Fiscal Decentralization, Economic Growth Human Resource Development in Nigeria: Autoregressive Distributed Lag (ARDL) approach. *Journal of Applied Statistics*, 6(1), 69-93.

Vaillancourt, Francois (1997). North African Decentralization Case Studies: Morocco Tunisia. Proceedings of the Mediterranean Development Forum, *Marrakech, Morocco*, 3(3), 12-17.

Woller G. Phillips K. (1998), Fiscal decentralization IDC economic growth: An empirical investigation, *Journal of Development Studies*, 34(4): 139-148

Yusof, Y. (2018). Socio-economic Development the Role of Fiscal Decentralization in Malaysia, *International Journal of Finance Economics*, 27(3), 2669-2681.