

GOVERNANCE ON MULTIDIMENSIONAL POVERTY: THE CASE D-8 COUNTRIES

A Thesis

**Submitted to the Master's Study Program of Economics at the Faculty
of Economics and Business in partial fulfillment of the requirements
for the degree of**

Master of Arts (M.A.)



by:

Chikara Nurilmi Syam

0321221002

UNIVERSITAS ISLAM INTERNASIONAL INDONESIA

DEPOK

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ABSTRACT

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The research aims to identify the characteristics of Good Governance that could potentially alleviate Multidimensional Poverty, as suggested by the Worldwide Government Indicators (WGI) proxy. It is also intended that this research will serve as a useful tool for D-8 officials and other policymakers in order to develop policies aimed at improving governance in the D-8 Organization for Economic Cooperation member countries. Using the Panel Data Analysis, the research determines the impact of governance on multidimensional poverty in the D-8 countries compared to other countries. Using data over the period of 2009 to 2022 from the World Bank Group for both dependent and independent variables. It was discovered that in the case of D-8 countries, only Political Stability and Absence of Violence, and Control of Corruption have proven to be able to mitigate Multidimensional Poverty while Voice and Accountability have proven to worsen Multidimensional Poverty in D-8 countries.

Keywords: *Good Governance, Multidimensional Poverty, D-8 Organization for Economic Cooperation*

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

لِحَمْدِ اللَّهِ رَبِّ الْعَالَمِينَ

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ABBREVIATION DIRECTORY

AFM	: <i>Average Family Income</i>
BEA	: <i>Bureau of Economic</i>
CC	: <i>Control of Corruption</i>
CEPI	: <i>Centre d'Etudes Prospectives et d'Informations Internationales</i>
D-8 Countries	: <i>The Developing Eight Organization for Economic Cooperation</i>
DESA-UN	: <i>United Nations Department of Economic and Social Affairs</i>
ESCAP	: <i>Economic and Social Commission for Asia and the Pacific</i>
FAO	: <i>Food and Agriculture Organization of United Nations</i>
FDI	: <i>Foreign Direct Investment (FDI)</i>
FEM	: <i>Fixed Effects Model</i>
GDP	: <i>Gross Domestic Product</i>
GIRG	: <i>Global Indices for Reform and Growth</i>
HPI	: <i>Human Poverty Index</i>
IMF	: <i>International Monetary Fund</i>
ISIC	: <i>International Standard Industrial Classification</i>
IWDA	: <i>International Women's Development Agency</i>
MPM	: <i>Multidimensional Poverty Measure</i>
VA	: <i>Voice and Accountability</i>
PV	: <i>Political Stability and Absence of Violence</i>
UNDP	: <i>United Nation Development Programme</i>
OPHI	: <i>Oxford Poverty and Human Development Initiative</i>
MNCs	: <i>Multinational Corporations</i>
MPI	: <i>Multidimensional Poverty Index</i>
MPM	: <i>Multidimensional Poverty Measure</i>
OECD	: <i>Organization for Economic Co-operation and Development</i>
OHCHR	: <i>Office of the High Commissioner for Human Rights</i>
OLS	: <i>Ordinary Least Squared</i>
OPHI	: <i>Oxford Poverty and Human Development Initiative</i>
Pooled OLS	: <i>Pooled Ordinary Least Squared</i>
PPP	: <i>Purchasing Power Parity</i>
PV	: <i>Political Stability and Absence of Violence</i>
REM	: <i>Random Effects Model</i>
SCO	: <i>Shanghai Cooperation Organization</i>
SDG	: <i>Sustainable Development Goal</i>
UCLG-ASPAC	: <i>United Cities and Local Governments Asia-Pacific</i>
UN	: <i>United Nations</i>
UNDP	: <i>United Nation Development Programme</i>
UNIDO	: <i>United Nations industrial Development Organization</i>
USD	: <i>United States Dollar</i>
VA	: <i>Voice and Accountability</i>
WDI	: <i>World Development Index</i>
WGI	: <i>Worldwide Governance Indicators</i>
WHO	: <i>World Health Organization</i>

CHAPTER 1

INTRODUCTION

1.1. Research Background

In the past, wealth or income was frequently the only factors used to determine poverty. This basic definition defines poverty as the condition in which an individual's daily income is less than a certain amount, typically \$1 or \$2. However, this idea is unable to capture the more substantial, more complex image of poverty that encompasses the various difficulties that both individuals and communities experience.

This lack of poverty concept has been acknowledged by some scholars as they redraw the concept of poverty to identify the main factors of poverty. The understanding of poverty itself has been completed by the concept of Multidimensional Poverty. The concept of multidimensional poverty encompasses a comprehensive understanding of poverty that goes beyond the traditional focus on monetary income. It recognizes that poverty is a multifaceted issue that affects various aspects of an individual's life, including health, education, living standards, and social participation (D'Attoma & Matteucci, 2023).

With an emphasis on supporting the UN's Sustainable Development Goal (SDG) No. 1, UNDP & OPHI back in 2010 developed an index named Multidimensional Poverty Index (MPI). Yet this MPI is forgetting one crucial component, which is monetary poverty. The World Bank developed another measure, but this time it included monetary poverty less than \$2.15 per day, or the international poverty line at 2017 PPP (Purchasing Power Parity), as one of the dimensions. The Alkire-Foster technique served as advice, and the MPI served as inspiration. With this complete definition of poverty, many people who were not classified as multidimensionally poor before are now identified (Diaz-Bonilla, Sabatino, Wu, & Nguyen, 2023).

As Multidimensional Poverty concept is still on its way to being more known in public, there are still some aspects from external sources that can cause

or worsen the individual's or community's conditions to poverty. When the scope is widened, there is a socioeconomic development theory found by Ibn Khaldun back in 14th-century. In his book “*Muqaddimah*”, Ibn Khaldun defined poverty as a result of a decline in political community and lack of democracy, leading to various evils (Mafrudlo et al, 2023). Poverty is influenced by moral, intellectual, social, demographic, and political factors (Chapra, 1999). Solutions to poverty should balance economic and social improvements.

In modern era, Kaufmann came as in justified Ibn Khaldun’s theory with the concept of Good Governance Theory. The study by Kaufmann et al. (2010) emphasizes the importance of good governance in reducing poverty. Good governance, as defined by Kaufmann et al., encompasses several key dimensions, including Voice and Accountability, Political Stability and Absence of Violence, and Control of Corruption. These elements are essential for fostering a stable and equitable society, which in turn can significantly impact the levels of multidimensional poverty. With here to say, the government must play a crucial role in ending poverty, ensuring fairness, and addressing the cycle of poverty or more specific, Multidimensional Poverty.

Every country in the globe, with its unique system of governance, has its own approach to addressing domestic issues, chief among them being poverty. The importance of good governance in the D-8 member states cannot be understated. With 7.6 million square kilometres of land, or 5% of the world's land area, and a total population of about 1.2 billion, or almost 13 percent of the world's population, the D-8 Organization for Economic Cooperation faces unique challenges in their governance structures, which can have a significant impact on their levels of poverty (Tehran Times, 2010).

The governance systems of the D-8 members—Bangladesh, Egypt, Indonesia, Iran, Malaysia, Nigeria, Pakistan, and Turkey—vary, potentially resulting in disparate outcomes. In Indonesia, the five-year term of the president is chosen directly by the populace. Iran is an Islamic republic with a theocratic government. The President, who is chosen by the Assembly of Experts to serve a life term, is in charge of the administration and is chosen by popular vote. Pakistan's federal legislative democratic republic is led by a multiparty form of government.

The President is the head of state for a five-year term, appointed by the Parliament. Not to mention, Turkey is a parliamentary democracy with multiple parties. The head of state is the President, who is elected for a five-year term by the people.

In recent years, these countries have implemented various initiatives aimed at improving governance and reducing poverty. For instance, after implementing laws to strengthen accountability and transparency, Indonesia has made great progress in strengthening its governance, notably in the areas of political stability and the fight against corruption. Iran, on the other hand, has had severe political unrest and problems with corruption, which have impeded its economic growth and made poverty worse. In light of this, Iran has taken action against corruption.

Pakistan has seen instability in politics and corruption, both of which have raised the country's multidimensional poverty rates. Pakistan has started initiatives to strengthen the rule of law and its regulatory framework in order to achieve this. Turkey's attempts to reduce poverty and promote economic progress have been hampered by periods of political instability and corruption. Turkey's government has concentrated on enhancing its governance procedures and fortifying its institutions in order to achieve this.

Despite the importance of good governance in addressing multidimensional poverty, many D-8 countries continue to face significant challenges in addressing this issue. The impact of governance on multidimensional poverty in these countries is not well understood, particularly in the context of the diverse governance structures and levels of development within the D-8 countries. This thesis aims to investigate the relationship between governance indicators (Voice and Accountability, Political Stability, and Control of Corruption) and multidimensional poverty in the D-8 countries, using the Multidimensional Poverty Measure (MPM) from the World Bank. The study seeks to identify the specific governance factors that contribute to the reduction of multidimensional poverty in D-8 countries and compared the result globally to provide insights into policy interventions that can effectively address this issue.

1.2. Research Questions

With the background research mentioned above, this research aims to investigate the following research topics:

- a. What is the impact of Voice and Accountability on the alleviation of Multidimensional Poverty in D-8 countries compared to the global?
- b. What is the impact of Political Stability and Absence of Violence on the alleviation of Multidimensional Poverty in D-8 countries compared to the global?
- c. What is the impact of Control of Corruption on the alleviation of Multidimensional Poverty in D-8 countries compared to the global?

1.3. Research Objective

The following objectives are outlined in this study in order to provide thorough answers to the research questions:

- d. To analyse the impact of Voice and Accountability on the alleviation of Multidimensional Poverty in D-8 countries compared to the global.
- e. To analyse the impact of between Political Stability and Absence of Violence on the alleviation of Multidimensional Poverty in D-8 countries compared to the global.
- f. To analyse the impact of Control of Corruption on the alleviation of Multidimensional Poverty in D-8 countries compared to the global.

By completing these goals, the research hopes to discover which components of governance in the nations that make up the D-8 Organization for Economic Cooperation both cause and worsen multidimensional poverty. To determine the governance performance that affects the Multidimensional Poverty Measure (MPM) in the D-8 Organization for Economic Cooperation member countries. To determine whether the governance factors tested generate the same results with D-8 member countries, the factors will also be compared to those of other member countries.

1.4. Research Hypothesis

As per the previously mentioned research questions and research objective, the following hypotheses are the focus of this thesis:

Hypothesis 1: Voice and Accountability and Multidimensional Poverty.

The increased score of Voice and Accountability with a decrease in Multidimensional Poverty within D-8 countries.

Hypothesis 2: Political Stability and Absence of Violence and Multidimensional Poverty.

The increased score of Political Stability and Absence of Violence with a decrease in Multidimensional Poverty within D-8 countries.

Hypothesis 3: Control of Corruption and Absence of Violence and Multidimensional Poverty

The increased score of Control of Corruption with a decrease in Multidimensional Poverty within D-8 countries.

By examining these hypotheses, this thesis aims to assess the relationships between governance that are assumed to be able to be reduced with the Multidimensional Poverty Measure (MPM) in the Developing 8 Organization of Economic Cooperation countries. The findings will contribute to a deeper understanding of factors impacting multidimensional poverty and provide insights for policymakers and practitioners on how to reduce multidimensional poverty effectively.

1.5. Research Significance

The goal of the study is to close the gap in multidimensional studies of poverty. By examining these topics, this study can make a substantial contribution to the field by offering insightful analysis and practical suggestions to aid in the reduction of multidimensional poverty in D-8 countries. This research offers a number of countries to explore the patterns that form and possible root causes of multidimensional poverty in these countries, since previous studies have mostly concentrated on studying multidimensional poverty in one or two countries. Particularly considering that the D-8 countries are made up of two distinct income categories. Thus, these are the advantages of this research:

1. For Academia and Scholars

In the instance of the D-8 countries, this research can offer new perspectives into how governance affects multidimensional poverty. Additionally, by using proxies from the Worldwide Government Indicators (WGI) with Multidimensional Poverty in D-8 countries. With a more thorough and

comprehensive viewpoint, perhaps this study will act as a guide and source of inspiration for future research.

2. For Policymakers and the D-8 Organization of Economic Cooperation

This research gives information for policymakers on which aspects needed to be more focused on in order to reduce multidimensional poverty in D-8 countries through the regulations between the organizations in order to reach the goals of UNDP's Sustainable Development Goals (SDGs) No. 1 Poverty Alleviations.

1.6. Thesis Outline

There are five chapters in this thesis. The reader is given direction in understanding the issues that form the central point of this argument by Chapter 1. This chapter is explained in a methodical way, beginning with the problem's introduction, formulation, objectives, benefits of research, and writing strategy. The theoretical basis and conceptual framework, which are in alignment with the topics to be covered, are covered in Chapter 2. A variety of sources, such as international journals, annually reports, or official reports retrieved from official institutions and government websites, are used to gather the theoretical foundation, also known as a literature study. Past research from foreign journals is presented next. The problem assumptions and the framework are presented at the end of this chapter.

The problem analysis research approach is covered in Chapter 3. Research methodologies, variable identification, types of data and sources, data collection procedures, and analysis techniques are all included in the research method. Chapter 4 covers the fundamental definition of the research object, the variables used in the investigation, and the presentation of the research findings. Results include statistical tests, model analysis and hypothesis testing, estimation model selection, hypothesis validation, and a comprehensive description of the research findings. Chapter 5 covers the final portion of writing research results, along with recommendations for policy based on research findings and conclusions that address issues addressed.

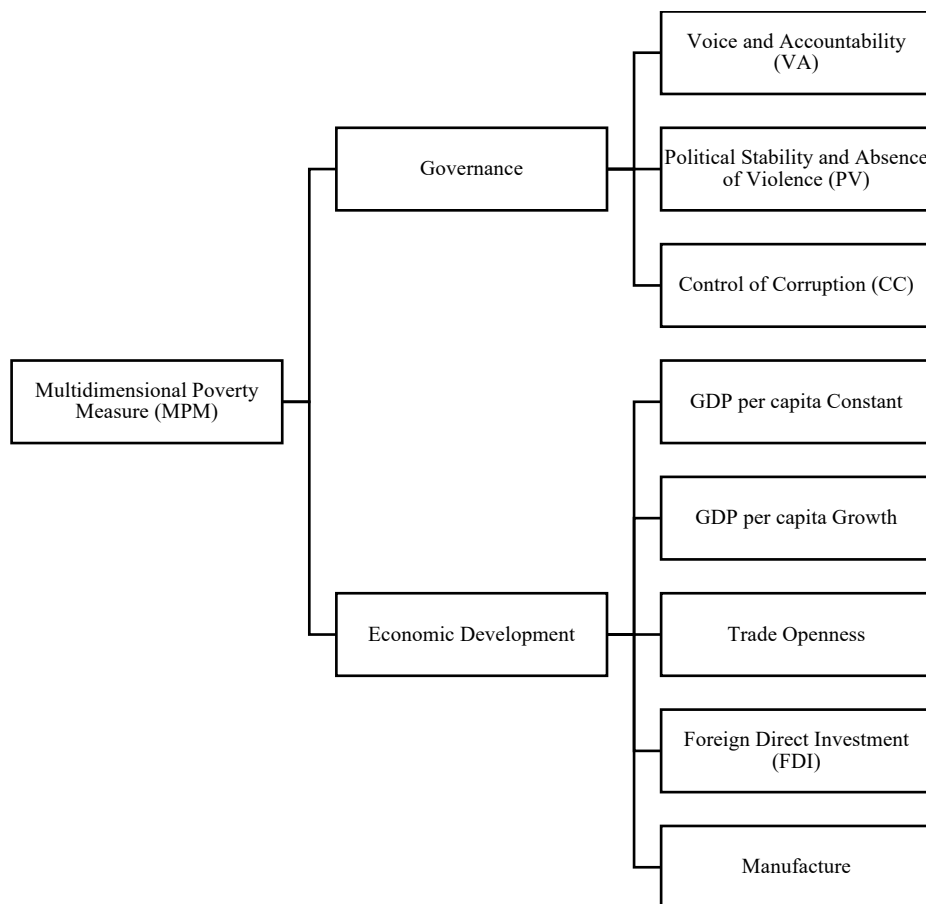
CHAPTER 2

LITERATURE REVIEW

2.1.Theoretical Framework

The literature review of the study consists of a theoretical framework and previous research from three proxies of Worldwide Governance Indicators (WGI). For the dependent variable, multidimensional poverty will be represented by the Multidimensional Poverty Measure (MPM). Additional factors are also included as control variables, which are derived from World Development Indicators (WDI).

Figure 2.1 Research Framework



Source: Kaufmann et al. (2010) & World Bank (2024)

The main base of theory to extend this study is the Good Governance Theory by Kaufmann et al (2010), which is studied through these independent

variables. The theoretical framework of this research contains Worldwide Governance Indicators (WGI), which are Voice and Accountability, Political Stability and Absence of Violence, and Control of Corruption.

2.1.1. Good Governance

The broad concept of "good governance" includes the ways in which authority is used to manage public resources and uphold human rights. It is frequently employed to evaluate the efficacy of various political and economic institutions (ESCAP, 2009; UCLG-ASPAC, 2021). The process of controlling and handling public affairs and resources in a way that is devoid of abuse, corruption, and with proper regard for the rule of law is referred to as good governance theory. It covers numerous aspects of good governance, such as the standard of institutions, the application of the law, accountability, openness, and resource management. According to Banerji (2015), the World Bank describes good governance as inclusive, equitable, responsive, transparent, accountable, consensus-oriented, participatory, and efficient. It aims to guarantee that corruption is kept to a the very least, minority perspectives are taken into account, and the perspectives of the most disadvantaged members of society are heard during the decision-making process.

Promoting economic development, alleviating poverty, and enhancing people's overall well-being all depend on effective governance (Gisselquist, 2012). Good governance is considered essential for achieving sustainable development and ensuring that human rights are respected and protected. It is linked to the realization of various human rights, including the right to health, education, and personal security (OHCHR, 2024).

Effective governance can also contribute to economic development, poverty reduction, and social justice (UCLG-ASPAC, 2021; Gisselquist, 2012). Implementing good governance requires a multifaceted approach that involves institutions, processes, and practices. It involves ensuring that institutions are accountable, transparent, and responsive to the needs of the people. Local governments play a crucial role in implementing good governance principles, as they are closest to the communities they serve (UCLG-ASPAC, 2021; OHCHR, 2024).

The Worldwide Governance Indicators (WGI) will serve as a proxy for the variables in this study that will be utilized to measure effective governance. The World Bank's Worldwide Governance Indicators (WGI) project assesses governance quality across three particular dimensions. These indicators are based on perceptions of governance quality from many data sources and are designed to provide a comprehensive picture of governance quality across countries.

The Worldwide Governance Indicators (WGI) have been used previously to measure good governance in research (Thomas, 2006). According to the World Health Organization (WHO), the WGI has added to the expanding body of empirical research on governance and is generally acknowledged as a useful tool for evaluating the quality of governance. Policymakers, civil society organizations, aid donors, and academics around the world generally agree that good governance has an impact on development and is necessary for all human rights to be realized, sustainable development, and continuous economic growth (WHO, n.d.).

Kauffman & Kraay (2010), the WGI's creators, purposefully designed it to help analysts and researchers spot broad patterns in how people perceive governance over time as well as across national boundaries. Development requires good governance since it enhances economic growth, fosters the development of human capital, and reinforces social cohesiveness in nations.

The WGI's dimensions of governance encompass the fundamental components of sound governance and offer an all-encompassing structure for evaluating the quality of governance. The WGI compiles information from more than 30 organizations globally, representing the various perspectives on governance held by several stakeholders, including tens of thousands of experts and survey participants. The complexity of governance and its effects on development are better understood thanks to this varied viewpoint.

Studies done with the WGI demonstrate that development can be significantly benefited by effective governance. Evidence from both developed and developing nations indicates that excellent governance can have a major positive influence on growth. For instance, industrialized nations with greater

levels of corruption also have higher budget deficits (Kaufmann & Kraay, 2023). From this, the conclusion is the WGI provide a robust framework for assessing governance quality and can be used to represent the good governance theory.

2.1.1.1.Voice and Accountability (VA)

The Voice and Accountability (VA) dimension of the Worldwide Governance Indicators (WGI) assesses a nation's degree of media freedom, freedom of expression, and ability of its people to participate in government. Since it encompasses the fundamentals of both democratic governance and citizen participation, this dimension is a crucial part of the good governance paradigm. The fundamental components—such as laws and regulations for organizations that advocate for rural residents—showcase the level of government accountability and the ability of citizens to participate in governance. The legislative frameworks that guarantee rural people's groups' autonomy and their capacity to take part in governance and decision-making processes are evaluated in this component.

The electoral index is located next to it. This part assesses the election's fairness and openness to make sure the public has a significant say in choosing their leaders. Voice and Accountability also reflects residents' judgments of how well and equitably their democratic institutions are working, which includes their level of satisfaction with democracy. The degree to which people believe their legislative bodies are responsive to their demands and accountable to them is reflected in their level of trust in Parliament.

To guarantee that the public is aware of the expenditure of public monies, the open budget index evaluates the accessibility and transparency of government budgets. Naturally, Voice and Accountability considers the freedom of association when assessing the degree to which individuals are allowed to organize and join groups to promote their interests and take part in political life. In addition, the Freedom of Expression index assessed how free residents are to voice their thoughts and participate in public debate without worrying about retaliation. To guarantee that the public has access to a wide

range of objective information, the final one, free media, evaluates the degree of independence and freedom of the media.

Because it emphasizes the value of citizen participation and responsibility in governance, the Voice and Accountability dimension is essential to the notion of good governance. Effective institutions are important, but also is the degree to which the public can interact with and hold such institutions responsible for their actions. This crucial component of governance is encapsulated by the Voice and Accountability dimension, which highlights the necessity of accountability, openness, and public involvement in decision-making processes. The Voice and Accountability proxy is intended to give a holistic picture of governance quality across nations.

Greater scores on the Voice and Accountability proxy indicate greater quality governance. The VA proxy is rated on a range of 0 to 100. WGI-based research has consistently demonstrated that nations with higher Voice and Accountability scores typically have more developed economies and better economic outcomes. According to Kaufmann and Kraay's study, for instance, nations with higher Voice and Accountability scores typically have better economic performance and lower levels of corruption.

Similar to this, Kaufmann and Kraay's 2023 study found a favorable relationship between Voice and Accountability scores with advancements in both human development and the economy. Throughout the years, South Africa is one nation that has significantly improved its Voice and Accountability proxy. South Africa's Voice and Accountability score grew from 64 in 2013 to 78 in 2021, according to the WGI, indicating increases in media quality, freedom of expression, and citizen participation.

Many reasons, like as the nation's democratic transition, the bolstering of institutions, and the advancement of human rights, are credited with this progress in Voice and Accountability. The formation of the Independent Electoral Commission and the encouragement of media freedom are two examples of actions the government has put into place to increase public engagement (Leogrande, 2023).

2.1.1.2. Political Stability and Absence of Violence (PV)

A crucial component of effective administration is Political Stability and Absence of Violence (PV), a measure of public opinion on the likelihood that violent or unconstitutional means, like terrorism and politically motivated violence, will be employed to overthrow the government or create instability (Kaufmann et al., 2010). The Political Stability and Absence of Violence proxy is used by both the World Bank's Worldwide Governance Indicators (WGI) project and the FAO Suite of Food Security Indicators.

Higher scores on the PV proxy, which range from 0 to 100, indicate higher quality governance. The highest score, which indicates a high level of political stability and absence of violence, represents the best conditions. This component assesses the stability of a country's political system in addition to the likelihood of violent political instability (Handoyo, 2023; globalEDGE, n.d.). Because it emphasizes how important political stability and the absence of violence are to maintaining successful government, the political stability and absence of violence factor is essential to the notion of good governance.

Good governance depends equally on the political environment's stability and the effectiveness of its institutions. Violence and political instability have the power to weaken political authority and obstruct economic expansion. A country's political system's stability and the probability of violent political upheaval are reflected in several important components that make up the Political Stability and Absence of Violence dimension.

For example, Political Stability and Absence of Violence evaluates the possibility that the government will be overthrown through unlawful means, such as terrorism and political violence (Handoyo, 2023; GIRG, 2021). Assuring a stable political climate, the absence of violence will gauge how free a nation is from terrorism and political violence (Handoyo, 2023; globalEDGE, n.d.).

Studies employing the WGI have persistently demonstrated that nations with higher political stability and violence-free ratings also typically have more developed economies. In their study, Kaufmann and Kraay, for instance, discovered that nations with higher scores for political stability and violence

absence typically have lower levels of corruption and stronger economies (Handoyo, 2023; Kaufmann & Kraay, 2023).

Overall, the Political Stability and Absence of Violence factor in the WGI is a significant component of the good governance theory since it integrates the basics of both political stability and the absence of violence. It emphasizes how crucial stable political conditions are to maintaining good governance and long-term growth.

2.1.1.3. Control of Corruption (CC)

Control of Corruption is a critical component of good governance theory that emphasizes the importance of preventing and combating corruption in all its forms. A major barrier to good governance is corruption, which can destroy individuals' confidence in their government, threaten the rule of law, and slow the growth of the economy (Lustrilanang, et al., 2023). The Worldwide Governance Indicators (WGI) Control of Corruption (CC) dimension measures perceptions of the degree to which public power is used for private gain, encompassing both the corrupter (usually a private citizen or firm) and the corrupted (usually a public official or politician) for the rules that govern their interactions. According to the definition, this constitutes a failure of governance (Kaufmann et al. 2003).

This dimension is a crucial component of the good governance theory, as it highlights the importance of reducing corruption in ensuring effective governance and sustainable development. Several important elements that indicate the degree of corruption will be found in the Control of Corruption aspect Perceptions of Corruption: This section evaluates how the general public, corporations, and experts view corruption. Next to that, Corruption in Public Sector. This section assesses the level of fraud, theft, and other forms of corruption in the wider public sector. Not only private, but also Corruption in Private Sector.

The ability of institutions to generate an atmosphere that supports the development and expansion of the economy is just as important to good governance as their efficacy. The Control of Corruption dimension highlights the importance of Reducing Corruption, Promoting Transparency and

Accountability, Protecting Property Rights, and Enhancing Public Trust. Reducing corruption is critical for promoting economic growth and development by creating a stable and predictable environment for business and investment.

However, by guaranteeing that public servants are held responsible for their acts and that the public has a right to know about government operations, accountability and transparency are crucial for eliminating corruption. Protecting property rights is critical for reducing corruption by ensuring that individuals and businesses have secure rights to their property and that corruption does not undermine these rights. Enhancing public trust is essential for reducing corruption by ensuring that citizens have confidence in the government and its institutions, which can help to reduce corruption.

Research using the WGI has consistently shown that countries with lower Control of Corruption scores tend to have better economic outcomes and higher levels of development. A study conducted by Kaufmann and colleagues, for instance, discovered that nations with lower Control of Corruption scores typically have lower levels of corruption and stronger economies. The results of this study also revealed a negative correlation between human development and economic growth and Control of Corruption ratings (Kaufmann et al., 2003).

Previous studies have shown that good governance is significantly impacted by the control of corruption. Reducing corruption in an efficient manner helps improve trust. When people believe that their government is dedicated to stopping and eliminating corruption, control over corruption can increase public trust in government and institutions. Since responsible and transparent government operations are more likely to occur, corruption control can also advance transparency.

Aside from that, reducing corruption increases the likelihood that public servants will be held responsible for their deeds. Finally, since corruption can impede investment and economic expansion, promote economic development (Sundström, 2013; Welsch, 2004; Winbourne, 2002). In summary, the Control of Corruption dimension in the WGI is a critical component of the good

governance theory, as it highlights the importance of reducing corruption in ensuring effective governance and sustainable development.

2.1.2. Economic Development

There are several variables that is used in this study from economic development to be the control variables in this research. Control variable helps to investigate the links between different variable by keeping a constant state throughout an experiment or study. Control variables are necessary to ensure that test findings are fairly compared and to prevent distortion that could skew the results and render the working hypothesis inaccurate.

The control variables in this research is GDP per capita constant, GDP per capita growth, Trade Openness, Foreign Direct Investment (FDI), and Manufacture. These data source are come from World Development Indicators in World Bank Group website.

2.1.2.1. Gross Domestic Product per capita Constant

GDP per capita adjusted for inflation and represented in constant year's dollars is known as GDP per capita constant, or Gross Domestic Product (GDP) per capita constant. This adjustment ensures that the same amount of money may purchase the same quantity of goods and services in different countries and at different times by helping to account for variations in the cost of living over time and between countries.

This data is sourced from various institutions, including the World Bank, the Maddison Project Database, and the Penn World Table. These sources provide historical data on GDP per capita, enabling long-term comparisons and analyses of economic trends (Bank & OECD, 2015; Gapminder, 2024).The calculation for GDP per capita constant is by dividing the total GDP of a country by its population, and then adjusting for inflation to a specific base year, typically 2015 in many cases. The use of constant dollars allows for more accurate comparisons between countries and over time, as it accounts for inflation and differences in the cost of living. Economists use GDP per capita constant to analyse economic growth, standard of living, and the overall prosperity of nations. It helps in understanding how economic output is distributed among the population and how it changes over time (Investopedia, 2024; Wikipedia, 2024).

GDP per capita constant does not account for income distribution within a country. It provides an average figure that may not reflect the actual income levels of different segments of the population. Cross-country comparisons using GDP per capita constant can be distorted by exchange rate fluctuations, which affect the purchasing power of money in different countries (Investopedia, 2024). Higher GDP per capita constant is generally associated with higher standards of living and better economic performance. However, it should be used in conjunction with other economic indicators to get a comprehensive view of a country's economic health and well-being (Investopedia, 2024; Wikipedia, 2024).

2.1.2.2. Gross Domestic Product per capita Growth

The well-known type of GDP, Gross Domestic Product (GDP) per capita growth refers to the rate of change in GDP per capita over a specific period. It is calculated by dividing the change in GDP by the population and then expressing the result as a percentage. This metric provides insight into the pace at which the average income per person is increasing within a country (Investopedia, 2024).

The formula for GDP per capita growth is:

$$\text{GDP per capita growth} = \left(\frac{\text{Current year's GDP} - \text{Previous year's GDP}}{\text{Previous Year's GDP}} \right) \times 100$$

This formula is then divided by the population to get the growth rate per capita (DESA-UN, 2007).

GDP per capita growth is a key indicator of economic development and standard of living. It helps in understanding how effectively a country is increasing its average income per person. Policymakers use GDP per capita growth to evaluate the effectiveness of economic policies and interventions aimed at improving living standards. It allows for cross-country comparisons of economic performance and living standards, helping in identifying best practices and areas for improvement.

The data source of GDP per capita growth is provided by The World Bank, International Monetary Fund (IMF), and National Statistical Agencies, like Bureau of Economic Analysis (BEA). Limitation of GDP per capita growth will be in two things. First income distribution, GDP per capita growth does not account for

income distribution within a country. It provides an average figure that may not reflect the actual income levels of different segments of the population. The second, exchange rate fluctuations. Cross-country comparisons using GDP per capita growth can be distorted by exchange rate fluctuations, which affect the purchasing power of money in different countries.

2.1.2.3. Trade Openness

Trade Openness refers to the extent to which a country engages in international trade, measured by the ratio of its total trade (exports plus imports) to its Gross Domestic Product (GDP) (Fujii, 2017). This metric provides a comprehensive view of a country's exposure to global trade and its economic integration with the rest of the world. Higher trade openness indicates that a country is more engaged in international trade, which can have various impacts on its economy. This concept is crucial for a country's economic development and prosperity (OECD, 2011).

Trade openness has an impact on economic growth because it can boost competitiveness, improve productivity, and provide access to a wider choice of commodities and services. These factors all work together to increase economic growth. This brings up the subject of trade openness's contribution to capital formation: it enables nations to access foreign capital and technology. Generally speaking, increased trade can reduce poverty by generating jobs in the manufacturing and logistical sectors. Trade openness, as used in relation to innovation, introduces nations to novel ideas and cutting-edge methods that accelerate technological progress. FDI is almost the same. Foreign investors find countries with high trade openness more appealing because of their integrated and stable markets (Cernat, 2024).

Trade openness is closely linked to economic development. A country with high trade openness is likely to experience increased economic efficiency as if this country specializing in the production of goods and services in which it has a comparative advantage, a country can achieve higher levels of economic efficiency. Other than economic efficiency, Trade openness are also improved living standard as it will access a wider range of goods and services can improve living standards and reduce poverty. lastly, Trade openness might also enhanced competitiveness as

it helps the country to become more competitive, which is essential for sustained economic growth (Karras, 2003).

2.1.2.4. Foreign Direct Investment (FDI)

Foreign Direct Investment (FDI) refers to the purchase of an asset in another country, which gives the purchaser direct control over the asset. This can include the purchase of land, buildings, or productive assets such as factories in one country by an entity based in another country. FDI is distinguished from foreign portfolio investments or foreign indirect investments by the notion of direct control, where the investor has a lasting interest in the business or enterprise (OECD, 2002).

As mentioned above, FDI involves the acquisition of a controlling interest in a business or enterprise in a foreign country. This control can be achieved through various means, including mergers and acquisitions, building new facilities, or expanding existing operations (Hayes, 2024). FDI is a significant driver of international economic integration. It creates stable and long-lasting links between economies, fosters technological transfer, promotes international trade, and contributes to economic development (OECD, 2022; Ward, 2023). The importance of FDI is since its associated with higher economic growth rates. It increases access to new markets, reduces labour costs, and enhances productivity (TaxEdu, 2024).

How come that happened? FDI can lead to the creation of new jobs both directly and indirectly. Local workers benefit from increased employment opportunities, and domestic businesses benefit from access to a more skilled workforce where it will leads to better living standard (TaxEdu, 2024). By improving living standards and reducing the cost of essential items, FDI can contribute to poverty reduction. FDI can also engaging in international trade exposes countries to new technologies and innovative practices, driving technological advancements and improving overall economic efficiency (Wikipedia, 2024). Countries with high FDI tend to attract more foreign investors, as they offer a stable and integrated market for goods and services (TaxEdu, 2024).

Good governance, characterized by the Political Stability and Absence of Violence, and Control of Corruption, is seen as a key factor in attracting foreign direct investment. This is because investors are more likely to invest in countries with a stable and transparent business environment, where their investments are

protected and they can operate efficiently (Gök, 2018). The impact of governance on FDI is particularly pronounced in developing countries, where the absence of strong institutions and governance structures can deter foreign investment (Gani, 2007). In these contexts, the quality of governance can be a critical factor in determining the level of FDI a country receives, as investors are more likely to invest in countries with a stable and predictable business environment (Subasat & Bellos, 2013). The relationship between governance and FDI is not limited to the inflows of FDI, as good governance also enhances the outflows of FDI from a country. This is because better governance in a country allows stronger and larger firms to emerge, which then invest abroad (Hossain & Rahman, 2017). However, it is important to note that the relationship between governance and FDI is not universally accepted. Some studies have found no significant correlation between the two, suggesting that other factors such as economic development, natural resources, and trade agreements may play a more significant role in determining FDI (Biro, Erdey, Gall, & Markus, 2019).

2.1.2.5. Manufacture

In this research the variable Manufacture are taken from the World Development Indicators (WDI) database, which is maintained by the World Bank. Manufacturing, value added (% of GDP) is a key indicator that measures the value added by the manufacturing sector as a percentage of the country's Gross Domestic Product (GDP). Value added is the net output of a sector after adding up all outputs and subtracting intermediate inputs. It is calculated without making deductions for depreciation of fabricated assets or depletion and degradation of natural resources. In WDI, the manufacturing sector includes industries belonging to ISIC divisions 15-37. These divisions cover a wide range of manufacturing activities, from food and beverages to textiles, chemicals, machinery, and more. The value added by the manufacturing sector is expressed as a percentage of the country's GDP. This percentage indicates the relative contribution of manufacturing to the overall economy.

The data for this indicator comes from World Bank national accounts data and OECD National Accounts data files. The World Bank uses the International

Standard Industrial Classification (ISIC), revision 3, to determine the origin of value added. The calculation involves subtracting intermediate inputs from the gross output of manufacturers to obtain the value added. This process ensures that only the net output of the sector is considered, excluding the value of inputs that are used in the production process.

This indicator is crucial for understanding the economic significance of the manufacturing sector in a country. It helps policymakers and researchers assess the sector's contribution to economic growth, employment, and overall development. Manufacturing often drives technological progress, as companies invest in new technologies to improve efficiency and productivity. This can lead to broader economic benefits and innovations that spill over into other sectors (Drucker, 1990).

According to Bhasin (2019), Manufacturing is a significant contributor to economic growth and development. Nations that export manufactured products tend to experience higher marginal GDP growth, which supports higher incomes and tax revenues needed for government expenditures such as healthcare and infrastructure. It provides well-paying jobs for the middle class, particularly in engineering and other skilled positions. This facilitates greater social mobility and contributes to the overall economic stability of a country. The transformation of raw materials into finished goods adds significant value, leading to greater profitability and faster economic growth compared to primary sectors that focus on raw material production. Countries that excel in manufacturing can gain a competitive advantage in global markets, enhancing their trade balances and economic influence

2.1.3. Multidimensional Poverty

The idea of multidimensional poverty supports in the explanation of the different facets of poverty and their interactions. It covers, between other things, the challenges, roadblocks, issues, and misfortunes that individuals who live in poverty face on a daily basis. These include risks from assault and other threats to their safety, as well as lack of access to reproductive health care, education, food, water, electricity, or other basics of existence (Walker, 2015).

The concept of multidimensional poverty draws attention to the ways in which many aspects of poverty—such as income and living standards or education—intersect and overlap. The concept and assessment of multidimensional

poverty are context-dependent, which means that they vary amongst countries and cultures (IWDA, n.d.; Hardoon, 2022). A real-world example of multidimensional poverty would be denied access to necessities like electricity, clean water, and sanitary conditions, which can lead to substandard living conditions and an increased risk of disease; and someone who is denied education due to a lack of schools or financial constraints, which can result in lower earning potential and social exclusion.

The Multidimensional Poverty Measure (MPM), created by the World Bank, will be used in this study to examine the multidimensional poverty of the D-8 nation.

2.1.3.1. Multidimensional Poverty Measure (MPM)

The Multidimensional Poverty Measure (MPM) index determines the percentage of households in a country that are deprived within all three dimensions: monetary poverty, education, and access to necessary infrastructure services. This allows for a more thorough understanding of poverty. MPM is a term used to describe the complexity of poverty that takes into account aspects of well-being other than financial deprivation (Diaz-Bonilla, et al., April). Understanding poverty beyond financial deprivation is the goal of the Multidimensional Poverty Measure (MPM), which includes access to essential infrastructure and education in addition to the monetary headcount ratio at \$2.15 per day—the international poverty level at 2017 PPP (Purchasing Power Parity).

Using a slightly different methodology, MPM takes cues and direction from several well-known international multidimensional measures, particularly the Oxford University and United Nations Development Programme (UNDP)-created Multidimensional Poverty Index (MPI). MPM's new definition of poverty allows it to include a larger number of individuals living in poverty.

Although there is a considerable association between financial poor and deprivations in other areas, this correlation is not perfect. According to Friedman and Hill's Poverty and Shared Prosperity 2022 report, nearly four out of ten people who are multidimensionally poor (or 39%) are not considered to be in financial poverty because they also face nonmonetary deprivation. A nation's MPM is at least

as high as its level of monetary poverty, if not higher, demonstrating the significance of non-monetary aspects of poverty to overall well-being.

Non-financial deprivations such as lack of access to basic infrastructure and education exacerbate poverty and prolong cycles of inequality. Once poverty in every form is taken into account, securing greater standard of living for a community becomes more difficult, but it can give policymakers a way to track welfare progress and serve as a roadmap.

The World Bank's Global Monitoring Database contains harmonized surveys that provide the data for the MPM. The most recent global estimates are available for approximately 2018, based on household survey data gathered over a three-year period from 2015 to 2021. The six indicators that make up the MPM are: drinking water, sanitation, power, enrollment in school, income or consumption, and educational achievement. They are categorized into three aspects of well-being: financial, educational, and access to essential infrastructure services.

When basic infrastructure and education are included in addition to financial poverty, the percentage of the poor worldwide rises by 64 percent, from 8.8 percent to 14.5 percent, who live on less than \$2.15 a day. It is achievable to create an image of the number of multidimensionally deprived individuals are not included in the financial poverty dimension and which indicator deprivations have the greatest impact on well-being in the various regions by contrasting the monetary poverty aspect with indications from other dimensions. In fact, because they are impoverished in nonmonetary dimensions alone, nearly four out of ten (39%) multidimensionally poor individuals are not included in the definition of monetary poverty.

2.2. Previous Research

2.2.1. Good Governance to Multidimensional Poverty

Studies have indicated a correlation between effective governance and a decrease in both multifaceted poverty and horizontal disparities. However, the impact of governance on poverty reduction may vary depending on the level of economic development and the quality of institutions. Good governance can contribute to poverty reduction by improving the delivery of public services, enhancing economic growth, and promoting social inclusion.

According to the research conducted by Diez (n.d.), effective governance makes sure that economic, political, and social priorities are established by a broad consensus within society as well as the perspective of the most vulnerable and impoverished people is heard when decisions are being made on how to allocate resources for development.

As stated by Doumbia (2020) on Brookings' commentary, who commented on a Brookings editorial, strong governance is essential to promoting inclusive and pro-poor growth. The economic, political, and institutional components of good governance, particularly the quality of the regulations and the management of corruption, increase the income of the impoverished and reduce poverty.

Sumarto et al. (2005) came to the conclusion from another study that in order to end poverty in all its forms, strong governance is required. This includes increasing social participation and empowerment in addition to economic growth.

2.2.2. Voice and Accountability to Multidimensional Poverty

Studies have shown that Voice and Accountability are significant factors in reducing poverty. For instance, a study on governance in Sub-Saharan Africa found that voice and accountability were the most influential political institutional factors in reducing poverty in the region. The arguments are Voice and accountability lead to better governance by ensuring that institutions are transparent and responsive to citizen needs. This transparency and responsiveness can lead to more effective public service delivery, which is crucial for reducing poverty (Kilishi, Abdulganiyu, & Daniel, 2023).

The resource's analysis revealed that the human poverty index (HPI) is significantly impacted negatively by Voice and Accountability alone. This suggests that in countries with low Voice and Accountability scores, poverty rates tend to be higher. The study also discovered that in order to improve poverty and deprivation in all its forms, voice and accountability—which measures how responsive the political system is to the wishes of the people—are essential (Bulte et al., 2003).

Voice and accountability engagement has become an essential component in the global development plan and is a part of the larger discussion about the significance of governance in enhancing prospects for the impoverished, according to another study on evaluating changes and accomplishments in voice and accountability. Nonetheless, there is little proof that Voice and Accountability have an effect on development results (Holland et al., 2009). UNDP back in 2002 found that citizens who have a voice are more likely to participate in economic activities, leading to higher incomes and better living standards (Goetz, 2002).

In conclusion, alleviating all aspects of poverty and deprivation requires the Voice and Accountability proxy, which is linked to decreased multidimensional poverty including horizontal inequalities. However, depending on the degree of institutional quality and economic growth, the effect of Voice and Accountability on reducing poverty may differ.

2.2.3. Political Stability and Absence of Violence to Multidimensional Poverty

According to research, there is a correlation between decreased multidimensional poverty and horizontal inequalities and political stability and the absence of violence. However, depending on the degree of monetary growth and the level of institutions, the effects of political stability and the absence of violence on the alleviation of poverty may differ.

According to a study by Muriu (2021), the human poverty index (HPI) is significantly impacted negatively by political stability and the absence of violence alone. This implies that poverty rates are typically greater in nations that have low Political Stability and Absence of Violence ratings. As it captures the political system's stability and lack of violence, the study also discovered that Political Stability and Absence of Violence is a Needed Factor for Improving All Dimensions of Poverty and Deprivation.

Political stability and the absence of violence work has become an essential component in the global development plan and is a part of the larger discussion about the significance of governance in enhancing prospects for the impoverished, according to an additional study on assessing alter and outcomes

in voice and accountability. Nonetheless, there is no proof that political stability and the absence of violence have an effect on development results (Costantiello & Leogrande, 2023).

A study about explaining the gap between multidimensional and monetary poverty found that Political stability and the Absence of Violence are crucial for effective governance. Stable institutions can more efficiently manage resources, implement policies, and provide public services, which are essential for reducing multidimensional poverty. Institutions that are free from corruption and political instability can better allocate resources to address poverty deprivations, such as education, healthcare, and infrastructure (Prasetyo, 2022).

Studies from Sustainable Competitiveness Observatory (SCO) in 2014 found several reasons such as Political stability fosters a conducive environment for economic growth. Stable governments can attract foreign investment, promote trade, and stimulate economic development. Economic growth, in turn, can reduce poverty by increasing access to employment opportunities, improving living standards, and enhancing the availability of resources for poverty reduction programs.

In social services, it ensures that social services such as education and healthcare are delivered effectively. These services are critical for addressing the deprivations that contribute to multidimensional poverty. Stable governments can invest more in these sectors, leading to better outcomes in terms of health and education. it will leads to promotes human capital development by ensuring that public spending on education and healthcare is effective. This leads to a more skilled and healthy population, which is essential for reducing poverty.

Furthermore, Political stability can help reduce inequality by ensuring that policies aimed at reducing poverty are implemented fairly and without bias. This includes policies such as progressive taxation, social welfare programs, and affirmative action measures. In the end of the day, stable governments can invest in infrastructure such as roads, electricity, and telecommunications, which are essential for economic growth and poverty reduction. Improved

infrastructure can enhance access to markets, services, and employment opportunities (SCO, 2014).

2.2.4. Control of Corruption to Multidimensional Poverty

According to a research by Chetwynd et al. (2003), the research examined in this paper shows that corruption does, in fact, both cause and aggravate poverty, but that this pattern is complicated and influenced by issues related to governance and the economy. These results suggest that anti-corruption initiatives that tackle problems of growth in the economy, income distribution, governance ability, public trust in government, and government health and education services will probably lessen poverty in addition to reducing corruption.

Proven the statement of Chetwynd et al., Handoyo & Fitriyah (2018) in their research state that control of corruption is crucial for effective governance. Corruption can lead to the misallocation of resources, which are essential for addressing poverty deprivations. When corruption is controlled, institutions can more efficiently manage resources, implement policies, and provide public services such as education, healthcare, and infrastructure, thereby reducing multidimensional poverty.

In along with the traditional causes of poverty (unemployment, slow GDP growth per capita, and public debt), Olaoye et al.'s 2021 study in Sub-Saharan Africa also revealed the same conclusion: poverty in the region is a symptom of a more serious structural issue (lack of availability of sanitation and water, high levels of corruption, low levels of monetary growth, and regular economic busts). Similarly, the geographic econometric specification results consistently demonstrate a significant residual effect of poverty throughout the region for all specifications.

Ogboru and Abimiku (2010) conducted research in Nigeria, which is also on the African continent. They discovered that corruption is a major reason why aid efforts have not produced the expected results, as money intended for projects or activities aimed at the deprived have been embezzled, misappropriated, or misallocated with no consequences. This article holds that

efforts to reduce poverty, no matter how well-intentioned, will remain invisible since the fight against corruption in Nigeria ends at superficial levels.

2.2.5. Gross Domestic Product (GDP) per Capita to Multidimensional Poverty

The explanation about GDP per capita Constant and Growth from previous studies will be discussed here as both of the variables refer to the same references as they explain how the improvement of GDP per capita will reduce poverty in previous research.

Research has consistently shown that good governance is positively correlated with higher GDP per capita. For example, a study examining the impact of governance on economic growth found that a 1% increase in governance raises economic growth by 1.1% (Singh, 2022). Another study using a sample of 116 countries found that governance had a statistically significant positive impact on GDP per capita. The composite governance measure was found to have a significant positive effect on economic growth, indicating that good governance is essential for higher GDP per capita (Wong & Autio, 2005). Even during times of economic crisis, good governance can mitigate the negative impacts on GDP per capita. A study on the relationship between governance and economic growth during crises highlighted the importance of stable governance in maintaining economic stability and growth (Singh, 2022).

As it was mentioned above that good governance can lead to higher GDP per capita. But how about multidimensional poverty? There are several theories and studies that suggest GDP per capita growth can reduce poverty. According to a study conducted by Wu et al. (2024), as they discussed the relationship between GDP per capita growth and poverty reduction, it highlights that the extent to which GDP per capita growth translates into poverty reduction is significant, indicating that higher GDP per capita can lead to a more rapid reduction in poverty.

All the way back to 1997, Roemer & Gugerty provided strong support that GDP growth per capita is a strong force in reducing poverty as 10 percent of GDP growth per year is shown to significantly reduce poverty. These

references collectively support the idea that GDP per capita growth can be an effective indicator for understanding the relationship between economic growth and poverty reduction.

2.2.6. Trade Openness to Multidimensional Poverty

Studies have shown that trade openness is positively correlated with economic growth. For example, Karras (2003) found that increasing trade (exports plus imports) as a fraction of GDP by 10 percentage points permanently increases the real growth rate of GDP per capita by approximately 0.25 to 0.3 percent. This effect is robust across different estimation methods and lag lengths, indicating that trade openness has a significant and positive impact on economic growth.

A study in Africa collaboration between CEPIL, or *Centre d'Etudes Prospectives et d'Informations Internationales*, and World Bank by Goff & Singh (2014) found several mechanisms that proven theoretically Trade Openness to reduce poverty. Trade allows countries to specialize in producing goods and services in which they have a comparative advantage. This specialization can lead to higher productivity and efficiency, which can increase overall economic growth and reduce poverty. In countries where labour is abundant, trade openness can lead to higher labour prices as the demand for labour increases due to the growth of the economy. This increase in labour prices can reduce poverty by improving the income of the poor.

Trade openness can facilitate access to capital and financial services to deep financial sectors countries, which are crucial for economic development and poverty reduction. In term education, Trade can stimulate economic growth, which in turn can lead to increased investment in education and human capital. Higher education levels can improve the skills of the workforce, making them more productive and better equipped to participate in the economy where it leads to providing better employment opportunities and higher earnings for the poor, thereby reducing poverty. Overall, trade openness can reduce poverty by fostering economic growth, improving labour market conditions, enhancing financial sector development, and promoting human capital formation, all of which are critical for reducing poverty and improving living standards.

2.2.7. Foreign Direct Investment (FDI) to Multidimensional Poverty

Darmawan & Faldi (2020) found that FDI has a significant positive impact on economic growth, which in turn reduces poverty rates. They used a panel least-squares analysis to investigate the relationship between FDI, trade, and economic growth in seven countries, including Egypt, Jordan, Indonesia, Malaysia, Nigeria, Pakistan, and Turkey.

Another study by (Im & McLaren, 2015) found that FDI can help decrease both income inequality and the poverty rate, particularly in lower income developing countries. They used a panel data approach to analyze the impact of FDI on income inequality and poverty in 127 developing countries from 1977 to 2012 (McLaren & Yoo, 2016). However, it is important to note that the impact of FDI on poverty can be influenced by various factors, including the type of FDI, the sector in which it is invested, and the local economic conditions. For instance, FDI in sectors that are more labour-intensive or have a higher potential for job creation may have a more significant positive impact on poverty reduction.

Other than invested in labour-intensive, FDI might also be invested in Multinational corporations (MNCs) that invest in a country that often bring advanced technologies and management practices with them. These transfers can improve the productivity of local industries and contribute to economic growth, which can reduce poverty (Do, et al., 2021; Nkoro & Uko, 2023). The presence of MNCs can also lead to spill over effects, where local businesses benefit from the technological and managerial expertise of the foreign investors. This can enhance the competitiveness of local industries and contribute to overall economic development (Ogunniyi & Igberi, 2014).

In capital stock, FDI can stimulate economic growth by increasing the capital stock of a country. This growth can lead to higher incomes and better living standards for the population, thereby reducing poverty. Other than FDI impact to the human capital, the presence of foreign investors can lead to improvements in institutional frameworks, such as better governance and regulatory environments. Stronger institutions can attract more investment and promote economic stability, which are crucial for poverty reduction (Do, et al.,

2021; Ogunniyi & Igberi, 2014). Overall, FDI can reduce poverty by fostering economic growth, improving labour market conditions, enhancing human capital, and promoting institutional development, all of which are critical for reducing poverty and improving living standards.

2.2.8. Manufacture to Multidimensional Poverty

In terms of economic growth, Manufacture identify as essential component for reducing poverty. Economic growth can lead to increased employment opportunities, higher incomes, and improved living standards, all of which are crucial for addressing the deprivations that contribute to multidimensional poverty. Other than that, Manufacturing often requires significant investment in infrastructure such as roads, electricity, and telecommunications. Improved infrastructure can enhance access to markets, services, and employment opportunities, thereby reducing poverty (Caceres, Ramos, & Meza, 2024).

Manufacturing is a crucial component of industrialization, which is the process of transforming an economy from an agrarian or resource-based economy to one that relies on mechanized manufacturing. Studies have shown that industrialization, particularly through manufacturing, can mediate the impact of economic growth on poverty reduction. A study using Causal Mediation Analysis found that almost 50% of the impact on poverty occurs through employment in manufacturing (Karahasan, 2023).

Research in South Africa found that exports from the manufacturing sector were significant in explaining food poverty reduction. This indicates that manufacturing can contribute to poverty alleviation through increased economic activity and employment (Maduku & Zerihun, 2022). The UNCTAD report emphasizes the importance of developing productive capacities, which includes increasing employment and productivity in sectors like manufacturing. This approach is seen as crucial for reducing poverty in least developed countries (UNCTAD, 2006).

Lastly, for policy suggestion. Research suggests that policies focusing on the creation of high-paying jobs in manufacturing can significantly reduce poverty. For instance, a UNIDO paper argues that

creating high-paying jobs in manufacturing is crucial for reducing poverty in Africa (Söderbom & Teal, 2002)

2.3. The D-8 Organization for Economic Cooperation

The D-8 Organization for Economic Cooperation, also known as Developing-8, is an intergovernmental organization formed by Bangladesh, Egypt, Indonesia, Iran, Malaysia, Nigeria, Pakistan, and Turkey. The D-8 was founded in 1997 with the goals of strengthening member nations' economic positions on the world stage, expanding trade opportunities, raising involvement with global decision-making, and raising living standards.

This organization is global in nature, encompassing countries from various regions rather than being limited to a specific area. The D-8's objectives include promoting peace, dialogue, cooperation, justice, equality, and democracy among its members. It covers ten sectors for collaboration, such as trade, industrial cooperation, telecommunications, energy, finance, banking, rural development, science, and more.

The D-8 holds summits every two years, with each summit hosted by a member country. The organization's structure includes a Summit, Council, and Commission, with an executive director facilitating communication and oversight. Since the D-8 nations together represent a sizeable share of global trade and population, their cooperation is essential for global economic growth and cooperation (Wikipedia, 2012).

The D-8 Countries are used in this research's objective because of their demographics. The D-8 countries are mostly Muslim and have large populations. With a combined population of over 1.2 billion, or 60% of all Muslims, the eight countries make up nearly 13% of the global population. Additionally, they occupy 7.6 million square kilometers, or 5% of the total area of the globe (Tehran Times, 2010). The value of trade amongst the D-8 nations was \$35 billion in 2006 and exceeded \$68 billion in 2010. 3.3% of all commerce was comprised of transactions among D-8 countries in 2010 (Tehran Times, 2010b). As of 2023, the nominal GDP of the eight countries combined was approximately 4.92 trillion.

These countries are endowed with a multitude of natural resources, including minerals, oil, gas, and agricultural resources, in addition to a sizable population. Bangladesh is the world's top exporter of jute and a country rich in agricultural resources. Egypt, home of the Suez Canal, natural gas, and petroleum. Iran possesses gas and oil reserves. Indonesia has an abundance of minerals, natural gas, and coal. Malaysia has resources for palm oil and lumber. Nigeria has abundant gas reserves. Pakistan has substantial coal and natural gas reserves. Turkey, the last, has an abundance of water resources (Farooqi, 2022).

Even with their abundance of natural riches, they continue to struggle with poverty. The percentage of people in each of the D-8 countries that live below the poverty line varies, according to the World Bank. Nigeria is in first place with a 40.1% poverty rate as of 2020. Significant difference to the next rank: Egypt's poverty rate is 27.8%. With 24,3%, Pakistan is in third place. Bangladesh is next to it with 21.1%. Remaining countries have relatively low rates of poverty. Turkey ranks sixth in terms of poverty, with a 14.7% percentage. And at 12,8%, Indonesia, a sizable nation, comes next. With the lowest rates of poverty—9,5% and 4,6%, respectively—Iran and Malaysia are ranked last and second, respectively (Bank W., n.d.).

The government have acknowledged this and taken action. Through collaboration and initiatives for economic growth, the D-8 Organization for Economic Cooperation has improved living conditions and decreased poverty among its member nations. The organization focuses on socioeconomic development in line with values like peace, discussion, collaboration, justice, equality, and democracy in an effort to raise living standards in its member nations.

Since the organization's Commissioners are tasked with encouraging compliance with directives in their respective countries, regular summits every two years will serve as a forum for leaders to discuss and address issues pertaining to economic development and poverty reduction. This can help to ensure that development initiatives are implemented effectively and have a positive impact on living standards and the reduction of poverty.

The D-8 Organization for Economic Cooperation has improved living conditions and decreased poverty among its member nations as a result of the action taken and its multipronged strategy. The D-8 countries' total volume of trade reached 63.3 billion USD in 2018, with the goal of increasing trade between nations to 15-20% of total trade by that year. The D-8 Special Trade Agreement, together with the Custom and Visa Agreements, have been implemented to facilitate trade among member countries. These have an economic output of with a combined GDP of almost \$4 trillion, the D-8 nations account for 1/7 of the world's population and 14% of worldwide trade. But it appears that this is insufficient on its own. To further reduce poverty, additional policies are still required to combat it.

2.3.1. Multidimensional Poverty in D-8 Organization for Economic Cooperation Countries

When examined closely, the D-8 Countries have their own condition regarding Multidimensional Poverty. Hanandita and Tampubolon (2015) provide an explanation for the state on multidimensional poverty in Indonesia, stating that there has been a clear decline in multidimensional poverty over the past ten years at both the national and sub-national levels, regardless of the weights or cut-offs used. In 2003, over 48% of adult Indonesians were multidimensionally impoverished, and as a group, they endured roughly one-fifth (0.19) of all the deprivations that might affect the society. Without a doubt, things improved in 2013: the percentage of persons classified as multidimensionally poor dropped to 11% in 2013, while the overall poverty rate dropped to 0.04 (a 78% decrease). According to the data, the rate of decreasing poverty was higher between 2003 and 2008 (60%) than between 2008 and 2013 (44%).

According to Saifullah's research from 2022, a lack of work prospects and inadequate access to fundamental education will probably cause Indigenous people to stay impoverished. Through the context of Pakistan, Salahuddin and Zaman (2012) provide evidence for his claim. The findings of their study demonstrate that multidimensional poverty metrics offer a more detailed and accurate representation of poverty. The Average Family Income (AFM)

measure shows a range of poverty levels, from borderline situations to absolutely impoverished people, rather than an absolute poverty threshold. This study shows how severely impoverished Pakistani citizens are in terms of both health and education. In the last fifteen years, there has been the greatest decline in education. Regretfully, this component serves as the long-term basis for the development of capacities.

CHAPTER 3
METHODOLOGY

3.1. The Data

The main objective of this research is to determine the components of governance in the D-8 Organization for Economic Cooperation countries that both cause and exacerbate multidimensional poverty in these countries compared to other countries globally. This research employs panel data with the observations of 130 countries, including 6 countries of D-8 countries (i.e. Bangladesh, Egypt, Indonesia, Malaysia, Pakistan, and Turkey). The data used is from 2009 to 2022. This study's data were obtained:

3.1. Operational Variables

No.	Variable		Proxy	Source
1.	Dependent	Multidimensional Poverty	Multidimensional Poverty Measure (MPM)	World Bank
2.	Independent	Governance	Voice and Accountability	Worldwide Governance Indicators (WGI)
			Political Stability and Absence of Violence	
			Control of Corruption	
3.	Control Variables	Economic Development	GDP per capita Constant	World Development Index (WDI)
4.			GDP per capita Growth	
5.			Trade Openness	
6.			Foreign Direct Investment (FDI)	
7.			Manufacture	

8.		Dummy	0: Globally 1: D-8 countries	
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Source: Author

3.2. The Models

This research using Panel Data Analysis as model estimation which Multidimensional Poverty Measurement (MPM) as dependent variable. Furthermore, the main estimation are Governance which represented by Voice and Accountability, Political Stability and Absence of Violence, and Control of Corruption. Second, the control variables of this estimation is economic development which is from World Development Indicators (WDI).

Here is the model estimation of this study:

$$MPM_{it} = \alpha_{it} + \beta_1 VA_{it} + \beta_2 PV_{it} + \beta_3 CC_{it} + \beta_4 GDPcapconstant_{it} + \beta_5 GDPcapgrowth_{it} + \beta_6 Trade_{it} + \beta_7 FDI_{it} + \beta_8 Manufacture_{it} + \varepsilon_{it} \dots \dots \dots (4.1)$$

Where,

- MPM : Multidimensional Poverty Measure (MPM), country i year t
- α_{it} : Constanta
- β : Coefficient of Variable
- VAE_{it} : Voice and Accountability, country i year t
- PVE_{it} : Political Stability and Absence of Violence, country i year t
- CCE_{it} : Control of Corruption, country i year t
- $GDPcapconstant_{it}$: Gross Domestic Product per Capita Constant, country i year t
- $GDPcapgrowth_{it}$: Gross Domestic Product per Capita Growth, country i year t
- $Trade_{it}$: Trade Openness, country i year t
- FDI_{it} : Foreign Direct Investment, country i year t
- $Manufacture_{it}$: Manufacture, country i year t
- ε_{it} : Error term

a. Multidimensional Poverty

Multidimensional poverty, as measured by the World Bank's Multidimensional Poverty Measure (MPM), is the dependent variable in this study. The percentage of the population that is multidimensionally poor will be determined using the multidimensional poverty headcount ratio (%) as the unit of measurement. A higher ratio denotes a greater percentage of the populace that is impacted by multidimensional poverty, whilst a lower ratio implies that fewer individuals are. Considering that the average headcount ratio for multidimensional poverty worldwide is roughly 7.959371, nations having multidimensional poverty headcount ratios (%) above average are thought to be multidimensionally poor relative to the global average (Diaz-Bonilla, Sabatino, Wu, & Nguyen, 2023).

b. Worldwide Governance Index (WGI)

Three proxies from the World Bank website's Worldwide Governance Index (WGI)—Voice and Accountability, Political Stability and The absence of Violence, and Control of Corruption—are used in this study as the independent variables. Regarding the score, there is no specific rule of thumb that indicates if a proxy is excellent or poor; this research classifies the score as excellent if it's greater than the world's average score. Thus for Voice and Accountability it's ≥ 0.4307043 world average, Political Stability and Absence of Violence ≥ 0.1452965 world average, and Control of Corruption ≥ 0.303998 world average.

c. Economic Development

As this research is using economic development for control variables, the variables used from World Development Indicators (WDI) are GDP per capita constant, GDP per capita growth, Trade Openness, Foreign Direct Investment (FDI), and Manufacture.

GDP per capita constant measures the actual value of GDP per capita in constant local currency units, which means the value is adjusted for inflation. It provides a stable and comparable measure of average income per person over time. The constant value is derived by dividing the constant price GDP by the

mid-year population, ensuring that the value is adjusted for inflation and remains consistent over time. GDP per capita constant provides a baseline measure of average income per person, allowing for comparisons across different time periods and countries. It helps in assessing the overall economic performance and standard of living.

GDP per capita growth measures the rate of change in GDP per capita over a year. It is expressed as a percentage and indicates how much the GDP per capita has increased or decreased from the previous year. The growth rate is calculated using the least-squares annual growth rate method, which involves fitting a straight line to the data points to estimate the average annual growth rate. GDP per capita growth indicator is useful for understanding the trend and rate of change in economic growth, which can be linked to various economic and social outcomes such as poverty reduction and employment.

Trade openness is a measure that captures the extent to which a country engages in international trade. It is typically defined as the ratio of a country's total trade (exports plus imports) to its Gross Domestic Product (GDP). This ratio provides a convenient and widely used indicator of a country's trade orientation and its level of economic integration with the rest of the world. Affects the overall level of economic activity, employment, and income distribution by influencing the availability of goods and services. A higher trade openness ratio indicates that a larger portion of the country's economic activity is involved in international trade, suggesting a more open economy. A lower trade openness ratio suggests that the country is less open to international trade, potentially indicating protectionist policies or geographical constraints.

Foreign Direct Investment (FDI) measures the flow of capital from one country to another for the purpose of establishing or expanding a business, the net inflow of foreign investment into a country. FDI can take various forms, including direct investments in manufacturing, services, and real estate. FDI focuses on the volume of trade relative to GDP, indicating the level of economic integration and openness to international markets. It reflects the extent to which a country is attracting foreign capital, which can bring in new technologies, management practices, and market access. Higher FDI inflows

can indicate a more attractive investment environment, potentially leading to economic growth and job creation. Lower FDI inflows might suggest that the country is less attractive to foreign investors, possibly due to regulatory barriers, political instability, or other factors.

Manufacture from World Development Indicators (WDI) refers to industries belonging to ISIC divisions 15-37. Value added is the net output of a sector after adding up all outputs and subtracting intermediate inputs. It is calculated without making deductions for depreciation of fabricated assets or depletion and degradation of natural resources. The value added by the manufacturing sector is calculated as a percentage of the country's GDP. This provides a measure of the sector's contribution to the overall economy. An increase in manufacturing value added can suggest economic growth and industrial development. Otherwise, A decrease might indicate economic challenges or structural issues within the manufacturing sector.

3.3. Estimation

3.3.1. Panel Data Analysis

Panel data analysis regression is a statistical method used to analyse data that are collected over time and across the same individuals or entities. Panel data are also known as longitudinal data or cross-sectional time-series data. They consist of multiple entities, each with repeated measurements at different time periods. This structure enables the analysis of both individual (group) effects and time effects, which are crucial in understanding the dynamics of economic, social, or behavioural phenomena (Maddala, 2001).

3.3.2. Panel Data Analysis Assumption

Gujarati discusses the assumptions and limitations of different panel data models, emphasizing that panel data analysis does not require classical assumption tests such as linearity, normality, and homoscedasticity, which are typically necessary for cross-sectional and time-series analyses. This is because panel data combines both cross-sectional and time-series data, providing a more robust framework for analysis (Gujarati, 2012).

3.3.3. Advantages and Disadvantages of Panel Data Analysis

According to Hsiao (2006) in his research, he explained several advantages and disadvantages of Panel Data Analysis. The advantages of Panel Data Analysis are improved estimation efficiency. Panel data provides more degrees of freedom compared to cross-sectional or time-series data, leading to more efficient estimates of regression coefficients. Panel Data Analysis are also able to reduced multicollinearity as the inclusion of multiple observations for each entity reduces the likelihood of multicollinearity, which can make it easier to interpret the coefficients of the independent variables. Panel data allows for the control of unobserved individual-specific effects, which can be correlated with the independent variables. This helps in reducing the risk of omitted variable bias. It also enables the analysis of dynamic relationships over time, providing insights into how variables change and interact with each other over different periods. Since Panel data combines both time-series and cross-sectional dimensions, it allows the analysis of both individual and time-specific effects simultaneously.

The disadvantages of Panel Data Analysis are often more expensive to collect than other types of data due to the need for repeated observations over time. This can limit the availability of high-quality panel data. Panel data analysis requires sophisticated econometric techniques to handle the complexities of longitudinal data. This can be challenging for researchers without extensive experience in panel data analysis. This analysis can suffer from heteroscedasticity (non-constant variance) and autocorrelation (correlation between error terms over time), which need to be addressed using appropriate estimation techniques. Choosing the appropriate model specification (Pooled OLS, Fixed Effect Model, and Random Effect Model) can be difficult, and incorrect specification can lead to biased estimate.

3.3.4. Panel Data Analysis Stages

This section describes Panel Data analysis using Stata 16 software. In this study, annual data is start from 2009 to 2022.

3.3.4.1. Determination of the Estimation Model

There are several types of Panel Data Regression models according to Wooldridge (2002) that determining the estimation model on panel data. There are two approaches, each addressing different assumptions about the error term:

1. Pooled Ordinary Least Squared (Pooled OLS)

The model is estimated using the Ordinary Least Squared (OLS) method but Pooled OLS model treats all observation as if they come from a single group, effectively combining the panel data into a cross-sectional data set. Pooled OLS assumes that there are no unobservable entity-specific effects. The error term is uncorrelated with the independent variables. The error term is identically and independently distributed (i.i.d.) with a constant variance.

The Pooled OLS model regression equation is:

$$y_{it} = \beta_0 + \beta_1 x_{it} + \varepsilon_{it} \dots \dots \dots (4.2)$$

2. Fixed Effects Model (FEM)

FEM assumes that individual-specific effects are time-invariant and correlated with the independent variables, means that the intercept of each individual is different. A dummy variable is required in order to differentiate one object from another, even while the slope between individuals is fixed. To sum up, FEM just considers individual-specific effects and makes the assumption that there is no time effect.

The Fixed Effect Model regression equation is:

$$y_{it} = \alpha + \alpha_i + \beta X_{it} + \varepsilon_{it} \dots \dots \dots (4.3)$$

2. Random Effect Model (REM)

REM assumes that individual-specific effects are time-invariant but uncorrelated with the independent variables. The parameters in this model are included in the error that vary between individuals over time. It is frequently referred to as the error component model because of this approach. It is assumed that there is no correlation between the individual errors and the combined errors.

$$y_{it} = \alpha + \beta X_{it} + W_{it} \dots \dots \dots (4.4)$$

Where:

$$W_{it} = \varepsilon_{it} + u_i \dots \dots \dots (4.5)$$

3.3.4.2. Determination of the Estimation Method

Baltagi (2021) clarifies in his most recent edition that the Hausman test is the sole need for determining estimates in panel data regression. The goal of the Hausman test is to determine which approach—the Fixed Effect Model (FEM) or the Random Effect Model (REM)—is best for estimating panel data. REM is a reference used in the Hausman test. The FEM model is a better choice than the REM model if the Hausman test indicates that the null hypothesis is rejected. The following hypothesis is being tested:

H0 = Random Effect Model (REM)

H1 = Fixed Effect Model (FEM)

According to the testing criteria, H0 is accepted if the Hausman test findings reveal a p-value larger than 0.05 or 5%. H0 is rejected if the p-value is less than 0.05.

3.3.5. Hypothesis Testing

In this study, the goal of hypothesis testing is to determine the extent to which independent variables influence the dependent variable.

3.3.5.1. Partial Test (T-Test)

The significance of each regression coefficient is assessed using the t-test. By using this test, one can ascertain whether an independent variable has a substantial effect on the dependent variable by determining whether its coefficient is significantly different from zero. A significance level of 1%, 5%, and 10%, or alpha = 0.01; 0.05; 0.1, was used for the test. Whenever the test result is below 0.01, 0.05, or 0.1, the independent variables significantly affect the dependent variable. The formula for a hypothesis is:

H0 = Independent variable has no significant effect to dependent variable

H1 = Independent variable has significant effect to dependent variable

3.3.5.2. Statistical F Test (Simultaneous)

Using the F-test, the overall significance of the regression model is evaluated. By using this test, one can ascertain whether the entire set of independent factors, when considered collectively, can account for a significant portion of the variation in the dependent variable. If the statistical significance level of F is less

than 5% or $\alpha < 0.05$, the relationship of the independent and dependent variables has a significant effect on the dependent variable simultaneously. However, if the significance threshold $F > 0.05$, there isn't a simultaneously significant correlation between the impacts of the dependent and independent variables. The following is the F test hypothesis formula:

H0 = Independent variable has no significant effect to dependent variable simultaneously

H1 = Independent variables has significant effect to dependent variable simultaneously

3.3.5.2. Determination Coefficient Test (R-square)

The goal of the coefficient of determination is to quantify the extent to which the independent variables may be explained by the model. The range of R-square values is 0 to 1. The more closely a model resembles 1, the better it can explain the independent variable and yield nearly all of the data required to forecast the dependent variable. On the other hand, if it approaches zero, there is still a limit to the model's capacity to explain the independent variable.

CHAPTER 4

FINDINGS

4.1. Data Analysis

In the description section, the research findings will be examined in connection to descriptive statistics. The standard deviation for every variable, the minimum and maximum descriptions of the lowest and highest values of the observations, and the average or mean value of the research items are examples of descriptive statistics. The following are the descriptive statistic's findings:

Table 4.1. Descriptive Statistic

Variable	Mean	Std. Dev.	Min	Max	N
Multidimensional Poverty Measure	0.3509441	2.614122	0.1	39.7	858
Voice and Accountability	-0.0199393	0.1346259	-1.443903	0.1848712	858
Political Stability and Absence of Violence	-0.0529724	0.2915669	-2.810035	0.2539473	858
Control of Corruption	-0.208607	0.1252131	-1.089611	0.3003309	858
GDP per Capita Constant	0.2558802	1.467293	0	13.44993	856
GDP per Capita Growth	0.1543791	0.9086072	-2.885094	10.4294	856
Trade Openness	2.168325	11.10836	0	131.3701	835
Foreign Direct Investment (FDI)	0.0709007	0.3692525	0.1838215	3.270944	835
Manufacture	0.8054467	3.740015	9.6489475	22.2933	830

Source: processed

Panel data provides a variety of observations. If the number of time units is the same of each individual or observation, then it is called a balanced panel. If the number of time unites is in different for each individual, it is called an unbalanced

panel. Based on this explanation, this research is included to the unbalanced panel since the time period with total 130 countries starts from 2009 to 2022.

Table 4.1 presents the descriptive statistic for common sample estimation. It indicates that the D-8 countries' average Multidimensional Poverty Measure (MPM) score is approximately 0.3509441 over the period 2009 to 2022. Minimum score of Multidimensional Poverty Measure (MPM) is 0.1, which belongs to Malaysia in the 2018 period, which means that at that period Malaysia is experiencing near-zero existence of Multidimensional Poverty Measure (MPM). In contrast, the maximum value of Multidimensional Poverty Measure (MPM) was experienced by Nigeria during 2018 with a score of 39.7. Actually, compared to the global MPM score, D-8 countries' Multidimensional Poverty Measure (MPM) scores are not considered high since the world's average score of MPM is 7.959371. This is indicating that most of the D-8 countries' Multidimensional Poverty Measure (MPM) are not that big, except for these three countries: Nigeria with an MPM of 39.7, Bangladesh with an MPM of 20.49, and Pakistan with an MPM of 16.67. The standard deviation of Multidimensional Poverty Measure (MPM) among D-8 countries is 2.614122; this indicates that the data is more variable and less clustered around the mean.

Moving on to independent variables. As one of the important components of worldwide governance indicators (WGI) based on good governance theory, Voice and Accountability (VA) is used in this research. The average score of VA in D-8 countries is -0.0199393 over the period of 2009-2022. The minimum score of VA is -1.443903, which belongs to Egypt in the 2019 period. Meanwhile, the maximum score of VA was experienced by Indonesia in 2016, which is 0.1848712. As this number is compared to the global average of VA, D-8 countries are considered to have a low score as the global average score is 0.430704. The standard deviation of Voice and Accountability (VA) on D-8 countries is 0.1346259, indicating that the data is more variable and less clustered around the mean.

The second independent variable will be Political Stability and Absence of Violence (PV), according to Kaufmann (2010). The average score of PV in D-8 countries over the period of 2009-2022 is -0.0529724, with the minimum score experienced by Pakistan in 2011 with -2.810035 and the maximum score held by

Malaysia with 0.2539473. These figures are considered low because, when compared to the global average, which is 0.1452965, it can be stated that the D-8 countries have a lower PV score than the world average. Following the standard deviation is 0.2915669, meaning that the data is more variable and less clustered around the mean.

The last proxy from Worldwide Governance Indicators will be Control of Corruption (CC). The average score of CC in D-8 countries is -0.208607. When investigated closer, the minimum score of CC in D-8 countries is -1.089611, which was experienced by Pakistan back in 2010. The maximum score of CC was experienced by Malaysia in 2018 with a score of 0.3003309. Overall, these figures are still regarded as low, despite Malaysia's highest score being very close to the 0.303998 global average score for CC. The standard deviation for Control of Corruption (CC) in D-8 countries is 0.1252131, meaning that the data is more variable and less clustered around the mean.

For the control variables, GDP per Capita Constant in D-8 countries in average is 0.2558802. This score includes the minimum score of GDP per Capita Constant in D-8 countries that have been experienced by Iran all the way from 2011 to 2022 with 0. Note that this might be caused by Iran's government not reporting their GDP per Capita Constant to the World Bank or other reasons. The maximum score of GDP per Capita Constant in D-8 countries is held by Turkey in 2021 with 13.44993. Compared to the global average score of 19.9609, these scores are considered low. The standard deviation of GDP per Capita Constant in D-8 countries is 1.467293, indicating the data is more variable and less clustered around the mean.

Other than GDP per Capita Constant, this research also uses GDP per Capita Growth in D-8 countries. The average score of GDP per Capita Growth in D-8 countries is 0.1543791, with the minimum score of GDP per Capita Growth experienced by Indonesia in 2020 with a score -2.885094 during COVID-19 time. Different conditions on facing the COVID-19 pandemic, Turkey's GDP per Capita Growth in 2021 is considered to be the maximum score of GDP per Capita Growth in D-8 countries with 10.4294. Compared to the global's GDP per Capita Growth, the average score along the minimum score of GDP per Capita Growth in D-8

countries is low, but Turkey is an exceptional case as its score of GDP per Capita Growth is higher than the world's average. The standard deviation of GDP per Capita Growth in D-8 countries is a little bit higher than the mean with 0.9086072; this is indicating a substantial spread of the data points relative to the mean, meaning that the data set exhibits a significant amount of variation or dispersion.

Trade Openness in D-8 countries' case showing the average of 2.168325 with the minimum score held by Nigeria with 0 back in 2018. Note that this might be caused by Nigeria's government not reporting their Trade Openness data to the World Bank or other reasons. Meanwhile, the maximum score of Trade Openness was experienced by Malaysia back in 2015 with 131.3701. With global's Trade Openness average score of 96.02448, Trade Openness in D-8 countries is really low compared to the rest of the world, but it is a different case with Malaysia, as its Trade Openness' score suppressed the global average score with a big gap. The standard deviation of Trade Openness in D-8 countries is 11.10836, indicating the data is more variable and less clustered around the mean.

Still in one of the control variables, Foreign Direct Investment (FDI) in D-8 countries' average score is 0.0709007 with the minimum score experienced by Nigeria in 2018 with 0.1838215. On the other hand, Malaysia in 2015 had the highest or maximum score for FDI in D-8 countries with 3.270944. These numbers are considered to be lower than the rest of the world, as the FDI globally average score is 6.455143. The standard deviation of Foreign Direct Investment (FDI) in D-8 countries is 0.3692525, indicating the data is more variable and less clustered around the mean.

The last variable in this research is Manufacture. The manufacture average score in D-8 countries are 0.8054467 with the minimum score of manufacture is experienced by Nigeria in 2018 with 9.6489475 while the maximum score of manufacture in D-8 countries is experienced by Malaysia in 215 with 22.2933. D-8 countries somehow are not too far from the manufacture's global average score which is 13.34741 even it still considered low. But Malaysia in 2015 already suppressed the world's average score in manufacture, indicating that Malaysia's manufacture are much advanced than the rest of the world average. The standard

deviation of manufacture in D-8 countries are 3.740015, indicating the data is more variable and less clustered around the mean.

4.2. Results

This research using panel data analysis with Pooled Ordinary Least Square (Pooled OLS), Fixed Effect Model (FEM), and Random Effect Model (REM) as model estimation. Multidimensional Poverty Measure (MPM) as dependent variable, followed by Voice and Accountability, Political Stability and Absence of Violence, and Control of Corruption as independent variables, along with GDP per Capita Constant, GDP per Capita Growth, Trade Openness, Foreign Direct Investment (FDI), and Manufacture as the control variable.

The result shows that all variables are significant simultaneously with probability of F value < 0.05 in Pooled OLS, Fixed and Random Effect Model. The coefficient of constant value from Pooled OLS estimation is 22.948 meaning that if all variables are not taken into account or zero thus the Multidimensional Poverty Measure (MPM) is 22.948. On the other hand, the coefficient value of Fixed Effect Model in constant is not significant while in Random Effect Model, the coefficient of constant is 21.746 means if all variables are not taken into account or zero thus the Multidimensional Poverty Measure (MPM) is 21.746, lower than Pooled OLS model.

4.2. Baseline Model

Variable	Pooled OLS	FEM	REM
D-8 Countries	-7.009*** (2.008)		-17.905*** (4.249)
Voice and Accountability	-9.776*** (1.932)	-3.541 (3.618)	-6.670* (3.567)
Political Stability and Absence of Violence	-1.937 (1.303)	-0.392 (0.991)	-2.282*** (0.811)
Control of Corruption	2.807** (1.242)	5.226 (6.393)	2.925 (5.038)

Voice and Accountability in D-8 Countries	17.388*** (2.480)	16.401** (7.644)	17.625*** (6.513)
Political Stability and Absence of Violence in D-8 Countries	1.294 (1.796)	-3.615 (3.025)	-1.282 (2.660)
Control of Corruption in D-8 Countries	-20.457*** (3.024)	-21.573*** (7.715)	-19.664*** (5.740)
GDP per Capita Constant	-0.026 (0.030)	-0.108** (0.053)	-0.222** (0.088)
GDP per Capita Growth	-0.165 (0.110)	-0.062 (0.065)	-0.027 (0.051)
Trade Openness	-0.01 (0.006)	0.005 (0.018)	-0.01 (0.014)
Foreign Direct Investment (FDI) Manufacture	-0.014 (0.010)	-0.004 (0.008)	-0.003 (0.007)
Manufacture	-0.727*** (0.115)	0.266 (0.270)	-0.001 (0.248)
_cons	22.948*** (2.430)	5.029 (5.066)	21.746*** (3.429)
R-Squared	0.2745	0.0020	0.2907
Observations	813	813	813
Prob F sig.	0.0000	0.0073	0.0000

Source: Proceeds

Note for the result above that significancy levels are mark with (***) as significant at 0.01% level, (**) significant at 0.05% level, (*) significant at 10% level. Disclaimer, regarding the result of D-8 countries dummy variable in Fixed Estimation Model (FEM) got omitted both in FEM and FEM robust regression. Based on the table above, the R-squared of Random Effect is greater than Pooled

OLS and Fixed Effect Model approximately 0.2907, which means the variables in Random Effect can explain this research as much as 29.07% and the rest will be explained by other variables. Similar to the Random Effect Model, the Pooled OLS has a high R-squared around 27.45%, whereas the Fixed Effect Model has a low R-squared around 0.20%.

This research uses Voice and Accountability from Worldwide Governance Indicators (WGI), with a scale from 0 to 100—100 being the highest Voice and Accountability score. From the Pooled OLS model, the coefficient of Voice and Accountability for D-8 countries is 17.38798 with a standard error of 2.479848. As the P-value shows 0.000, it indicates that this model has been significant at all levels (1%, 5%, 10%). Meanwhile, the coefficient of Voice and Accountability for global is -9.776149 with a standard error of 1.931605, along with the P-value of 0.000, which is also significant at all levels. For the Fixed Effect Model, the Voice and Accountability for D-8 Countries coefficient score is 16.40097 with a standard error of 7.644473 along with a P-value of 0.034, which indicates significance at 5% and 10% levels. In the global term, Voice and Accountability for Fixed Effect Model, the coefficient value is -3.541178 with a standard error of 3.617889 along with a P-value of 0.330, which is not significant at all levels. In the Random Effect Model, Voice and Accountability for D-8 countries the coefficient is -6.670457 with a standard error of 3.566985 along with a P-value of 0.061, which is significant at the 10% level. But in global term, coefficient score is -6.670457 with a standard error of 3.566985 along with a P-value of 0.061, which is significant only at 10% level.

With the same measure of scale and source, Political Stability and Absence of Violence proxy next to Voice and Accountability. From the Pooled OLS model, the coefficient of Political Stability and Absence of Violence for D-8 countries is 1.293758 with standard error of 1.796247 along with P-value of 0.72 which is significant at 10% levels. For the Fixed Effect Model, the Political Stability and Absence of Violence for D-8 Countries coefficient score is -3.615146 with standard error of 3.024906 along with P-value of 0.234, which is not significant at all levels. In the global term, Political Stability and Absence of Violence coefficient is -0.3924942 with standard error of 0.9913429 along with P-value 0.693, which is not significant in all levels. In the Random Effect Model, the Political Stability and

Absence of Violence in D-8 countries have coefficient score of -1.282144 with standard error of 2.65985 along with P-value 0.630, which is not significant at all levels. Compared to global scale, the Political Stability and Absence of Violence have coefficient score of -2.281936 with standard error of 0.8109704 along with P-value of 0.005 which is significant at all levels.

The last proxy from WGI is Control of Corruption. From the Pooled OLS model, the coefficient of Control of Corruption for D-8 countries is -20.45691 with standard error of 13.02393 along with P-value of 0.000 which is significant at all levels. For global scale, Control of Corruption's coefficient score is 2.807067 with standard error of 1.241956 along with P-value of 0.024, which is significant at 5% and 10% levels. Using Fixed Effect, the coefficient of Control of Corruption in D-8 countries are -21.57328 with standard error of 7.714779 along with P-value of 0.006, which is significant in all levels. Compared to global scale, the coefficient of Control of Corruption are 5.226363 with standard error of 6.393167 along with P-value of 0.415 which is not significant at all levels. In the Random Effect Model, Control of Corruption in D-8 countries have coefficient score of -19.66371 with standard error of 5.740148 along with P-value 0.001, which is significant at all levels. Compared to global scale, the Control of Corruption have coefficient score of 2.925091 with standard error of 5.037722 along with P-value of 0.561 which is not significant at all levels.

For additional variables, this research has five more control variables. The first one will be GDP per Capita Constant. From the Pooled OLS model, the coefficient of GDP per Capita Constant is -0.025881 with a standard error of 0.0297271 along with the P-value shows 0.384, which is not significant at all levels. For the Fixed Effect Model, the GDP per Capita Constant coefficient score is -0.1084247 with standard error of 0.0532327 along with P-value of 0.044, which is significant at 5% and 10% levels. In the Random Effect Model, the GDP per Capita Constant have coefficient score of -0.2223636 with standard error of 0.0876672 along with P-value 0.011, which is significant at 5% and 10% levels.

Not only GDP per Capita Constant, this research also using GDP per capita Growth. From the Pooled OLS model, the coefficient of GDP per Capita Growth is -0.1654158 with a standard error of 0.1098037 along with the P-value shows 0.132,

which is not significant at all levels. For the Fixed Effect Model, the GDP per Capita Growth coefficient score is -0.0618268 with standard error of 0.0647463 along with P-value of 0.341, which is not significant at all levels. In the Random Effect Model, the GDP per Capita Growth have coefficient score of -0.266622 with standard error of 0.0506305 along with P-value 0.598, which is not significant at all levels.

Trade Openness are the next control variable in this research. From the Pooled OLS model, the coefficient of Trade Openness is -0.0101935 with a standard error of 0.0063768 along with the P-value shows 0.110, which is not significant at all levels. For the Fixed Effect Model, the Trade Openness coefficient score 0.004821 with standard error of 0.0179299 along with P-value of 0.788, which is not significant at all levels. In the Random Effect Model, the Trade Openness have coefficient score of -0.009776 with standard error of 0.0143545 along with P-value 0.496, which is not significant at all levels.

Same as Trade Openness, Foreign Direct Investment (FDI) in this also investigating the open-economy relationship that happening between countries. From the Pooled OLS model, the coefficient of Foreign Direct Investment (FDI) is -0.142558 with a standard error of 0.0097754 along with the P-value shows 0.145, which is not significant at all levels. For the Fixed Effect Model, the Foreign Direct Investment (FDI) coefficient score is -0.0042909 with standard error of 0.0075568 along with P-value of 0.571, which is not significant at all levels. In the Random Effect Model, the Foreign Direct Investment (FDI) have coefficient score of -0.0031295 with standard error of 0.0067911 along with P-value 0.6445, which is not significant at all levels.

The last control variable will be Manufacture. From the Pooled OLS model, the coefficient of Manufacture is -0.7271755 with a standard error of 0.1151499 along with the P-value shows 0.000, which is significant at all levels. For the Fixed Effect Model, the Manufacture coefficient score is 0.2661267 with standard error of 0.270452 along with P-value of 0.327, which is not significant at all levels. In the Random Effect Model, the Manufacture have coefficient score of -0.0014476 with standard error of 0.2480325 along with P-value 0.995, which is not significant at all levels.

Based on Hausman test, this research using Fixed Effect Model (FEM) which means the H0 is rejected since the p-value is less than 0.05 (Appendix 1). Indicates that the Fixed Effect Model (FEM) is preferred over the Random Effect Model (REM) because the difference in coefficients between the two models is statistically significant.

4.3. Discussions

4.3.1. Relationship between Voice and Accountability and Multidimensional Poverty

A few examples of Voice and Accountability are public hearings, social audits, information freedom, independent media, civil society involvement, and electoral procedures. However, when it comes to the relationship between voice and accountability, poverty—let alone multidimensional poverty—is already complicated and subject to change based on the particular circumstances and variables involved. The effect of Voice and Accountability was positive statistically significant in Fixed Effect Model. The coefficient shows that the increase of Voice and Accountability will lead to higher Multidimensional Poverty Measure (MPM) by 16.40097. This is indicating that every one score increased of Voice and Accountability in D-8 countries leads to more Multidimensional Poverty.

Different result to D-8 countries, the effect of Voice and Accountability globally was negative statistically but not significant in Fixed Effect Model. The coefficient shows that the increase of Voice and Accountability will lead to lower Multidimensional Poverty Measure (MPM) by 3.541178 in Fixed Effect Model. This is indicating that in every model estimation, every one score increased of Voice and Accountability globally leads to less Multidimensional Poverty. The results of the D-8 countries demonstrate anomalies, which contradict the theory positing that the implementation of Voice and Accountability can effectively mitigate poverty.

After further search, some studies shows that Voice and Accountability can have unintended consequences that increase poverty in certain dimensions. The effects of Voice and Accountability on poverty might vary greatly throughout nations. For instance, a study in Middle East and North Africa discovered that the influence of Voice and Accountability on poverty can be significantly influenced by the level of quality of institutions and governance frameworks. In countries with

weak institutions, an increased Voice and Accountability might lead to more effective policies but also potentially exacerbate poverty in certain dimensions if the institutional framework is not robust enough to support inclusive growth (Hashem, 2019).

Another study about Voice and Accountability also revealed similar results. A study by (Bermeo, 2009) stated that even with political democracy spreading and positive rates of economic growth up until recently, inequality still seemed to be everywhere. Stating that everyone shouldn't be surprised by these tendencies that seem out of sync. While a decline in political inequality is a necessary component of democracy's advancement, other types of inequality may not necessarily decline as well. Historically, disparities in economic status and other aspects have followed their own course, regardless of the presence or absence of democratic democracy.

It's also true in general that electoral democracy and poverty go hand in hand. Reversing the trend of rising economic inequality may prove to be a challenging task, given the obstacles facing collective action. A significant collapse is unlikely, although this could worsen the state of contemporary democracies. Ultimately, the findings demonstrated that there is not always a favourable correlation between political democracy and the decrease of poverty. In reality, if the political process is exclusive and fails to take the concerns of the impoverished into consideration, it may result in increased rates of poverty. This claim has been validated by another study.

According to a study on vote buying in Indonesia, candidates are expected to provide financial support to impoverished voters, as this increases their likelihood of accepting gifts and cash during campaigns. Lower-income but more educated persons are more inclined to "vote their conscience," while higher-income but less educated citizens are more likely to turn down the money. By fostering a culture of reliance on political patronage, this has the potential to prolong poverty. Therefore, the author suggests that in order to help the poor and promote economic growth, government institutions should concentrate on financial inclusion and microfinance. This implies that if the institutional structure is not strong enough to promote equitable growth, the openness of public hearings may not always result in a decrease in poverty (Pradhanawati, Tawakkal, & Garner, 2018).

4.3.2. Relationship between Political Stability and Absence of Violence and Multidimensional Poverty

The lack of political instability, violence, and disturbance is referred to as political stability. In order to create an atmosphere that is favourable for economic growth and development, political stability is essential (Hadj Fraj, bouchoucha, & Maktouf, 2020). Economic growth is the increase in the creation of goods and services within an economy over a specified period of time. The economy is growing because of factors including innovation, investment, and technological advancements. One of the main forces behind economic growth is investment.

Investors are more inclined to fund a nation's economy when they have faith in its stability. The investment may result in more output, more jobs, and economic expansion. Because it permits resource allocation, employment creation, and the emergence of new industries, this trust is crucial for economic progress (Osei & Kim, 2020). Less uncertainty is a benefit of political stability. Political stability allows people and businesses to prepare more confidently for the future, which spurs investment and economic expansion. As it lowers the possibility of political unrest and expropriation, this will also draw in international investment (Kasyanenko, et al., 2023). Poverty will decline as a result of higher economic activity and domestic investment (Dash, 2020). It is anticipated that the government would concentrate on combating inequality and poverty in order to raise living standards and lower the rate of poverty.

The effect of Political Stability and Absence of Violence was insignificantly negative in Fixed Effect Model. The coefficient shows that the an increase of Political Stability and Absence of Violence's score will lead to lower Multidimensional Poverty Measure (MPM) by 1.282144. This is indicating that every one score increased of Political Stability and Absence of Violence in D-8 countries leads to less Multidimensional Poverty. Showing the same result as D-8 countries' case, the effect of Political Stability and Absence of Violence globally was negative insignificantly. The coefficient shows that the increase of Political Stability and Absence of Violence will lead to lower Multidimensional Poverty Measure (MPM) by 0.3924942. This is indicating that in every model estimation,

every one score increased of Political Stability and Absence of Violence globally leads to less Multidimensional Poverty.

The reason behind it also already explained through some theories. According to Douglas C. North's Institutional Frameworks Theory (1990) Political Stability and Absence of Violence are two important institutions that influence economic outcomes and poverty levels. For example, a politically stable atmosphere can spur economic expansion, investment, and the eradication of poverty (North, 1990). In addition, Paul Collier discovered another theory known as conflict theory, which postulates that political unrest and violence might result in decreased economic growth and instability. This is due to the fact that political instability can result in heightened uncertainty, lower investment, and a decline in economic activity. Furthermore, conflict theory contends that political instability and violence impede economic progress (Collier, 2007).

Examining the Political Stability and Absence of Violence that happened in the D-8 countries, it validated the findings. The Asian Financial Crisis in 1997-1998 had a dramatic impact on Indonesia, leading to a contraction in GDP of 13.6% in 1998 and limited GDP growth of 0.3% in 1999. In this time, Indonesia experienced high inflation rates. The inflation rate in 1998 was around 57.6%, and it remained high in subsequent years (Indonesia-Investment, 2024). The period of political turmoil in Iran has negatively impacted its economic growth. The sanctions imposed on Iran due to its political situation have also contributed to economic instability and lower GDP growth rates. This case also led to higher inflation rates in Iran. The inflation rate in Iran has been significantly higher than in other countries, with rates often exceeding 30% (Al Arif, Arisman, & Harahap, 2020).

4.3.3. Relationship between Control of Corruption and Multidimensional Poverty

The Control of Corruption proxy from Worldwide Governance Indicators (WGI) evaluates the degree to which private advantage is realized through the use of governmental authority, encompassing both minor and major corruption. It captures perceptions of corruption by the public, private sector, and civil society (Apaza, 2009). One example of Control of Corruption will be the prevalence of corruption. At all governmental levels, grand and small-scale corruption—

including fraud, theft, deception, and extortion—are assessed by Control of Corruption. It also assesses the impact of corruption on a nation's appeal as a location for business, taking into account the regularity of erroneous payments related to import and export licenses, contracts with government services, tax assessments, and court rulings.

There is a relationship of Control of Corruption to Multidimensional Poverty. Corruption can exacerbate poverty in several ways. According to (Chetwynd, Chetwynd, & Spector, 2003) Corruption can hinder economic growth by reducing investment, distorting markets, and creating inefficiencies. This can lead to lower GDP growth rates, which in turn can increase poverty levels. Corrupt governments may allocate public resources away from socially valuable goods like education and healthcare, diverting funds towards projects that offer more opportunities for kickbacks. This will also lead to the misallocation of funds for infrastructure projects, resulting in lower-quality infrastructure and fewer benefits for the poor.

The relationship of Control of Corruption to Multidimensional Poverty are proven in this research. The effect of Control of Corruption was significantly negative in Fixed Effect Model. The coefficient shows that the increase of Control of Corruption will lead to lower Multidimensional Poverty Measure (MPM) by 21.573278. This is indicating that in Fixed Effect Model, every one score increased of Control of Corrupt in D-8 countries leads to less Multidimensional Poverty. Different result to D-8 countries, the effect of Control of Corruption globally was negative insignificant in Fixed Effect Model. The coefficient shows that the increase of Control of Corruption will lead to higher Multidimensional Poverty Measure (MPM) by 5.226363 in Fixed Effect Model. This is indicating that in evert model estimation, every one score increased of Control of Corruption leads to more Multidimensional Poverty globally. The result in global term might be against the theory but in the case of D-8 countries the result are according to the theory where Control of Corruption can effectively mitigate poverty.

The reason behind it is because countries with better Control of Corruption tend to have lower multidimensional poverty. This is because effective anti-corruption measures can Enhance Economic Growth by attract more foreign

investment, improve market efficiency, and increase economic growth (Santos, Dabus, & Delbianco, 2016). Referring back to the claim made by Chetwynd et al. (2003), more effective anti-corruption measures can guarantee that public expenditures are allocated to programs like healthcare and education, which directly assist the underprivileged. Effective anti-corruption measures can ensure that infrastructure projects are completed efficiently and effectively, benefiting the poor through improved access to basic services.

CHAPTER 5

CONCLUSION

5.1. Conclusion

This research investigates the relationship between multidimensional poverty and governance in the D-8 countries and examines if the governance variables examined produce comparable outcomes in other nations. This study uses Panel Data Analysis to look at three independent variables— Voice and Accountability, Political Stability and Absence of Violence, and Control of Corruption —from the Worldwide Government Indicators (WGI). The dependent variable is the Multidimensional Poverty Measure (MPM) provided by the World Bank.

The results show that Voice and Accountability had a substantial positive effect in the D-8 countries, suggesting that this variable had an impact on raising the multidimensional poverty in the typical D-8 country. However, there was a substantial negative impact for Political Stability and Absence of Violence, and Control of Corruption, suggesting that these factors had an impact on reducing Multidimensional Poverty in the D-8 nations.

The outcome of this study may not be what was anticipated. However, this research also provides information on the present situation of affairs for each government of the D-8 countries, demonstrating that one of the projected variables do not influence the Multidimensional Poverty in these countries with real-world facts rather than just those found and written in books.

5.2. Policy Recommendations

Based on the findings and analysis, the research's policy recommendation encourages the D-8 countries' policymakers to prioritize improving their Political Stability and Absence of Violence, and Control of Corruption in order to lower their Multidimensional Poverty Measures (MPM).

In terms of Voice and Accountability, the government can act by restructuring the laws governing these subjects, especially by making the well-known practice of vote-buying illegal, which is currently taking place in D-8

countries. By ensuring improved policy execution, fostering long-term sustainability in efforts to reduce poverty, and fostering more trust in institutions, this action will strengthen governance, increase transparency and accountability, boost economic growth, and enhance citizen involvement. This is the most important issue that needs to be addressed because fraud in Voice and Accountability is a direct cause of the increase in multidimensional poverty, and if this illegal activity is eradicated, it will also reduce institutional corruption.

The data indicates that there is a significant lack of Political Stability and Absence of Violence in the D-8 countries, which is consistent with the political instability of those nations. Recently, for example, the Imran Khan case in Pakistan in 2022, the death of Mahsa Amini in September 2022 in Iran, terrorism in Indonesia, and other political turmoil that happened in D-8 countries. The lack of Political Stability and Absence of Violence disrupt economic activities, leading to reduced investment, lower productivity, and decreased economic growth. This instability can cause businesses to relocate or shut down, resulting in job losses, and reduced economic opportunities, which in turn exacerbates poverty.

In order to reduce multidimensional poverty, corruption must be controlled because it tackles the underlying causes of poverty and enhances the general governance and economic environment, including the public health, education, and public services sectors. As a result, the poor will have easier access to resources like employment opportunities and be able to improve their financial well-being. Additionally, because it would foster confidence and guarantee the efficient use of public resources, this will lessen economic inequality and increase transparency and citizen involvement. All of this will result in more efficient investment in industries that spur economic growth, which will lower poverty and boost growth of economy.

5.3. Limitation of the Study

The limitation of this research will be the Multidimensional Poverty Measure (MPM) data for the member of D-8 Organization for Economic Cooperation. Eventually, the Multidimensional Poverty Measure (MPM) data for all eight D-8 countries is incomplete; either a year's worth of data is missing, or the entire country report only includes data for one year.

Other than the data, the author also finds a limit in finding references regarding Multidimensional Poverty, not only in one or two countries, because most previous studies have primarily focused on examining multidimensional poverty in only one or two countries. This research contribution is expected to fill the gap in multidimensional poverty studies. By exploring these areas, this study can provide valuable insights and actionable recommendations to help reduce Multidimensional Poverty in D-8 countries or other countries organization, thereby contributing significantly to the field.

REFERENCES

- Abu-Ismael, K., Kuncic, A., & Sarangi, N. (2016). Governance-adjusted Human Development Index: The case for a broader index and its implications for Arab States. *Economic and Social Commission for Western Asia (ESCWA)*
- Ahmad, Z., & Saleem, A. (2024). Impact of governance on human development. *Pakistan Journal of Commerce and Social Sciences (PJCSS)*.
- Ahrlind, K. (2021). Governance and income inequality: A panel data analysis on the relationship between the quality of government and the Gini index. *Stockholms Universitet*.
- Al Arif, M. N., Arisman, & Harahap, D. (2020). Export, Political Stability, and Growth in Developing-8 Countries. *Estudios de Economia Aplicada*.
- Ali, M. (2019, November 26). *Bangladesh's economy to slow down to 7.5% in FY20: Fitch*. Retrieved from The Business Standard: <https://www.tbsnews.net/economy/bangladeshs-economy-slow-down-75-fy20-fitch>
- Amao, J. O., Ayantoye, K., & Fanifosi, G. E. (2017). An analysis of multidimensional poverty and its determinants in rural Nigeria . *Journal of Development and Agricultural Economic*.
- Apaza, C. R. (2009). Measuring Governance and Corruption through the Worldwide Governance Indicators: Critiques, Responses, and Ongoing Scholarly Discussion . *Cambridge University Press: Political Science & Politics*.
- Azam Khan, M., Abdullah, H., & Yien, L. (2019). he impact of fiscal policy on economic growth in ASEAN-5 countries. *Journal of Supply Chain Management*.
- Aziza, F., Ichwan, M., Yunus, S., & Nasruddin, M. A. (2021). Poverty and Human Development: An Inter-Regional Study. *Academy of Entrepreneurship Journal*.
- Bader, C., Bieri, S., Wiesmann, U., & Heinemann, A. (2016). Differences Between Monetary and Multidimensional Poverty in the Lao PDR: Implications for Targeting of Poverty Reduction Policies and Interventions . *Poverty & Public Policy*.

- Balisacan, A. M., Pernia, E. M., & Asra, A. (2002). Revisiting Growth and Poverty Reduction in Indonesia: What Do Subnational Data Show? *ERD Working Paper No. 25*.
- Baltagi, B. H. (2021). *Econometric Analysis of Panel Data*. Springer Texts in Business and Economics.
- Banerji, A. (2015, April). *Global and National Leadership in Good Governance*. Retrieved from UN Chronicle: <https://www.un.org/en/chronicle/article/global-and-national-leadership-good-governance>
- Banik, B., Roy, C. K., & Hossain, R. (2022). Healthcare expenditure, good governance and human development. *Economia*.
- Bank, T. W. (n.d.). *Regulatory Quality*. Retrieved from <https://www.worldbank.org/content/dam/sites/govindicators/doc/rq.pdf>
- Bank, W. (n.d.). *Poverty*. Retrieved from World Bank: <https://data.worldbank.org/topic/poverty>
- Bank, W. (2004). *Poverty. Understanding and Responding to Poverty*.
- Bank, W. (2019). *Poverty and Equity Data Book*. World Bank Group.
- Bhasin, H. (2019, October 18). *Secondary Industry: Meaning, Types, Characteristics, and Examples*. Retrieved from Marketing91: <https://www.marketing91.com/?s=Secondary+Industry%3A+Meaning%2C+Types%2C+Characteristics%2C+and+Examples>
- Bermeo, N. (2009). Does Electoral Democracy Boost Economic Equality? *Journal of Democracy*.
- Biro, F. P., Erdey, L., Gall, J., & Markus, A. (2019). The Effect of Governance on Foreign Direct Investment in Latin America — Issues of Model Selection. *Global Economy Journal*.
- Bobbit, Z. (2020, December 31). *The Breusch-Pagan Test: Definition & Example*. Retrieved from Statology: <https://www.statology.org/breusch-pagan-test/>
- Bulte, E. H., Damania, R., & Deacon, R. (2003). Resource Abundance, Poverty, and Development. Retrieved from Food and Agriculture Organization of United Nations: <https://openknowledge.fao.org/home>

- Can Gaberli, Y., Gaberli, Ü., & Güler, M. E. (2022). Impact of Political Stability and Absence of Violence/Terrorism on Tourism: A Panel Co-Integration Analysis. *Journal of Management and Economics Research*.
- Caceres, A. P., Ramos, E. Q., & Meza, C. S. (2024). Moderating the Effect of the Multidimensional Poverty Index on the Relationship between Sustainable Governance Indicators and Worldwide Governance Indicators. *Sustainability*.
- Cernat, L. (2024, March). *On the importance of trade openness*. Retrieved from European Centre for International Political Economy (ECIPE): <https://ecipe.org/blog/on-the-importance-of-trade-openness/>
- CESifo. (2007). *Worldwide Governance Indicators: Rule of Law, 2007*. Munich: Ifo Institute for Economic Research.
- CFI, T. (2024). *Variance Inflation Factor (VIF)*. Retrieved from Corporate Finance Institute (CFI): <https://corporatefinanceinstitute.com/resources/data-science/variance-inflation-factor-vif/>
- Chapra, M. U. (1999). Socioeconomic and Political Dynamics in Ibn Khaldun's Thought. *American Journal of Islamic Social Sciences*.
- Chetwynd, E., Chetwynd, F., & Spector, B. (2003). *Corruption and Poverty: A Review of Recent Literature*. Washington DC: United States Agency for International Development (USAID).
- Collier, P. (2007). *The Bottom Billion: Why the Poorest Countries are Failing and What Can Be Done About It*. OUP Oxford.
- Cook, J., & Williams, Y. (2023, November 11). *Absolute Poverty | Definition, Causes & Examples*. Retrieved from Study.com: <https://study.com/learn/lesson/absolute-poverty-causes-examples.html>
- Costantiello, A., & Leogrande, A. (2023). The Role of Political Stability in the Context of ESG Models at World Level. *Munich Personal RePEc Archive*.
- D'Attoma, I., & Matteucci, M. (2023). Multidimensional poverty: an analysis of definitions, measurement tools, applications and their evolution over time through a systematic review of the literature up to 2019. *Quality & Quantity*.

- Darmawan, A., & Faldi, M. V. (2020). Unleashing the Potential of Globalization to Bring Sustainable Prosperity in the Selected Asian and African Countries: Panel Least-Squares Analysis. *TEST Engineering & Management*.
- Dash, R. (2020). Impact of Remittances on Domestic Investment: A Panel Study of Six South Asian Countries. *South Asia Economic Journal*.
- Datta, R., & Sarsar, S. (2023). *Inequality and Governance in an Uncertain World Perspectives on Democratic & Autocratic Governments*. Lexington Books.
- de Castro, C. M. (2013). Public hearings as a tool to improve participation in regulatory policies: case study of the National Agency of Electric Energy. *Revista De Administração Pública*.
- Demsou, T. (2023). Gini index decomposition by deprivation in multidimensional poverty: evidence from Chad. *Gaceta Sanitaria*.
- DESA-UN, D. o. (2007, June 15). *Gross Domestic Product per capita*. Retrieved from United Nation: https://www.un.org/esa/sustdev/natlinfo/indicators/methodology_sheets/economy_development/gdp_percapita.pdf
- Diaz-Bonilla, C., Sabatino, C., Wu, H., & Nguyen, M. C. (2023). *April 2023 Update to the Multidimensional Poverty Measure*. World Bank.
- Diaz-Bonilla, C., Sabatino Gonzalez, C. G., Aron, D. V., Haddad, C. N., Nguyen, M. C., & Wu, H. (April, 2024). *Multidimensional Poverty Measure*. Retrieved from World Bank Group: <https://www.worldbank.org/en/topic/poverty/brief/multidimensional-poverty-measure>
- Diez, C. (n.d.). Good Governance in the Context of Extreme Poverty. *International Movement ATD Fourth World*. <https://sustainabledevelopment.un.org/content/documents/6673adt.pdf>
- Do, Q. A., Le, Q. H., Nguyen, T. D., Vu, V. A., Tran, L. H., & Nguyen, T. T. (2021). Spatial Impact of Foreign Direct Investment on Poverty Reduction in Vietnam. *Journal of Risk Financial Management*.
- Doumbia, D. (2020, July 1). *COMMENTARY The role of good governance in fostering pro-poor and inclusive growth*. Retrieved from BROOKINGS:

<https://www.brookings.edu/articles/the-role-of-good-governance-in-fostering-pro-poor-and-inclusive-growth/>

- Dollar, D., & Kraay, A. (2000). *Growth is good for the poor*. Washington, D.C.: World Bank.
- Dollar, D., & Kraay, A. (2001). *Growth is good for the poor*. World Bank, Washington, DC: Policy Research Working Paper 2587, Development Research Group.
- Dollar, D., & Kraay, A. (2002). Growth is good for the poor. *Journal of Economic Growth*.
- Drucker, P. F. (1990, June-May). *The Emerging Theory of Manufacturing*. Retrieved from Harvard Business Review. : <https://hbr.org/1990/05/the-emerging-theory-of-manufacturing>
- Duho, K., Amankwa, M., & Musah-Surugu, J. (2020). Determinants and convergence of government effectiveness in Africa and Asia. *Public Administration and Policy: An Asia-Pacific Journal*.
- Dvorak, J. (2015). European Union Definition of Poverty. *The SAGE Encyclopedia of World Poverty*.
- Economist. (2023, January 26). *To save Egypt's economy, get the army out of it*. Retrieved from The Economist: <https://www.economist.com/leaders/2023/01/26/to-save-egypts-economy-get-the-army-out-of-it>
- Ethirajan, A. (2023, November 2). *Bangladesh: Political violence grips country as election looms*. Retrieved from BBC: <https://www.bbc.com/news/world-asia-67282213>
- Emara, N., & El Said, A. (2019). Financial Inclusion and Economic Growth: The Role of Governance in Selected MENA Countries. *Munich Personal RePEc Archive*.
- endPoverty. (2023, March 2). *Relative Poverty vs. Absolute Poverty*. Retrieved from endPoverty: <https://endpoverty.org/relative-poverty-vs-absolute-poverty/>
- ESCAP. (2009). What is Good Governance? . *United Nations: Economic and Social Commission for Asia and the Pacific*.

- Eskelinen, T. (2011). Relative Poverty. *Encyclopedia of Global Justice*.
- Eurostat. (2024, January 29). *Glossary: Subjective poverty* . Retrieved from Eurostat: Statistic Explained: https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Glossary%3ASubjective_poverty
- Fadila, S. (2024). *Analysis Of Regulatory Quality Worldwide Governance Indicators In Asia Pacific Case Study: Indonesia-Papua New Guinea 2019-2021*. *Journal of Political Issues*, 5(2), 172-186. <https://doi.org/10.33019/jpi.v5i2.140>
- Fagbemi, F., Oladejo, B., & Adeosun, O. A. (2020). The Effectiveness of Poverty Alleviation Policy: Why Is the Quality of Institutions the Bane in Nigeria? . *Review of Development and Change*.
- Farooqi, M. I. (2022, April 2). *Natural resources of Muslim majority countries*. Retrieved from Muslim Mirror: <https://muslimmirror.com/eng/natural-resources-of-muslim-majority-countries/>
- FasterCapital. (2024, February 21). *Human development: Measuring Human Development with the Gini Index*. Retrieved from FasterCapital: <https://fastercapital.com/content/Human-development--Measuring-Human-Development-with-the-Gini-Index.html>
- Firebaugh, G. (2000). Empirics of World Income Inequality. *American Journal of Sociology*.
- Foresti, M., Hudson, A., Evans, A., Sharma, B., O'Neil, T., Menocal, & Rocha, A. (2007, July 31). *Evaluation of Citizens' Voice and Accountability*. Retrieved from Overseas Development Institute (ODI): <https://odi.org/en/about/our-work/evaluation-of-citizens-voice-and-accountability/>
- Fujii, E. (2017). What Does Trade Openness Measure? *cesifo Working Papers*.
- Fransman, T., & Yu, D. (2019). Multidimensional Poverty in South Africa in 2001-2016. *Development Southern Africa*.
- Friedman, J., & Hill, R. (2022). *The Poverty and Shared Prosperity* . World Bank.
- Gani, A. (2007). Governance and foreign direct investment links: evidence from panel data estimations. *Applied Economics Letters*.
- Gapminder. (2024). *GDP per capita in constant PPP dollars*. Retrieved from Gapminder: <https://www.gapminder.org/data/documentation/gd001/>

- GIRG. (2021, April 16). *Worldwide Governance Indicators & Good Governance Index*. Retrieved from GIRG: Global Indicators for Reforms & Growth: http://www.ncgg.org.in/sites/default/files/lectures-document/1_1.pdf
- Gisselquist, R. M. (2012). Good Governance as a Concept, and Why This Matters for Development Policy. *UNU-WIDER: World Institute for Development Economics Research*.
- globalEDGE. (n.d.). *World Bank: Worldwide Governance Indicators (WGI)*. Retrieved from globalEDGE: <https://globaledge.msu.edu/global-resources/resource/470>
- Goetz, A. M. (2002). Voice, Accountability and Human Development : The Emergence of a New Agenda. *Human Development Report Office: Occasional Paper*.
- Goff, M. L., & Singh, R. J. (2014). Does trade reduce poverty? A view from Africa. *Journal of African Trade*.
- Greselin, F., & Zitikis, R. (2018). From the Classical Gini Index of Income Inequality to a New Zenga-Type Relative Measure of Risk: A Modeller's Perspective. *Econometrics*.
- Guisan, M.-C. (2009). Government Effectiveness, Education, Economic Development, and Well-being: Analysis of European Countries in Comparison with the United States and Canada, 2000-2007. *Applied Econometrics and International Development*.
- Gujarati, D. (2012). *Econometrics by Example*. McGraw-Hill, USA: Palgrave Macmillan.
- Hadj Fraj, S., bouchoucha, N., & Maktouf, S. (2020). Political stability and economic growth: the role of exchange rate regime. *MPRA Paper*.
- Haggard, S., & Tiede, L. (2011). The Rule of Law and Economic Growth: Where Are We? . *Elsevier*.
- Hanandita, W., & Tampubolon, G. (2015). Multidimensional Poverty in Indonesia: Trend Over the Last Decade (2003–2013). *Social Indicators Research*.
- Hardoon, D. (2022, October 10). *What is multidimensional poverty?* Retrieved from Development Initiatives: <https://devinit.org/resources/what-multidimensional-poverty/>

- Handoyo, S. (2023). Worldwide governance indicators: Cross country data set 2012–2022. *Data Brief*.
- Handoyo, S., & Fitriyah, F. K. (2018). Control of Corruption, Regulatory Quality, Political Stability and Environmental Sustainability: A Cross-National Analysis. *Journal of Accounting Auditing and Business*.
- Hallward-Driemeier, M. (2017). *Trouble in the Making? The Future of Manufacturing-Led Development*. World Bank Group.
- Hassan, T. (2023). *Iran Events of 2022*. Retrieved from Human Right Watch (HRW): <https://www.hrw.org/world-report/2023/country-chapters/iran>
- Hashem, E. (2019). The Impact of Governance on Economic Growth and Human Development During Crisis in Middle East and North Africa. *International Journal of Economics and Finance*.
- Hayes, A. (2024, June 6). *Foreign Direct Investment (FDI): What It Is, Types, and Examples*. Retrieved from Investopedia: <https://www.investopedia.com/terms/f/fdi.asp>
- HDRO, H. D. (2015, February 19). *What is Human Development?* Retrieved from Human Development Report Office: <https://hdr.undp.org/content/what-human-development>
- Holland, J., Thirkell, A., Trepanier, E., & Earle, L. (2009). Measuring Change and Results in Voice and Accountability Work.
- Hossain, M. S., & Rahman, M. Z. (2017). Does Governance Facilitate Foreign Direct Investment in Developing Countries? *International Journal of Economics and Financial Issues*.
- Hsiao, C. (2006). Panel Data Analysis - Advantages and Challenges. *SSRN Electronic Journal*.
- Humanity, H. f. (2017). *Relative vs Absolute Poverty: Defining different types of poverty*. Retrieved from Habitat for Humanity Great Britain: <https://www.habitatforhumanity.org.uk/blog/2018/09/relative-absolute-poverty/>
- Im, H., & McLaren, J. (2015). Does Foreign Direct Investment Raise Income Inequality in Developing Countries? A New Instrumental Variables Approach.

- Indonesia-Investment. (2024, June). *Gross Domestic Product of Indonesia*. Retrieved from Indonesia-Investment: <https://www.indonesia-investments.com/finance/macroeconomic-indicators/gross-domestic-product-of-indonesia/item253>
- INSEE. (2021, July 8). *monetary poverty*. Retrieved from Institut National de la Statistique et des études économiques: <https://www.insee.fr/en/metadonnees/definition/c1653>
- Investopedia. (2024, March 31). *GDP Per Capita: Definition, Uses, and Highest Per Country*. Retrieved from Investopedia: <https://www.investopedia.com/terms/p/per-capita-gdp.asp>
- IWDA, I. W. (n.d.). *What is multidimensional poverty?* Retrieved from Equality Insight: <https://iwda.shorthandstories.com/what-is-multidimensional-poverty/index.html>
- IWDA. (n.d.). *What is multidimensional poverty?* Retrieved from Equality Insight - International Women's Development Agency: <https://iwda.shorthandstories.com/what-is-multidimensional-poverty/index.html>
- Jindra, C., & Vaz, A. (2019). Good governance and multidimensional poverty: A comparative analysis of 71 countries. *Governance*.
- JinRu, L., Qamruzzaman, M., Hangyu, W., & Kler, R. (2022). Do environmental quality, financial inclusion, and good governance ensure the FDI sustainably in Belt and Road countries? Evidence from an application of CS-ARDL and NARDL. *Frontiers in Environmental Science*.
- Kakwani, N., & Klasen, S. (1993). Poverty and economic growth. *Journal of Economic Issues*.
- Karahasan, B. C. (2023). To make growth reduce poverty, industrialize: Using manufacturing to mediate the effect of growth on poverty . *Development Policy Review*.
- Karras, G. (2003). Trade Openness and Economic Growth Can we Estimate the Precise Effect? *Applied Econometrics and International Development. AEEADE. Vol. 3-1*.

- Kasyanenko, S., Kenworthy, P., Ruch, F. U., Vashakmadze, E., Vorisek, D., & Wheeler, C. (2023). Investment in Emerging Market and Developing Economy Regions: Trends, Prospects, and Policy Options. *World Bank Group: Policy Research Working Paper*.
- Kaufmann, D. (2010, September 24). *Governance Matters 2010: Worldwide Governance Indicators Highlight Governance Successes, Reversals, and Failures*. Retrieved from Brookings: <https://www.brookings.edu/articles/governance-matters-2010-worldwide-governance-indicators-highlight-governance-successes-reversals-and-failures/>
- Kaufmann, D., & Kraay, A. (2002). Growth without Governance. *Policy Research Working Paper*.
- Kaufmann, D., Kraay, A., & Mastruzzi, M. (2003). Governance Matters III: Governance Indicators for 1996–2002. *World Bank Policy Research Working Paper*.
- Kaufmann, D., & Kraay, A. (2002). Growth without Governance. *Policy Research Working Paper*.
- Kaufmann, D., Kraay, A., & Mastruzzi, M. (2010). The Worldwide Governance Indicators: Methodology and Analytical Issues. *World Bank Policy Research Working Paper*.
- Kaufmann, D., & Kraay, A. (2023, October 19). *Worldwide Governance Indicators*. Retrieved from World Bank Group: <https://www.worldbank.org/en/publication/worldwide-governance-indicators>
- Kaufmann, D., & Vicente, P. C. (2005). Legal Corruption. *World Bank*.
- Kennedy, R. (1968, March 18). *Address to the University of Kansas*. Retrieved from Lawrence Kansas: www.informationclearinghouse.info/article27718.htm
- Kilishi, A. A., Abdulganiyu, A. I., & Daniel, O. G. (2023). Governance and Multidimensional Poverty in Sub-Saharan Africa. *African Journal of Economic Review*.
- Kyriacou, A. (2020). *Inequality and Governance*. New York: Routledge Frontiers of Political Economy.

- Lane, J.-E. (2015). Political Modernization: The Rule of Law Perspective on Good Governance. *Open Journal of Political Science*.
- Leal, J. (2021). The Effect of Income Inequality on Human Development. *Economics: Econometric Analysis*.
- Lechheb, H., Ouakil, H., & Jouilil, Y. (2019). Economic Growth, Poverty, and Income Inequality: Implications for Lower- and Middle-Income Countries in the Era of Globalization. *The Journal of Private Equity*.
- Leogrande, A. (2023). Ranking of Countries by Voice and Accountability. *Research Gate*.
- Loi, N. T., Huong, V. T., Duc, D. A., Dung, N. Q., & Van, V. Q. (2022). THE IMPACT OF INSTITUTIONS ON MULTIDIMENSIONAL POVERTY REDUCTION IN VIETNAM. *Journal of Social Economics Research*.
- Lukman, Sujianto, A. E., Dwiningtias, K., Luksita, A. C., & Narmaditya, B. S. (2023). Human Development Index, Good Governance, Practice and Export: Evidence From ASEAN Countries. *Journal of Eastern European and Central Asian Research*.
- Lustrilanang, Pius., Suwarno., Darusalam., Rizki, Lutfi., Omar, Normah., Said, Jamaliah. (2022). The Role of Control of Corruption and Quality of Governance in ASEAN: Evidence from DOLS and FMOLS Test. *Cogent Business & Management*. 10. 10.1080/23311975.2022.2154060.
- Lačný, M. (2020). Approaches to subjective poverty in economic and sociological research. *Human Affairs*.
- Madan, S. (2012). Human Development and Poverty – a Perspective Across Indian States. *STATISTIKA*.
- Madina, K., & Kusuma, N. (2023, November 17). *Multidimensional Poverty: How poverty is not just about money*. Retrieved from Green Network: <https://greennetwork.asia/featured/multidimensional-poverty-how-poverty-is-not-just-about-money/>
- Maddala, G. S. (2001). *Introduction to Econometrics (Third ed.)*. New York: Wiley.
- Maduku, H., & Zerihun, M. (2022). Ending Food Poverty Through Trade: Evidence from Manufacturing Exports in South Africa. *Business and Economic Analysis Journal*.

- Mafrudlo, A. M., Mansur, Z. A., Mustofa, & Janwari, Y. (2023). Economic Development Theory of Ibn Khaldun: Interrelation Between Justice and Umran Al-Alam. *Share Jurnal Ekonomi dan Keuangan Islam*.
- Mahmod, N. A. (2013). Good Governance and The Rule of law. *1st International Conference on Law, Business and Governance*.
- Mahmud, F. (2023, November 15). *Bangladesh's ongoing political crisis is 'high risk' for fragile economy*. Retrieved from Aljazeera: <https://www.aljazeera.com/economy/2023/11/15/bangladeshs-ongoing-political-crisis-is-high-risk-for-fragile-economy>
- MCC. (n.d.). *Control of Corruption Indicator*. Retrieved from Millennium Challenge Corporation: <https://www.mcc.gov/who-we-select/indicator/control-of-corruption-indicator/>
- McLaren, J., & Yoo, M. (2016). FDI and Inequality in Vietnam: An Approach with Census Data. *NBER Working Paper Series*.
- Mitra, P. (1994). Income Distribution and Poverty. *Journal of Economic Issues*.
- Moffat, J. (2023, September 22). *Pakistan's Political Crisis – A Country in Transformation*. Retrieved from Security Distillery: <https://thesecuritydistillery.org/all-articles/pakistans-political-crisis-a-country-in-transformation>
- Mood, C., & Jonsson, J. O. (2015). The Social Consequences of Poverty: An Empirical Test on Longitudinal Data. *Soc Indic Res*.
- MPPN, S. (n.d.). *What is Multidimensional Poverty?* Retrieved from MPPN, Multidimensional Poverty Peer Network: <https://www.mppn.org/multidimensional-poverty/what-is-multidimensional-poverty/>
- Muriu, P. (2020). Role of Institutional Quality in Promoting Financial Inclusion. . *Conference: AERC*.
- Muñetón-Santa, G., & Manrique-Ruiz, L. C. (2023). Predicting Multidimensional Poverty with Machine Learning Algorithms: An Open Data Source Approach Using Spatial Data. *Social Sciences*.
- Nandha, M., & Smyth, R. (2013). Quality of Governance and Human Development. *SSRN Electronic Journal*.

- Nándori, E. S. (2010). The Effect of Economic Growth on Poverty in Eastern Europe . *ZARZĄDZANIE PUBLICZNE*.
- Nandori, E. S. (2014). Objective and Subjective Poverty. *Encyclopedia of Quality of Life and Well-Being Research*, 4424–4428.
- Nkoro, E., & Uko, A. K. (2023). Foreign Direct Investment in the Quest for Poverty Reduction in Nigeria. *Bulgarian Academy of Sciences*.
- North, D. C. (1990). *Institutions, Institutional Change and Economic Performance*. Washington University, St Louis: Cambridge University Press.
- Ochi, A., Saidi, Y., & Labidi, M. A. (2023). Nonlinear Threshold Effect of Governance Quality on Poverty Reduction in South Asia and Sub-Saharan Africa: a Dynamic Panel Threshold Specification. *Journal of the Knowledge Economy*.
- OECD. (2022). *Foreign direct investment (FDI)*. Retrieved from OECD iLibrary: https://www.oecd-ilibrary.org/finance-and-investment/foreign-direct-investment-fdi/indicator-group/english_9a523b18-en
- OECD. (2011). *Trade in goods and services*. Retrieved from OECD: <https://www.oecd.org/en/data/indicators/trade-in-goods-and-services.html>
- Ogboru, Ishmael & Abimiku, Dr. (2010). *The Impact of Corruption on Poverty Reduction Efforts in Nigeria*.
- Ogunniyi, M. B., & Igberi, C. O. (2014). The Impact of Foreign Direct Investment [FDI] on Poverty Reduction in Nigeria . *Journal of Economics and Sustainable Development*.
- OHCHR. (2024). About good governance. *The Office of the High Commissioner for Human Rights (United Nations)*.
- Olaoye, Olumide., Ibukun, Cleopatra Oluseye., Razzak, Mustafa., Mose, Naftaly. (2021). *Poverty prevalence and negative spillovers in Sub-Saharan Africa: a focus on extreme and multidimensional poverty in the region*. International Journal of Emerging Markets. Emerald Group Publishing Limited, vol. 18(9), pages 2993-3021, September.
- Osei, M. J., & Kim, J. (2020). Foreign direct investment and economic growth: Is more financial development better? *Economic Modelling*.

- Parsons, J., Thornton, M., Kutateladze, B., Bang, H. E., & Yaya, A. (2008). *Rule of Law Indicator Instruments: A Literature Review*. A Report to the Steering Committee of the United Nations Rule of Law Indicators Project.
- Pavlycheva, O. (2017). A public hearing as a form of the public participation in the urban planning. *MATEC Web of Conferences*.
- Pradhanawati, A., Tawakkal, G. T., & Garner, A. D. (2018). Voting Their Conscience: Poverty, Education, Social Pressure and Vote Buying in Indonesia. *Journal of East Asian Studies*.
- Prasetyo, O. R. (2022). Explaining The Gap between Multidimensional and Monetary Poverty: A Panel Data Analysis. *International Institute of Social Studies*.
- Pratiwi, I. E. (2023). Socioeconomic Development in Muslim Countries: Ibn Khaldun's Development Model Based Approach. *Journal of Islamic Monetary Economics and Finance*.
- Purmiyati, A., Hassan, A. A., Sari, D. W., Romadhoni, V., Anggela, N., & Rahmadani, L. (2023). The Effect of Political and Economic Dimensions on Poverty in Indonesia. *Jurnal Ekonomi dan Studi Pembangunan*.
- Qizilbash, M. (2001). Corruption and Human Development: A Conceptual Discussion. *Oxford Development Studies*.
- Roemer, M., & Gugerty, M. K. (1997). Does Economic Growth Reduce Poverty? *Consulting Assistance on Economic Reform (CAER) II: Discussion Papers*.
- Saad, W., & Ayoub, H. (2019). Remittances, Governance and Economic Growth: Empirical Evidence from MENA Region. *International Journal of Economics and Finance*.
- Saatci, E., & Akpınar, E. (2007). Assessing Poverty and Related Factors in Turkey. *Croat Med J*.
- Saifullah, M. K. (2022). Well-being index of Indigenous people of Peninsular Malaysia: an application of the Multidimensional Poverty Measure (MPM). *AlterNative: An International Journal of Indigenous Peoples*.
- Salahuddin, T., & Zaman, A. (2012). Multidimensional Poverty Measurement in Pakistan: Time Series Trends and Breakdown. *The Pakistan Development Review*.

- Santos, M. E., Dabus, C., & Delbianco, F. (2016). Growth and Poverty Revisited from a Multidimensional Perspective. *OPHI Working Paper 105, Oxford Poverty and Human Development Initiative (OPHI)*.
- Satapathy, S. K., Saravanan, S., Mishra, S., & Mohanty, S. N. (2023). A Comparative Analysis of Multidimensional COVID-19 Poverty Determinants: An Observational Machine Learning Approach. *New Generation Computing*.
- SCO, S. C. (2020). *Voice and Accountability*. Retrieved from <https://competitivite.ferdi.fr/en/indicators/voice-and-accountability>.
- SCO, S. C. (2020). *Government Effectiveness*. Retrieved from Sustainable Competitiveness Observatory (SCO): <https://competitivite.ferdi.fr/en/indicators/government-effectiveness>
- SCO. (2014). *Political Stability and Absence of violence*. Retrieved from Sustainable Competitiveness Observatory (SCO): <https://competitivite.ferdi.fr/en/indicators/political-stability-and-absence-of-violence>
- SDSN. (n.d.). *Multidimensional Poverty Index*. Retrieved from Sustainable Development Solutions Network (SDSN): <https://indicators.report/indicators/i-3/>
- Shafique, S., Haq, R., & Arif, G. M. (2006). Governance and Income Inequality. *The Pakistan Development Review*.
- SIDA. (2023, April 28). *Sida's work with democracy, human rights and freedom of expression*. Retrieved from The Swedish International Development Cooperation Agency: <https://www.sida.se/en/sidas-international-work/thematic-areas/democracy-human-rights-and-freedom-of-expression>
- Siegel, A. F., & Wagner, M. R. (2022). Multiple Regression: Predicting One Variable From Several Others. In A. F. Siegel, & M. R. Wagner, *Practical Business Statistics (Eighth Edition)* (pp. Pages 371-431). Academic Press.
- Singh, B. (2022). Does Governance Matter? Evidence from BRICS. *Global Business Review*.

- Sulaeman, & Sukmana, R. (2023). Determining the Main Factors Involved in Alleviating Poverty in the Organization of Islamic Cooperation (OIC) Countries. *Journal of Economic Cooperation and Development*.
- Sumarto, S., Suryahadi, A., & Arifianto, A. R. (2005). Governance and Poverty Reduction: Evidence from Newly Decentralized Indonesia. *Development Economics: Women, Gender, & Human Development eJournal*.
- Sánchez, I. M., Cuadrado-Ballesteros, B., & Frias-Aceituno, J.-V. (2013). Determinants of Government Effectiveness. *International Journal of Public Administration*.
- Sundström, A. (2013). Corruption in the commons: Why bribery hampers enforcement of environmental regulations in South African fisheries. *International Journal of the Commons Vol. 7*, 454–472.
- Stiftung, B. (2024). *BTI 2024 Country Report—Indonesia*. Gütersloh.
- Söderbom, M., & Teal, F. (2002). How can policy towards manufacturing in Africa reduce poverty? A review of the current evidence from cross-country firm studies. . *Centre for the Study of African Economies Department of Economics University of Oxford* .
- Tafran, K., Tumin, M., & Osman, A. F. (2020). The Power of Multidimensional Poverty in Explaining Life Expectancy: Empirical Evidence from Cross-Sectional Data of 62 Developing Countries . *Iran Journal Public Health*.
- TaxEdu. (2024). *Foreign Direct Investment (FDI)*. Retrieved from Tax Foundation : <https://taxfoundation.org/taxedu/glossary/foreign-direct-investment-fdi/>
- Taylor, S. (2024). *Multiple Linear Regression*. Retrieved from Corporata Finance Institute: <https://corporatefinanceinstitute.com/resources/data-science/multiple-linear-regression/>
- Tehran. (2010, February 28). *D8 ministerial summit opens today*. Retrieved from Tehran Times: <https://www.tehrantimes.com/news/215026/D8-ministerial-summit-opens-today>
- Tehran. (2010, March 1). *Iran pledges €50m to D8 fund*. Retrieved from Tehran Times: <https://www.tehrantimes.com/news/215102/Iran-pledges-50m-to-D8-fund>

- Thomas, M. (2006). What Do the Worldwide Governance Indicators Measure? *The Paul H. Nitze School of Advanced International Studies The Johns Hopkins University*.
- Times, T. E. (2024, June 16). *What is 'poverty'*. Retrieved from The Economic Times: <https://economictimes.indiatimes.com/definition/poverty>
- Topalli, M., Papavangjeli, M., Ivanaj, S., & Ferra, B. (2021). The Impact of Foreign Direct Investments on Poverty Reduction in the Western Balkans. *Economics*.
- UCLG-ASPAC. (2021). GOOD GOVERNANCE: DEFINITION AND CHARACTERISTICS. *United Cities and Local Governments Asia-Pasific*.
- UN. (2020, September 9). *Ending Poverty*. Retrieved from United Nations (UN): <https://web.archive.org/web/20200909130506/https://www.un.org/en/sections/issues-depth/poverty/>
- UNDP. (2015). Humanity Divided: Confronting Inequality in Developing Countries . *Poverty Reduction* .
- UNDP-India. (2022, November 9). *What makes one poor – understanding the Multidimensional Poverty Index*. Retrieved from United Nations Development Programme: <https://www.undp.org/india/stories/what-makes-one-poor-understanding-multidimensional-poverty-index>
- UNDP, & OPHI. (2019, July 18). *UNDP and OPHI launch Handbook on Building National Multidimensional Poverty Index*. Retrieved from United Nations Development Programme: <https://www.undp.org/press-releases/undp-and-ophi-launch-handbook-building-national-multidimensional-poverty-index>
- UNDP, & OPHI. (2022). Unpacking deprivation bundles to reduce multidimensional poverty. *2022 Global Multidimensional Poverty Measure (MPM)*.
- UNDP, & OPHI. (2023). Unstacking global poverty: Data for high impact action. *2023 Global Multidimensional Poverty Measure (MPM)*.
- UNCTAD. (2006, July 20). *POVERTY REDUCTION THROUGH PRODUCTION*. Retrieved from UN Trade & Development: <https://unctad.org/press-material/poverty-reduction-through-production>

- UNCTAD. (2020). World Investment Report 2020: Investing in the Digital Economy. *United Nations Conference on Trade and Development (UNCTAD)*.
- UNICEF. (2022). A practical guide to monetary poverty analysis: Informing policies and programmes to address child poverty. *Monetary child poverty analysis policies*.
- Walker, R. (2015). Multidimensional Poverty. *Applied Knowledge Service*.
- Ward, M. (2023, June 20). *Foreign Direct Investment (FDI) Statistics*. Retrieved from UK Parliament: House of Commons Library: <https://commonslibrary.parliament.uk/research-briefings/cbp-8534/>
- Watts, H. W. (1964). An Economic Definition of Poverty. *Institute for Research on Poverty*.
- Welsch, H. (2004). Corruption, growth, and the environment: a cross-country analysis. *Environment and Development Economics*].
- WHO. (n.d.). *Averaged aggregate governance indicators*. Retrieved from World Health Organization: <https://www.who.int/data/nutrition/nlis/info/averaged-aggregate-governance-indicators>
- Wikipedia. (n.d.). *D-8 Organization for Economic Cooperation*. Retrieved from Wikipedia: https://en.wikipedia.org/wiki/D-8_Organization_for_Economic_Cooperation#
- Wikipedia. (2012, November 18). *D-8 Organization for Economic Cooperation*. Retrieved from Wikipedia: https://en.wikipedia.org/wiki/D-8_Organization_for_Economic_Cooperation
- Wikipedia. (2024). *Gross domestic product*. Retrieved from Wikipedia: https://en.wikipedia.org/wiki/Gross_domestic_product
- Wikipedia. (2024). *Foreign direct investment*. Retrieved from Wikipedia: https://en.wikipedia.org/wiki/Foreign_direct_investment
- Williamson, O. E. (2000). The New Institutional Economic: Taking Stock, Looking Ahead. *Journal of Economic Literature*.
- Winbourne, S. (2002). Corruption and the environment. *USAID Research Report*.

- Wong, P., & Autio, E. (2005). Entrepreneurship, Innovation, and Economic Growth: Evidence from GEM Data. *Small Business Economics*.
- Wooldridge, J. (2002). *Econometric Analysis of Cross Section and Panel Data*. MIT Press, Cambridge, Mass.
- Wu, H., Atamanov, A., Bundervoet, T., & Paci, P. (2024). The Growth Elasticity of Poverty Is Africa Any Different? *World Bank: Policy Research Working Paper*.
- Wąsowska, A. (2019). Venturing to Distant Markets - Polish Firms in Latin America. *Journal of Management and Financial Sciences*.

APPENDIX

Appendix 1: Hausman test

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. hausman fe re
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	Coefficients		(b-B) Difference	sqrt(diag(V_b-V_B)) S.E.
	(b) fe	(B) re		
vae	-3.541178	-6.670457	3.12928	.9952417
pve	-.3924942	-2.281936	1.889442	.3792501
cce	5.226363	2.925091	2.301272	.7091097
d8vae	16.40097	17.62538	-1.224413	2.122198
d8pve	-3.615146	-1.282144	-2.333003	1.44923
d8cce	-21.57328	-19.66371	-1.909571	3.508047
gdpcapnew	-.1084247	-.2223636	.1139389	.0763514
gdpcapgrowth	-.0618269	-.0266622	-.0351647	.0100523
trade	.004821	-.009776	.014597	.0124082
fdi	-.0042909	-.0031295	-.0011614	.
manufactur	.2661267	-.0014476	.2675743	.0945792

b = consistent under Ho and Ha; obtained from xtreg
 B = inconsistent under Ha, efficient under Ho; obtained from xtreg

Test: Ho: difference in coefficients not systematic

$\chi^2(11) = (b-B)'[(V_b-V_B)^{-1}](b-B)$
 = 40.60
 Prob>chi2 = 0.0000
 (V_b-V_B is not positive definite)