



Working Paper 2026
- Vol. 2, No. 2

**TÁC ĐỘNG CỦA ĐÔ THỊ HÓA VÀ CHẤT LƯỢNG QUẢN TRỊ ĐẾN BẤT BÌNH
ĐẲNG THU NHẬP TẠI CÁC NƯỚC ĐANG PHÁT TRIỂN Ở CHÂU Á**

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Tóm tắt

Bài viết nghiên cứu tác động của chất lượng quản trị và đô thị hoá bất bình đẳng thu nhập dựa trên bộ dữ liệu bảng của các quốc gia đang phát triển tại khu vực Châu Á từ năm 2002 đến năm 2022. Kết quả nghiên cứu chỉ ra rằng khi kết hợp tiến hành đô thị hóa cùng các chính sách phù hợp và nâng cao chất lượng quản trị sẽ làm giảm bất bình đẳng thu nhập giữa hai khu vực kinh tế hiện đại và truyền thống. Từ đó, nhóm tác giả đã đưa ra một số giải pháp, khuyến nghị mà nhóm cho là cần thiết để Việt Nam có thể có quy trình cải cách phù hợp trong việc giảm bất bình đẳng trong thu nhập.

Từ khoá: đô thị hóa, chất lượng quản trị, bất bình đẳng thu nhập, các quốc gia đang phát triển

**THE IMPACT OF URBANIZATION AND GOVERNANCE QUALITY ON
INCOME INEQUALITY OF DEVELOPING COUNTRIES IN ASIA**

Abstract

The study examined the impact of governance quality and urbanization on income inequality using panel data from developing countries in the Asia region from 2002 to 2022. The research results indicated that combining urbanization with appropriate policies and improved governance quality reduces income inequality between the modern and traditional economic sectors. Based on this, the authors had proposed several solutions and recommendations that we believed are essential for developing countries to implement a suitable reform process to reduce income inequality

Keywords: Urbanization, Governance Quality, Income Inequality, Developing Countries

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1. INTRODUCTION

Inequality is a global issue that challenges one of the core objectives of the 2030 Agenda for Sustainable Development—“leaving no one behind.” This challenge is closely linked to major trends such as urbanization, migration, governance quality, and technological change (United Nations, 2020). Urbanization profoundly influences income distribution at various scales, from local to national and global. Meanwhile, governance quality reflects the effectiveness of public administration, which has a positive impact on economic growth and helps reduce income disparities between regions.

Empirical evidence shows that in developed countries, high governance efficiency allows economic growth to reduce income inequality (Gil et al., 2014; Lessmann, 2009), whereas in developing countries, it tends to increase inequality (Pose & Ezcurra, 2010; Lessmann, 2012). Furthermore, improved public administration efficiency has been found to reduce income inequality (Kyriacou, 2013).

The relationship between urbanization and income distribution has been examined in both theory and empirical research. Kuznets (1955) proposed the inverted-U hypothesis, suggesting a nonlinear relationship between economic development and inequality. Many empirical studies have also identified a link between urbanization and income inequality, particularly the widening gap between urban and rural areas. While some studies find that inequality increases alongside urbanization, others indicate a nonlinear relationship between the two (Loorbach & Shiroyama, 2016; Chiu, 2012).

Recognizing the influence of these two factors, the research team selected the topic *“The Impact of Urbanization and Governance Quality on Income Inequality of Developing Countries in Asia”*. By examining statistical data, case studies, and relevant policies, this study aims to clarify the relationship between these factors and inequality in developing countries. From this analysis, the paper draws lessons learned and proposes policy recommendations for developing Asian countries in the future.

2. THEORETICAL FOUNDATION

2.1. Urbanization

There are various concepts and theories that explain the process of urbanization. According to Britannica (2024), urbanization is the process by which a large number of people become permanently concentrated in relatively small areas, forming cities. From a demographic perspective, the urbanization rate refers to the pace at which the proportion of the urban population increases (McGranahan & Satterthwaite, 2014). A settlement is defined as urban only when the majority of its inhabitants are engaged primarily in non-agricultural occupations (Bairoch, 1988).

Thus, urbanization can be understood as the process of urban expansion through an increase in the population of towns and cities.

2.2. Governance quality

Governance has been explained through various concepts. According to the World Bank (2001), governance refers to the institutions, rules, and mechanisms for enforcing those rules. It is also defined as the manner in which power is exercised in the management of a country’s economic and social resources for development (World Bank, 1991).

To assess governance quality, Kaufmann et al. (2010) employed six dimensions:

- Voice and accountability
- Political stability and absence of violence
- Government effectiveness
- Regulatory quality
- Rule of law
- Control of corruption

2.3. Income inequality

2.3.1. Concept of income inequality

According to the General Statistics Office (2021), income inequality refers to the disparity in income and wealth between individuals, groups within society, or between countries. Income inequality exists in almost all countries in the world, regardless of whether they are developed or developing nations.

2.3.2. Measuring income inequality

- Lorenz curve

The Lorenz curve, developed by American economist Max Lorenz in 1905, provides an intuitive illustration of the relationship between the highest-income group and the lowest-income group by showing the correspondence between the cumulative percentage of national income and the cumulative percentage of the population. The more equal the income distribution, the closer the Lorenz curve is to the diagonal line, and vice versa. The Lorenz curve always lies between the line of perfect equality and the line of perfect inequality.

The Lorenz curve is a useful tool for assessing the degree of inequality in income distribution, as it offers a visual and geometric perspective on income inequality. However, this tool is rather simplistic and does not quantify the exact degree of inequality, which can make it difficult to draw accurate conclusions in more complex cases (e.g., when Lorenz curves intersect).

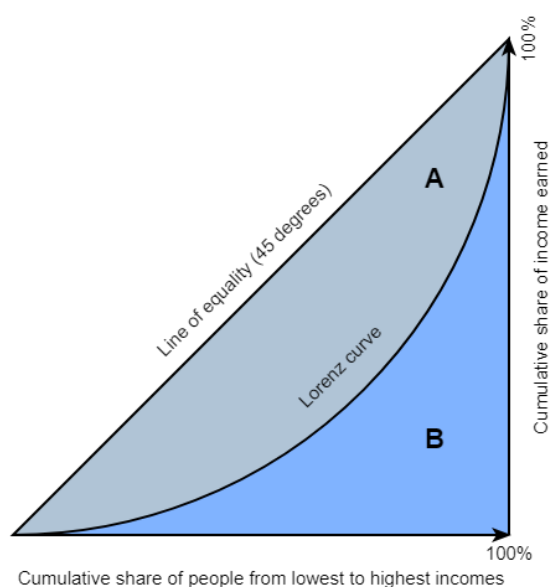


Figure 1: Lorenz curve

Source: Lorenz (1905)

- Gini coefficient

The Gini coefficient (G), invented by Italian statistician Corrado Gini, is calculated based on the Lorenz curve. It represents the ratio of the area between the line of perfect equality and the Lorenz curve to the area of the half-square in which the curve lies.

Based on the Gini coefficient, countries are classified into three levels of income inequality:

- Low income inequality: $\text{Gini} < 0.4$
- Moderate income inequality: $0.4 \leq \text{Gini} \leq 0.5$
- High income inequality: $\text{Gini} > 0.5$.

Compared to the Lorenz curve, the Gini coefficient overcomes its main limitation by quantifying the degree of income inequality. It is a convenient tool for comparing inequality across countries, regions, and different time periods.

3. LITERATURE REVIEW

3.1. The impact of urbanization on income inequality

Dossou (2023), using the Generalized Method of Moments (GMM) estimation technique in a study of 46 African countries from 1996 to 2020, provided evidence of an inverted U-shaped Kuznets relationship between urbanization and income inequality. The results indicated that in these countries, at the early stages of urbanization, income inequality tended to rise, reflecting income polarization during the transition from a rural-based to an urban-based economy. However, as urbanization advanced and economic and social development conditions improved, income inequality tended to decline. Similar findings were reported by Sulemana et al. (2019) in their study on the impact of urbanization on income inequality in 48 Sub-Saharan African countries.

Research conducted in specific countries has also shown a nonlinear Kuznets relationship. Dongjie et al. (2016), in their study of Chinese provinces from 1987 to 2010, found that inequality had been increasing since 1987 and might have peaked when the urbanization rate reached approximately 53%. This study also indicated that when a province's urbanization rate hit 50%, the Gini coefficient reached its threshold, after which inequality tended to decrease. However, within the urbanization range of 40% to 60%, income inequality remained high. This nonlinear relationship was further confirmed by studies such as Chen et al. (2016) in China, Nguyen et al. (2019), Do et al. (2023), and Nguyen et al. (2024) in Vietnam, as well as Akita (2024) in Indonesia.

Nevertheless, some studies have found no evidence of a nonlinear relationship between urbanization and income inequality. Krugman (1991) argued that urbanization exacerbates income inequality between rural and urban areas because economic concentration in urban centers leads to disparities in access to public services, education, healthcare, and overall quality of life. Ravallion (2001) noted that in many cases, urban development does not necessarily accompany poverty reduction or a decline in income inequality, due to uneven economic growth and insufficiently robust social safety net policies to mitigate the negative effects of urbanization. Duranton et al. (2004) reached similar conclusions in their study on urban economics and income distribution in large cities.

Wan et al. (2022), studying less-developed countries between 1990 and 2017, found that urbanization contributed to reducing income inequality. This research argued that the Kuznets

hypothesis overlooked the narrowing of income gaps between urban and rural areas before and after population redistribution, which led to misestimation of the turning point and the implementation of ineffective policies. Barrett et al. (2006) pointed out that urbanization enhances job accessibility, infrastructure development, and the growth of service and industrial sectors, thereby reducing income inequality. Similar results were reported by La Porta et al. (2008) in their study of several African countries and by Chenery (1967) in the context of the United States and Western Europe.

3.2. The impact of governance quality on income inequality

A substantial body of research suggests that poor governance can lead to the unfair distribution of resources and opportunities, thereby exacerbating income inequality (Mauro, 1995; Acemoglu & Robinson, 2012). Conversely, high-quality governance can promote social equity, reduce income disparities, and foster a more stable society (Olson et al., 1998).

One of the most evident effects of governance quality is the ability to control corruption—an important factor that can intensify income inequality. Corruption reduces access to basic public services such as education and healthcare for disadvantaged populations, further widening income gaps (Mauro, 1995). When corruption is effectively curbed, opportunities and resources are more equitably distributed, helping to narrow the income divide across social groups.

Governance quality also directly influences the provision of essential public services to low-income groups. Countries with strong governance can design inclusive public policies that enable disadvantaged groups to access development opportunities, thereby reducing income inequality (OECD, 2015). A World Bank (2017) study found that nations with high governance quality often possess well-developed education and healthcare systems, providing citizens from different social strata with relatively equal opportunities for advancement. In contrast, weak governance typically coincides with the absence of policies ensuring fair access to public services, leading to rising income disparities and entrenched structural inequalities (Transparency International, 2018).

Another critical factor is the capacity to implement fair taxation systems and effective income redistribution policies. Mauro (1995) found that countries with high-quality governance tend to implement equitable tax systems and carry out redistribution measures aimed at reducing income inequality. Good governance not only supports the maintenance of transparent taxation systems but also ensures that wealthy individuals contribute adequately to public finances, thereby narrowing income gaps (Acemoglu & Robinson, 2012). Conversely, in countries with weak governance, tax systems are often unfair or ineffective, leading to tax evasion and insufficient contributions from the wealthy, which further exacerbates inequality (OECD, 2015).

Moreover, countries with strong governance are better positioned to adopt policies that generate employment for low-income workers, improve the quality of education and healthcare, and facilitate poverty alleviation and participation in the economy (Acemoglu & Robinson, 2012). In contrast, poor governance or the absence of inclusive policies allows inequality to rise, as the wealthy continue to benefit disproportionately from economic growth while the poor

are left behind (Collier, 2007). Effective governance thus creates a conducive environment for sustainable development and helps mitigate income polarization.

3.3. Research gap

In general, previous studies have identified and assessed the impacts of urbanization and governance quality on income inequality. However, most prior research has only analyzed these two factors separately and examined their individual effects on income inequality, without considering the interaction between urbanization and governance quality. How good or poor governance quality influences the impact of urbanization on income inequality remains underexplored. This lack of examination reduces the comprehensiveness in understanding how urbanization affects inequality, especially in today's increasingly complex socio-economic context that requires appropriate government regulation.

Therefore, building upon and inheriting the findings from previous research, this study investigates *“The impact of urbanization and governance quality on income inequality of developing countries in Asia,”* with the aim of filling this gap.

4. RESEARCH METHODOLOGY

4.1. Research hypotheses and model

4.1.1. Research hypotheses

The study by Paolo Mauro (1995) indicated that the implementation of equitable systems and income redistribution policies in countries with high governance quality helps narrow the level of inequality in those countries. The research by Acemoglu & Robinson (2012) also agreed with this view, noting that implementing policies that create jobs for low-income workers can improve education quality, healthcare, and reduce poverty. Based on these studies, the research group proposes the following hypothesis:

Hypothesis 1 (H1): Governance quality has a negative impact on income inequality.

According to Kuznets (1955), urbanization in countries may lead to higher income inequality. He explained this by stating that the nature of income distribution in advanced economies is shaped by industrialization and urbanization, as economies shift from low-productivity agricultural sectors to higher-productivity sectors concentrated in urban centers, resulting in higher per capita productivity for urban residents compared to rural residents. This conclusion is supported by Sulemana et al. (2019). From this, the authors propose:

Hypothesis 2 (H2): Urbanization has a positive impact on income inequality.

According to Barro (2000), income inequality can improve if higher income levels lead to expanded access to education and healthcare, although this effect is not always apparent. Similarly, Kravis (1960) argued that continuous economic growth creates more employment opportunities, improves income distribution, and thus reduces overall inequality in society. From this, the group proposes:

Hypothesis 3 (H3): GDP per capita has a negative impact on income inequality.

The study by Xu et al. (2020) on the relationship between trade openness, foreign direct investment, and income inequality in Sub-Saharan countries showed that increased trade openness also leads to an increase in income inequality. Similar results were found for developing countries in the research by Aradhya et al. (2007). Hence, the authors propose:

Hypothesis 4 (H4): Trade openness has a positive impact on income inequality.

Li et al. (2016) argued that employment opportunities and income distribution can be improved if property rights and urban business development are supported by a good institutional framework. Enserink & Koppenjan (2017) also noted that reducing corruption promotes urban business development, thereby improving income inequality and poverty reduction. From this, the authors propose:

Hypothesis 5 (H5): The interaction term between urbanization and governance quality has a negative impact on income inequality.

According to Thomas et al. (2015), population changes can increase income inequality due to disproportionate wage increases caused by labor market shortages. Similarly, Zhiqiang Dong et al. (2017), in their study in China, found that population aging significantly increases income inequality. Therefore, the authors propose:

Hypothesis 6 (H6): Population aging has a positive impact on income inequality.

Bang et al. (2016) found that remittances increase household spending across all income distribution levels, with the most significant effects on poorer households. Therefore, remittances improve poverty and income inequality. Adams & Page (2005) also found that remittance inflows help reduce income disparities by increasing the income of low-income households. Thus, the authors propose:

Hypothesis 7 (H7): Remittances have a negative impact on income inequality.

Choi (2006) argued that FDI increases income inequality as its economic benefits are often unevenly distributed across society. Rafsanjani et al. (2014) also pointed out that the rise in inequality is partly due to the increase in FDI. Therefore, the authors propose:

Hypothesis 8 (H8): Foreign direct investment has a positive impact on income inequality.

According to Odusola et al. (2018), agriculture plays a multidimensional role in development, including promoting economic growth, creating jobs, contributing to value chains, reducing poverty, narrowing income gaps, ensuring food security, providing environmental services, and generating foreign exchange income. Nguyen (2011) also highlighted agriculture's role in reducing income inequality, particularly in the fisheries sector, as aquaculture production helps reduce poverty rates and narrow income gaps, although the impact is relatively small. From this, the authors propose:

Hypothesis 9 (H9): Agriculture has a negative impact on income inequality.

Jing et al. (2019) suggested that ASEAN countries should focus on IT innovation, particularly internet users, mobile phone subscribers, and fixed-line subscribers, to achieve economic growth and thus reduce income inequality. Investment in IT infrastructure promotes ICT cooperation and expansion, especially to address income inequality. From this, the authors propose:

Hypothesis 10 (H10): Information and communications technology has a negative impact on income inequality.

4.1.2. Research model.

Based on the previous studies of Dossou (2023), Nguyen et al. (2019), and Sulemana et al. (2019), the model is constructed as follows:

$$gini_{it} = \beta_1 + \beta_2 gq_{it} + \beta_3 urb_{it} + \beta_4 gdppc_{it} + \beta_5 trade_{it} + \beta_6 urb_{it_gq_{it}} + \beta_7 old_{it} \\ + \beta_8 remip_{it} + \beta_9 lnfdi_{it} + \beta_{10} agri_{it} + \beta_{11} ict_{it} + \varepsilon_{it}$$

In this study, the independent variables include governance quality (*gq*) and urbanization (*urb*), along with control variables such as GDP per capita (*gdppc*), trade openness (*trade*), population aging (*old*), remittances (*remip*), foreign direct investment (*lnfdi*), agriculture (*agri*), and information and communication technology (*ict*). In addition, the research employs an interaction variable between urbanization and governance quality (*urb_gq*).

First, the research team applies principal component analysis (PCA) to calculate the governance quality index based on six World Governance Indicators. Several necessary steps were taken to prepare the variables for regression. However, during the regression process, the model encountered multicollinearity involving the interaction variable *urb_gq* and the two variables *urb* and *gq*. To address this issue, the team standardized the *urb* and *gq* variables. The model was estimated using basic panel data estimation methods, including POLS, FEM, and REM, to test and detect any violations of regression assumptions. Through the Breusch–Pagan LM test and the Hausman test, results indicated that the random effects model (REM) was the most appropriate. Subsequently, several diagnostic tests were conducted to detect model defects, including the Wald test for heteroskedasticity and the Wooldridge test for autocorrelation. To address these issues, the authors employed robust standard errors using the Driscoll–Kraay method.

4.2. Data

4.2.1. Data collection method

The data used in this study were collected from secondary sources, with a sample size ranging from over 300 to more than 700 observations during the period from 2002 to 2022 for 36 developing countries in Asia. The dataset was primarily obtained from the World Development Indicators. However, due to the unavailability of data for some countries in certain years within the sample, only 273 observations were used to estimate the model.

Table 1: Variables in the Model

Source: Authors' compilation

Variable	Name of Variable	Symbol	Measurement	Unit	Source	Expected sign
Dependent Variable	Income Inequality	<i>gini</i>	Gini Coefficient		WDI	
Independent variables	Governance quality	<i>gq</i>	Principal Component Analysis (PCA)		WGI	-
	Urbanization	<i>urb</i>	Ratio of urban population to total population	%	WDI	+
	GDP per capita	<i>gdppc</i>	GDP per capita	USD	WDI	-
	Trade openness	<i>trade</i>	Total value of imports and exports of goods	%	WDI	+

Variable	Name of Variable	Symbol	Measurement	Unit	Source	Expected sign
			and services as a percentage of GDP			
	Population aging	old	Ratio of population aged 64 and above to total population		WDI	+
	Remittances	remip	Total remittances as a percentage of GDP	%	WDI	-
	Foreign direct investment	lnfdi	Logarithm of total foreign direct investment inflows to the country		WDI	+
	Agriculture	agri	Share of agricultural value added in GDP	%	WDI	-
	Information and communications technology	ict	Percentage of individuals using the internet to total population	%	WDI	-
Interaction variable	Urbanization × Governance quality	urb_gq	Product of the standardized values of urbanization and governance quality			-

4.2.2. Descriptive statistics

The descriptive statistics for the variables are presented in Table 2. The dataset covers 36 developing countries in Asia over a 21-year period from 2002 to 2022. However, data for some years and certain countries are missing. To address this issue, the authors removed observations with missing values for certain variables in specific years. Consequently, a balanced panel dataset was obtained, with the number of observations for the variables ranging from 305 to 756.

Although the number of observations varies considerably, the dataset remains reliable and valid for inference due to its wide spatial and temporal coverage, as well as the appropriate application of panel data models such as fixed effects. All necessary tests—including the Hausman test, Breusch-Pagan LM test, heteroskedasticity test, and autocorrelation test—were conducted to ensure the accuracy of the analytical results. Retaining the maximum number of available observations enhances the analytical power without compromising statistical

reliability, particularly given that a sample size exceeding 300 is generally sufficient to ensure robust statistical analysis.

Table 2: Descriptive Statistics of Variables

Source: Authors' compilation

Variabl e	Numbe r of Observation s	Mean	Standar d Deviation	Minimu m Value	Maximu m Value
gini	305	35,148	4,826	25,1	47,2
gq	756	0,009	1,025	-3,256	2,982
urb	756	53,125	21,693	14,24	92,763
gdppc	751	7088,0 2	10859,6 9	145,818	54930,94
trade	715	77,863	36,625	20,447	210,374
urb_gq	756	1,113	2,629	-3,469	12,391
old	756	6,77	4,492	0,172	29,925
remip	715	6,196	8,45	0	49,895
lnfdi	699	21,351	2,194	13,719	26,564
agri	740	12,95	9,182	0,628	54,528
ict	730	34,981	30,046	0	100

4.2.3. Correlation description

The correlation matrix between the variables is presented in Table 3 below.

Table 3: Correlation description

Source: Authors' compilation

Vari ab-le	gi ni	g q	u rb	g dppc	tr ade	u rb_gq	ol d	r emip	l nfdi	a gri	i ct
gini	1, 000										
gq	- 0,379	1, 000									
urb	0, 208	- 0,288	1, 000								
gdp pc	0, 151	- 0,407	0, 732	1, 000							
trad e	0, 017	- 0,006	- 0,131	- 0,179	1, 000						
urb _gq	0, 007	- 0,417	0, 477	0, 781	0, 025	1, 000					

Variable	gni	gq	urb	gdppc	trade	urb_gq	old	remip	lnfdi	agri	ict
old	0,121	-0,053	0,466	0,556	-0,123	0,380	1,000				
remip	-0,312	-0,075	-0,373	-0,34	0,298	0,004	-0,217	1,000			
lnfdi	0,336	0,042	0,333	0,351	-0,219	0,044	0,283	-0,515	1,000		
agri	-0,2	0,151	-0,745	-0,645	0,024	-0,288	-0,523	0,347	-0,543	1,000	
ict	-0,020	-0,057	0,583	0,598	-0,028	0,321	0,553	-0,143	0,318	-0,566	1,000

From this, it can be observed that the correlation level between the explanatory variables is below 80%, which means that there is no high multicollinearity among the explanatory variables. Therefore, the dataset used by the research team is relatively suitable for assessing the impact of urbanization and governance quality on inequality in developing countries in Asia.

5. RESEARCH RESULTS AND DISCUSSION

Bảng 4: Estimation and Testing Results

Source: Authors' compilation

Model	(1)	(2)	(3)	(4)
Variable	POLS	REM	FEM	XTSCC
gq	-2,0*** (0,235)	0,73* (0,454)	1,72*** (0,519)	-2,06*** (0,278)
urb	0,0** (0,021)	0,02 (0,040)	-0,030 (0,07)	0,044** (0,019)
gdppc	-0,0 (0,000)	-0,00 (0,000)	-0,000** (0,000)	-0,0000 (0,000)
trade	0,0*** (0,007)	-0,00 (0,010)	0,001 (0,010)	0,0249** (0,006) *
urb_gq	-0,5** (0,222)	0,20 (0,282)	0,236 (0,353)	-0,457* (0,233)
old	0,24*** (0,079)	-0,21 (0,150)	-0,331* (0,189)	0,243*** (0,079)
remip	-0,1*** (0,042)	-0,12*** (0,044)	- (0,0470)	- (0,047)
lnfdi	0,8*** (0,152)	0,58*** (0,169)	0,595*** (0,188)	0,823*** (0,107)
agri	0,1 (0,063)	0,03 (0,055)	0,05 (0,059)	0,098*** (0,032)

Model	(1)	(2)	(3)	(4)
ict	-0,0***	-0,04***	- 0,034***	- 0,0314***
	(0,012)	(0,009)	(0,010)	(0,010)
Intercept	12,6***	24,47***	28,259** *	12,687** *
	(4,557)	(4,417)	(4,66)	(3,2913)
Number of observations	273	273	273	273
Coefficient of determination (R-squared)	0,3821	0,3149	0,3315	0,4049
Number of instruments		32	32	
Number of groups				32
Omitted variable	0,3031			
Multicollinearity	3,2500			
Heteroskedasticity	0,3138			
Wald test			0,0000	
Wooldridge test			0,1826	

*Note: *, **, *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively.*

The estimation results of model (4) show that urbanization has a positive effect on income inequality, meaning that an increase in the urbanization rate contributes to worsening income inequality in developing countries in the Asian region. This finding is consistent with many previous studies, which argue that when urbanization increases rapidly without accompanying redistribution and governance policies, inequality tends to rise significantly. Specifically, the study by Kanbur & Zhang (1999) on inequality between rural and urban areas and between inland and coastal regions in China shows that rapid urbanization, accompanied by an increasing income gap between urban and rural areas, leads to greater income inequality. Urbanization in Southeast Asia also exhibits a similar trend, according to the 2012 annual report of the Asian Development Bank. The rapid urbanization process in countries such as the Philippines, Indonesia, and Thailand has put significant pressure on public service systems, in which local residents and the wealthy have easier access to economic opportunities compared to migrants from rural to urban areas. Moreover, these migrants often work in informal sectors with low and unstable incomes, thus contributing to widening the income gap in urban areas.

In contrast to the impact of urbanization, higher governance quality helps reduce income inequality. The negative coefficient of the governance quality variable implies that improving governance can lead to a more equitable distribution of economic benefits and development opportunities, particularly in the context of developing countries in Asia. This finding is consistent with the conclusion of Chong & Calderón (2000), which states that countries with

transparent governance systems, high accountability, and effective anti-corruption measures tend to experience lower income inequality. In China, the study by Li et al. (2016) also demonstrated that regions with more transparent governance and less corruption achieve lower levels of income inequality due to fairer asset distribution policies and better provision of public services.

The coefficient of the interaction term between urbanization and governance quality is negative, indicating that when governance quality is high, the impact of urbanization on income inequality tends to decrease. Specifically, in areas with effective governance, urbanization contributes less to income disparity compared to areas with poor governance quality. Good governance enables a fairer allocation of the economic benefits of urbanization, such as job opportunities, infrastructure investment, and public services, thereby supporting low-income groups and reducing income polarization. This finding supports the view of Li et al. (2016), which argues that strong institutions help protect property rights, support the growth of urban enterprises, and thereby improve employment opportunities and income distribution.

In addition, the control variables in the model also have important impacts on income inequality. Specifically, the trade openness variable has a positive estimated coefficient and is statistically significant, consistent with the study of Jaumotte & colleagues (2013), showing that international trade can increase income inequality, especially when the benefits from trade mainly concentrate on high-skilled groups or large enterprises. Similarly, the population aging variable also has a positive coefficient, indicating that the increase in life expectancy exacerbates income inequality due to the imbalance in employment opportunities among different age groups (Bloom & colleagues, 2010).

Regarding remittances, the results show a negative estimated coefficient, consistent with the study of Adams & Page (2005), indicating that remittance flows help reduce income disparities by increasing income for low-income households. Conversely, the positive relationship between foreign direct investment (FDI) and income inequality aligns with the conclusion of Choi (2006), who argued that FDI can increase income disparities because the economic benefits from FDI are not evenly distributed in society.

Moreover, the information and communication variable has a negative coefficient, indicating that the development of technology and communication can reduce income inequality by creating more opportunities for access to information and economic development for disadvantaged groups (Vu, 2020). Digital technology breaks down geographical barriers, supports the creation of new business, and facilitates easier access to finance. It also enhances the availability of information, goods and services, reaching less developed areas and vulnerable groups with limited connectivity, thereby increasing income and narrowing income gaps (Ahmed & Al – Roubaie, 2013).

The agricultural variable has a positive estimated coefficient—contrary to the research team’s initial expectation. However, this can be explained by the fact that economies reliant on agriculture often have low labor productivity, lack diversification in their economic structure, and heavily depend on manual labor. These characteristics can lead to low and uneven income levels among population groups, especially between rural and urban areas (Janvry & Sadoulet, 2000). The GDP per capita variable has a negative regression coefficient; although it is not

statistically significant, it still aligns with Barro's (2000) research, which suggests that higher income can improve equality through expanded access to education and healthcare, although this effect is not always clearly evident.

6. POLICY IMPLICATIONS

Income equality is closely linked to economic growth, both reflecting social development realities and serving as a driver for growth. Therefore, a reform roadmap is essential to steer this process towards a more effective and sustainable trajectory. Based on the research findings, the group proposes several recommendations for developing countries in the Asian region as follows:

First, governments and policymakers need to establish appropriate urban laws and policies in response to the increasing urbanization trend. They should ensure the fair allocation of resources, public services, and social welfare. For localities with low urbanization rates accelerating their urbanization process, it is necessary to combine other governance policy tools such as anti-corruption measures and legal regulations to prevent a severe increase in income inequality. Limiting unplanned and unmanaged urban sprawl is also essential.

Second, directing FDI opportunities evenly across localities by implementing diverse preferential tax rates and simplifying the tax system for new investment projects in specific sectors like information technology and manufacturing—especially in disadvantaged regions—will help exploit potential advantages, ensure social groups' access, increase income, and expand opportunities for advanced technology and information and communication access.

Third, the government can use ICT as a tool to reduce income inequality by expanding access, skills, and opportunities for people in rural areas. Universal and affordable broadband combined with subsidies for devices ensures that rural and low-income zones are not excluded from the digital economy. At the same time, promoting digital finance and e-government services makes it easier for vulnerable populations to access social benefits, healthcare and financial tools.

Fourth, promote an inclusive and sustainable labor market by establishing vocational training programs for youth and middle-aged workers, particularly in rural and minority areas where most residents are elderly and children living in hardship (e.g., Northeast China, North Africa, Cordillera in the Philippines). Develop a sustainable employment ecosystem, including policies supporting social enterprises, local startups, non-agricultural occupations tailored to each region, and appropriate sectoral restructuring.

Fifth, develop inclusive financial models that channel remittances from urban to rural areas, guiding remittance flows toward savings or effective investment consulting in production and business, especially for remittances sent from abroad to relatives in rural areas. This can help reduce the wealth gap between regions and create indirect income through asset accumulation.

Sixth, strengthen regional cooperation and share effective transformation models. Countries can learn from each other through regional forums such as ASEAN, regional economic promotion agreements, and FTAs that open many opportunities for developing Asian countries to share successful models in reducing inequality, such as Thailand's rural development model, microfinance programs in Bangladesh, or Vietnam's industrialization strategy.

7. CONCLUSION

Based on the analysis of the model illustrating the relationship between urbanization and institutional quality on income inequality in 36 developing countries in Asia during the period 2002–2022, the research results show that countries with higher levels of urbanization tend to have greater income gaps between rural and urban areas. However, when urbanization is combined with effective policies to improve governance quality, it has a positive impact on reducing income inequality. This suggests that policies should focus on improving governance quality.

Finally, the study still has some limitations that need to be addressed. First, the research did not analyze cultural and religious factors—elements that can strongly affect income inequality in developing Asian countries. For example, patriarchal mindsets, gender discrimination, or local cultural traditions may increase income inequality by limiting educational and employment opportunities for certain social groups. Second, the authors did not consider the impact of major global events, such as the COVID-19 pandemic, which has profoundly changed the socio-economic structure worldwide. These limitations should be addressed in future research to enhance the comprehensiveness and accuracy of the results.

REFERENCES

- Acemoglu, D., & Robinson, J. (2012). *Why nations fail: The origins of power, prosperity, and poverty*. Crown Business.
- Adams, R. H., & Page, J. (2005). Do international migration and remittances reduce poverty in developing countries? *World Development*, 33(10), 1645–1669.
- Ahmed, A. & Al – Roubaie, A. (2013). Poverty reduction in the Arab world: the use of ICTs. *World Journal of Science, Technology and Sustainable Development*, 10 (3), 195-211.
- Akita, T. (2024). Urbanization and income inequality (Working Papers EMS_2024_01). Research Institute, International University of Japan.
- Bang, J. T., Mitra, A., & Wunnava, P. V. (2016). Do remittances improve income inequality? An instrumental variable quantile analysis of the Kenyan case. *Economic Modelling*, 58, 394–402.
- Barro, R. (2000). Inequality and growth in a panel of countries. *Journal of Economic Growth*, March.
- Bloom, D., Canning, D., & Fink, G. (2010). Implications of population ageing for economic growth. *Oxford Review of Economic Policy*, 26(4), 583–612.
- Chen, G., Glasmeier, A. K., Zhang, M., & Shao, Y. (2016). Urbanization and income inequality in post-reform China: A causal analysis based on time series data. *PLoS ONE*, 11(7), e0158826.
- Chong, A., & Calderón, C. (2000). Causality and feedback between institutional measures and economic growth. *Economics & Politics*, 12(1), 69–81.
- Chenery, H. B. (1967). Foreign assistance and economic development. In J. H. Adler (Ed.), *Capital movements and economic development* (pp. 268–292). London: Palgrave Macmillan UK.
- Collier, P. (2007). *The bottom billion: Why the poorest countries are failing and what can be done about it*. Oxford University Press.
- Do, Q. A., Nguyen, T. V., & Nguyen, T. T. D. (2024). Urbanization and income inequality in Vietnam: An empirical investigation at provincial level. *Thailand and The World Economy*, 42(3), 61–78.
- Dong, Z., Tang, C., & Wei, X. (2018). Does population aging intensify income inequality? Evidence from China. *Journal of the Asia Pacific Economy*, 23(1), 66–77.
- Dossou, T. A. M. (2023). Income inequality in Africa: Exploring the interaction between urbanization and governance quality. *Social Indicators Research*, 167(1), 421–450.
- Duranton, G., & Puga, D. (2004). Micro-foundations of urban agglomeration economies. In J. V. Henderson & J.-F. Thisse (Eds.), *Handbook of regional and urban economics* (Vol. 4, pp. 2063–2117). Elsevier.
- Enserink, B., & Koppenjan, J. (2007). Public participation in China: Sustainable urbanization and governance. *Management of Environmental Quality: An International Journal*, 18(4), 459–474.

Harris, J. R., & Todaro, M. P. (1970). Migration, unemployment and development: A two-sector analysis. *The American Economic Review*, 60(1), 126–142.

Hoàng, P. T. (2024). Đánh giá tác động của bất bình đẳng thu nhập đến tăng trưởng kinh tế ở các tỉnh thành Việt Nam giai đoạn 2018-2022 [Assessment of the impact of income inequality on economic growth in Vietnamese provinces, 2018-2022]. *FTU Working Papers Series*, 1(1).

Hung, N. T., et al. (2020). Relationship between government quality, economic growth and income inequality: Evidence from Vietnam. *Cogent Business & Management*, 7(1), 1736847.

Janvry, A., & Sadoulet, E. (2000). Growth, poverty, and inequality in Latin America: A causal analysis, 1970–94. *Review of Income and Wealth*, 46(3), 267–287.

Jaumotte, F., Lall, S., & Papageorgiou, C. (2013). Rising income inequality: Technology, or trade and financial globalization? *IMF Economic Review*, 61, 271–309.

Jing, A. H. Y., Ab-Rahim, R., & Ismail, F. (2019). Information and communication technology (ICT) and income inequality in ASEAN-5 countries. *International Journal of Academic Research in Business and Social Sciences*, 9(9), 359–373.

Kaufmann, D., Kraay, A., & Mastruzzi, M. (2010). The worldwide governance indicators: Methodology and analytical issues (World Bank Working Paper Series No. 5430).

Kravis, I. B. (1960). International differences in the distribution of income. *The Review of Economics and Statistics*, 42(4), 408–416.

Krugman, P. (1992). *Geography and trade*. MIT Press.

La Porta, R., & Shleifer, A. (2008). The unofficial economy and economic development. National Bureau of Economic Research Working Paper Series.

Li, B., Chen, C., & Hu, B. (2016). Governing urbanization and the new urbanization plan in China. *Environment and Urbanization*, 28(2), 515–534.

Mauro, P. (1995). Corruption and growth. *Quarterly Journal of Economics*, 110(3), 681–712.

McGranahan, G., & Satterthwaite, D. (2014). Urbanisation concepts and trends. IIED.

Nguyen, M. H., Nguyen, D. L., & Pham, T. K. (2019). The impact of urbanization on income inequality: A study in Vietnam. *Journal of Risk and Financial Management*, 12(3), 146.

Nguyễn Thị Hoài T. (2024). Tác động của đô thị hóa đến bất bình đẳng thu nhập: Nghiên cứu với dữ liệu cấp tỉnh ở Việt Nam [The impact of urbanization on income inequality: A provincial-level study in Vietnam]. *Tạp chí Kinh tế và Phát triển*, 12–20.

Olson, M., et al. (1998). *Power and prosperity: Outgrowing communist and capitalist dictatorships*. Basic Books.

Rafsanjani, H., et al. (2014). Studying the effect of education, trade, and FDI on income inequality in Iran. *Management and Administrative Sciences Review*, 3, 733–745.

Ravallion, M. (2001). Growth, inequality and poverty: Looking beyond averages. *World Development*, 29(11), 1803–1815.

Sulemana, I., et al. (2019). Urbanization and income inequality in Sub-Saharan Africa. *Sustainable Cities and Society*, 48, 101544.

Vu, K., Hoang, D., & Doan, N. (2020). Information and communication technologies and inequality: Cross-country evidence. *Telecommunications Policy*, 44(2), 101876.

Wan, G., Zhang, X., & Zhao, M. (2022). Urbanization can help reduce income inequality. *npj Urban Sustainability*, 2(1), 1.

Wu, D., & Rao, P. (2017). Urbanization and income inequality in China: An empirical investigation at provincial level. *Social Indicators Research*, 131, 189–214.

Xu, C., et al. (2021). Trade openness, FDI, and income inequality: Evidence from sub-Saharan Africa. *African Development Review*, 33(1), 193–203.

Zhang, X., & Kanbur, R. (1999). Which regional inequality? The evolution of rural–urban and inland–coastal inequality in China from 1983 to 1995. *Journal of Comparative Economics*, 27, 686–701.

Asian Development Bank (ADB). (2012). *Asian development outlook 2012: Confronting rising inequality in Asia*. <https://www.adb.org/publications/asian-development-outlook-2012-confronting-rising-inequality-asia>

Ministry of Construction (2024). Phát triển đô thị Việt Nam – những vấn đề đặt ra trong giai đoạn tới [Urban development in Vietnam – Issues ahead]. <https://moc.gov.vn/tl/tin-tuc/74077/phat-trien-do-thi-viet-nam-nhung-van-de-dat-ra-trong-giai-doan-toi.aspx>

Ha Nam Provincial Portal (2023). Nâng cao hiệu quả kiểm soát tham nhũng trong khu vực công ở Việt Nam hiện nay [Improving corruption control effectiveness in Vietnam's public sector]. <https://tth.hanam.gov.vn/Pages/nang-cao-hieu-qua-kiem-soat-tham-nhung-trong-khu-vuc-cong-o-viet-nam-hien-nay.aspx>

OECD. (n.d.). Income inequality. <https://www.oecd.org/en/data/indicators/income-inequality.html>

OECD. (n.d.). In it together: Why less inequality benefits all. https://www.oecd.org/en/publications/2015/05/in-it-together-why-less-inequality-benefits-all_g1g554a1.html

Open Development Vietnam. (2024). Đô thị hóa ở Việt Nam [Urbanization in Vietnam]. <https://vietnam.opendevelopmentmekong.net/vi/topics/urbanization-in-vietnam/>

Quản lý Nhà nước Journal. (2020). Tiếp tục đổi mới tổ chức và hoạt động của Chính phủ theo hướng tinh gọn, hiệu lực, hiệu quả [Continuing to innovate government organization and operations towards lean, effective governance]. <https://www.quanlynhanuoc.vn/2020/05/26/tiep-tuc-doi-moi-to-chuc-va-hoat-dong-cua-chinh-phu-theo-huong-tinh-gon-hieu-luc-hieu-qua/>

General Statistics Office of Vietnam (2021). Xu hướng bất bình đẳng trong phân phối thu nhập ở Việt Nam giai đoạn 2016-2020 [Trends in income distribution

inequality in Vietnam, 2016-2020]. <https://www.gso.gov.vn/du-lieu-va-so-lieu-thong-ke/2021/06/xu-huong-bat-binh-dang-trong-phan-phoi-thu-nhap-o-viet-nam-giai-doan-2016-2020/>

Transparency International. (2018). Corruption perceptions index 2018. <https://www.transparency.org/en/publications/corruption-perceptions-index-2018>

World Bank. (2002). *World development report 2002: Building institutions for markets*. <https://documents.worldbank.org/en/publication/documents-reports/documentdetail/850161468336075630/world-development-report-2002-building-institutions-for-markets>

World Bank. (2021). A Kuznets curve for intergenerational mobility. <https://blogs.worldbank.org/en/developmenttalk/kuznets-curve-intergenerational-mobility>