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Trade Beyond Borders; FDI's Role in Economic Resurgence

by

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I want to dedicate this achievement to my parents, teachers and friends who always encourage and support me in every crucial time

CERTIFICATE OF APPROVAL

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Abstract

This research focuses on studying the relationship between international trade and economic growth mediated by foreign direct investment. The study an-alyzes data from countries across the globe between 2000 to 2022. The sample size of countries analyzed for this research is around 150 countries. To test the indirect effect, the Generalized method of moments is used in this research to deal with endogeneity. Structural Equational Modelling was also incorporated to check the indirect impact on the model proposed. The results show that Foreign direct investment plays a pivotal role as a mediator to elevate and solidify the relationship between international trade and economic growth. foreign direct investment positively affects the relationship between international trade and economic growth. The study offers an exclusive overview of how the government should implement policies that attract and support foreign direct investment which ultimately elevates the economy's growth. A favorable investment climate promotes cross-border trade and uplifts the economy.

Keywords: Foreign Direct Investment; International Trade; Economic Growth.

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Chapter 1

Introduction

FDI, Economic Growth, and international trade are key factors in the paths that nations create for future prosperity. Investments are the driving forces of any economy. They improve financial health and promote international trade. Many researchers have discussed how investment affects a country's economy. While many factors influence the economy, one major factor is investment. Investments can build a strong economy. Among different types of investments, Direct Foreign Investments attract investors and improve the quality of workers. Any country can grow and become financially strong by expanding its investment opportunities. Cross-border investments through bilateral trade have supported this goal for decades.

Foreign direct investments is considered to be one of the foundations of the globalization process, which supports the economy's growth. Foreign direct investment not only allows additional resources from abroad but also facilitates and reinforces the use of advanced technologies and upgrades managerial skills (Alfaro, 2017). Indeed, foreign direct investment significantly quickens the process of Economic Growth. Foreign Direct Investments, FDI, have the potential to grow local economies and enhance global development. Through the creation of job opportunities and capital injection, FDI has been considered a tried and tested tactic for nations hoping to raise their GDPs in such a way as to compete on the world stage effectively (Cicea, Popa, Marinescu, & Ștefan, 2019).

Crossborder exchanges and Direct Foreign Investments (FDI) are crucial for fast growing economies and globalization. Their roles are significant because they drive technological and economic progress (Omri & Kahouli, 2014). "Horizontal FDI" and "vertical FDI" describe how FDI and trade can either replace or complement each other (Markusen, 1995). Vertical FDI, or efficiency- seeking FDI, happens when a company uses advanced technologies and cheaper resources in developing countries (Kaur & Sharma, 2013). This type of FDI is driven by cost-saving factors (Fonseca, Mendonça, & Passos, 2017). Horizontal FDI, or market seeking FDI, occurs when a company invests in another advanced economy. It reflects a joint venture between developed economies based on market opportunities (Fonseca et al., 2017).

Foreign Direct Investment (FDI) is vital for the growth and success of any country. It enables foreign individuals, companies, or organizations to invest in a host country, leading to increased economic activity, job opportunities, and a boost in international trade. Foreign Direct Investment (FDI) encompasses a range of management dimensions, including investments in bonds and portfolios of foreign stocks. Foreign Direct Investment is considered an integral component of the whole globalization process encompassing the growth of the economy. Not only does it bring added capital from foreign sources, but it also helps and improves the intake of advanced technology and improved managerial skills (Alfaro, 2017) Foreign Direct Investment (FDI) can play a pivotal role in driving Economic Growth at both macro and micro levels. By injecting capital and creating job opportunities, FDI can stimulate local economies and contribute to overall development. It's a proven strategy for countries looking to accelerate their growth and compete effectively globally (Cicea et al., 2019).

According to Lasbrey et al. (2018), the main goal of FDI syndicates is to make it easier for highly skilled individuals, technologies, and financial resources to relocate from their home countries to other destinations. Hence, divergent viewpoints exist among analysts regarding various benefits and advantages of Direct Foreign Investment for the host nations. Salahuddin, Alam, Ozturk, and Sohag (2018) asserts that foreign direct investment (FDI) positively Impacts GDP over the long term and facilitates globalization by increasing commerce. Industrialization

and commerce are facilitated by direct investment in foreign nations. Economic development and foreign direct investment have a positive relationship, according to a heterogeneous panel analysis conducted between 1983 and 2008 (Gaur, Ma, & Ding, 2018).

1.1 Background of the Study

The continuous increase in the production of goods and services is known as Economic Growth. Neoclassical Economic Growth theory states that population, total capital and product stock, geographic area and natural resource richness, and degree of technological application are the four factors that affect economic development (Astuti, 2018). Similarly, because the benefits of specialization and trade within a country can raise opportunity costs, the theory explains why trade with other countries is critical for Economic Growth. Put another way, foreign investment and trade stimulate the economy.

Economic growth is supported by international trade, a process deeply influenced by global events that impact the availability, demand, and pricing of goods and services (Belloumi, 2014). This interaction allows countries and individuals to access products that may not be produced domestically. For instance, international trade facilitates the exchange of diverse goods such as apparel, food, financial instruments like stocks, beverages such as wine, automotive parts, and a wide array of other commodities. Additionally, services such as banking and tourism are also traded across borders, contributing significantly to economic activity.

The exchange of goods and services is crucial for balancing national economies, fostering economic growth, and promoting specialization and efficiency in production. Furthermore, international trade enables countries to capitalize on their comparative advantages, ensuring that resources are used optimally and allowing consumers access to a broader range of products and services than would be available through domestic production alone. .International trade enables local firms to improve competitiveness by competing with and learning from foreign firms, and adopting advanced technology. (Amighini & Sanfilippo, 2014). In addition, international trade facilitates communication between trading partners, which can

result in the exchange of knowledge in advanced technologies, materials, manufacturing techniques, and managerial skills (Ali & Li, 2016). Global economic expansion is significantly facilitated by international trade. A nation's economy can also be strengthened by its participation in international trade, which also helps it work toward more general development objectives like employment, food security, gender equality, climate sustainability, and poverty reduction. International trade and its impact increase on the global economy when Foreign Direct Investment (FDI) is injected in the economy. Foreign Direct Investment (FDI) stands as a crucial factor for the advancement and prosperity of any nation. It provides a path for foreign individuals, corporations, or entities to invest in a host country, thereby catalyzing Economic Growth, generating employment opportunities, and fostering international trade. FDI includes various managerial aspects such as investments in bonds and foreign stock portfolios, essential in the globalization process. Similarly, FDI brings in external capital and promotes the transfer of advanced technology and managerial expertise (Alfaro, Chari, & Kanczuk, 2017).

Investment plays a crucial role in economic development at both national and local levels. By bringing in capital and creating jobs, it revives economies and boosts overall progress. It is widely adopted by countries aiming to accelerate growth and improve global competitiveness (Cicea et al., 2019). However, analysts differ on the exact benefits of FDI for host nations. According to (Lasbrey et al., 2018), FDI aims to facilitate the transfer of skilled individuals, advanced technologies, and financial resources from one country to another.

Gaur et al. (2018) studied data from 1983 to 2008 and found that Foreign Direct Investment (FDI) is closely linked to economic development. This shows that FDI plays a big role in helping economies grow and improve sustainably in different countries. Economic Growth means making more things over time. According to neoclassical Economic Growth theory, this happens because of four main things: how many people there are, how much stuff and money there is, how big the country is and what resources it has, and how much new technology is being used Astuti (2018). This theory also explains why countries benefit from trading and focusing on what they do best, which helps them grow economically by investing and trading with other countries.

1.2 Theoretical Framework

The Endogenous Growth Theory, developed in the 1980s and 1990s, explains how Economic Growth is influenced by factors inside a country, like education, innovation, and knowledge. It highlights that these internal factors, rather than just external influences like foreign investment and trade, play a key role in driving economic progress. Unlike earlier growth theories, which treated technological progress as an external factor, endogenous growth theory integrates it as a central component of the growth process (Romer, 1989; Lucas Jr, 1988).

Endogenous growth theory helps explain that technology and innovation are critical drivers of long-term Economic Growth. FDI serves as a major conduit for technology transfer, bringing advanced technologies and managerial expertise from investing countries to host countries. This transfer can lead to productivity improvements and the development of new industries in the host economy (Borensztein, De Gregorio, & Lee, 1998). The theory also emphasizes the importance of human capital. FDI contributes to human capital development by providing training and skill development opportunities to the local workforce. This not only enhances the productivity of the labor force but also fosters a culture of innovation and continuous improvement (Noorbakhsh, Paloni, & Youssef, 2001).

The Endogenous Growth Theory says that expanding markets is crucial for economies to grow. International trade helps countries access bigger markets outside their own borders. This allows businesses to produce more, lower costs, and become more efficient (Krugman, 1986). By trading internationally, countries can focus on making products they're best at, which uses their resources effectively and makes them more productive. This specialization leads to better use of resources and higher productivity, which leads to economic growth (Helpman, 1984). Trade also lets countries share ideas, technology, and ways of doing things. This sharing can lead to new inventions and better technology, which are important for growing economies (Grossman & Helpman, 1991).

Endogenous growth theory suggests that policies promoting trade and investment can have synergistic effects. For instance, trade liberalization can make a country more attractive to foreign investors by providing access to larger markets and

creating a more competitive business environment (Balasubramanyam, Salisu, & Sapsford, 1996). FDI and trade are often interlinked through global value chains (GVCs). MNCs establish production facilities in different countries to optimize their supply chains, which enhances trade flows and economic integration. Countries that successfully integrate into GVCs can experience significant growth by specializing in specific stages of production and benefiting from technology and knowledge transfers (UNCTAD, 2013).

The theory focuses on policies fostering a stable macroeconomic environment, investing in education and infrastructure, and promoting open trade and investment regimes can create a virtuous cycle of growth. These policies can enhance a country's ability to attract FDI, engage in international trade, and Economic Growth (R. Barro & Sala-i Martin, 2004).

Endogenous growth theory provides a comprehensive framework for understanding the interconnections between FDI, international trade, and Economic Growth. By focusing on the roles of technology, innovation, human capital, and knowledge diffusion, the theory explains how these elements interact to drive long-term economic development. This perspective highlights the importance of fostering an environment conducive to innovation, investment, and trade to achieve sustained Economic Growth.

This research incorporates innovation and human capital in the form of Foreign Direct Investment. Foreign Direct Investment paves the way for Economic Growth by injecting innovation in the form of new technology and enhanced managerial skills. This way, long-term development is achieved. FDI also promotes trade by aligning the local markets with the standards of global markets. The theme of Endogenous Growth theory can be seen in the study in the form of Foreign Direct Investment and its role in stimulating Economic Growth by increasing cross-border trade among countries and bringing innovation to local markets.

1.3 Research Questions

This research encompasses a multitude of interconnected variables that have a significant impact on each other. It is crucial to conduct a comprehensive analysis

of these factors to fully understand their significance and the value they add to the current body of knowledge.

The research aims to explore and provide insights into the following fundamental questions:

• What is the effect of International Trade on Economic Growth?

• What is the effect of International Trade on Foreign Direct Investment?

• What is the effect of Foreign Direct Investment on Economic Growth?

• How does Foreign Direct Investment mediate the relationship between International Trade and Economic Growth?

1.4 Research Objectives

This research project aims to provide a comprehensive analysis of the intricate relationship between International Trade and Economic Growth. The study intends to explore the direct and indirect effects of International Trade on Economic Growth, with a particular focus on the impact of Foreign Direct Investment (FDI) on Economic Growth.

Additionally, this study will investigate the interconnectedness of FDI and International Trade, and how they complement each other in promoting Economic Growth.

It is worth noting that both FDI and International Trade are crucial drivers of economic development, and understanding their role in the growth process is of utmost importance.

The research objectives are as follows:

• To determine whether International Trade has an impact on Economic Growth.

• To study the impact of FDI on Economic Growth?

• To study the impact of International Trade on Foreign Direct Investment.

• To study Foreign Direct Investment and its mediating role between International Trade and Economic Growth.

1.5 Motivation of the Study

The motivation behind this research is driven by the need to create and adopt effective strategies for sustainable development and global economic integration. Developing economies often face significant resource constraints and can benefit immensely from FDI and trade, which inject essential external capital, technology, and managerial expertise, leading to enhanced productivity and industrial growth (Alfaro et al., 2017). This influx not only helps economic expansion but also aids in poverty reduction, providing a clear empirical basis for policy action (Nowak-Lehmann D., Martínez-Zarzoso, Cardozo, Herzer, & Klasen, 2010). For policymakers, understanding these dynamics is crucial in designing policies that attract investment, improve infrastructure, and reduce regulatory hurdles (Saggi, 2002).

Therefore, understanding the dynamics of the global economy and its indicators would help to deeply analyze the role of Foreign Direct Investment in the progression of a country's economy. The role of cross-border trade is of pivotal importance and needs to be studied thoroughly to grasp its role in the sustainability of growth of economies.

Moreover, the technological advancements and innovations facilitated by FDI are vital for long-term Economic Growth, as they enable the transfer and absorption of new technologies (Kose, Prasad, Rogoff, & Wei, 2009). Integrating into global value chains (GVCs) through trade and FDI significantly enhances industrial capabilities, job creation, and export performance, which helps countries climb the value-added ladder (Fernandez-Stark & Gereffi, 2019). Additionally, research highlights the importance of economic resilience, showing that FDI provides stable capital inflows, reducing reliance on volatile short-term capital, while diversified trade relations mitigate the impact of external shocks (Chakraborty & Nunnenkamp, 2008). Achieving the United Nations' Sustainable Development Goals (SDGs) further emphasizes the need for optimized FDI and trade policies to foster inclusive and sustainable Economic Growth, reduce inequalities, and promote innovation (United Nations, 2023). Therefore, a comprehensive understanding of the interconnectedness between FDI, trade, and Economic Growth is

essential for formulating policies that drive resilient and sustainable development.

1.6 Plan of the Research

This research is divided into five chapters, with the first three focusing on the theoretical framework and the last two on the empirical analysis and findings.

Chapter 1 provides a comprehensive introduction to the study, setting the stage with the theoretical background that underpins the research. It also outlines the motivation behind the study, explaining why the research is important and what gaps it aims to fill. This chapter also presents the research questions that guide the investigation, the objectives that the study seeks to achieve, and the overall significance of the research in the broader academic and practical context.

Chapter 2 offers an extensive review of the existing literature on the topic. It synthesizes previous studies, highlighting key findings, methodologies, and theoretical perspectives that have shaped the current understanding of the subject. This chapter identifies gaps in the literature that the current study aims to address and situates the research within the broader academic discourse.

Chapter 3 explains the research methodology used in the study. It details the research design, data collection methods, and analytical techniques employed to investigate the research questions. This chapter provides a clear rationale for the chosen methodology and discusses any limitations or challenges encountered during the research process.

Chapter 4 presents the data analysis and results. It describes the data set, the analytical procedures applied, and the findings of the study. This chapter provides a detailed account of the empirical evidence, including statistical tests and interpretations of the results, and discusses how these findings relate to the research questions and hypotheses.

Chapter 5 concludes the study with a discussion of the main findings, their implications, and recommendations for future research. It summarizes the key conclusions drawn from the data analysis, offering insights into the practical and theoretical implications of the research. This chapter also outlines the limitations of the study,

acknowledging any constraints that may have impacted the results and suggesting areas for further investigation to build on the current research.

Chapter 2

Literature Review

Economic Growth has been a focal point of economic literature for decades, with seminal works shaping the understanding of its determinants and consequences. Solow (1957) neoclassical growth model laid the foundation by emphasizing that capital accumulation and technological progress play a crucial role in driving sustainable Economic Growth over the long run. Romer (1989) added to this frame work by emphasizing the importance of innovation and human capital through the introduction of the concept of endogenous growth.

A growth economy, as outlined by Fitriani (2019), is characterized by an augmentation of a nation's real GDP within a specific year, concurrently elevating the per capita income. Sukarno (2010) provides an alternative definition, describing a growth economy as an undertaking in economic development that culminates in an upswing in the production of goods and services by the general populace. Kermani and Afandi (2014) contributes to the discourse by defining a growth economy as the escalation of total output over a specified timeframe, irrespective of whether this increase surpasses or falls short of the overall growth prompted by population shifts and economic restructuring.

The significance of human capital was emphasized in empirical studies by Mankiw, Romer, and Weil (1992) and (R. Barro & Sala-i Martin, 2004) that looked into the importance of financial literacy in promoting the growth of the economy. In their seminal work on institutions, (Acemoglu & Robinson, 2012) contended that

to achieve sustainable Economic Growth, establishing inclusive and fair political and economic institutions is crucial.

2.1 International Trade and Economic Growth

International trade and Economic Growth are closely linked, a relationship extensively studied by economists. The basic idea is straightforward: increased trade between countries leads to Economic Growth. This growth occurs through mechanisms such as specialization, technology transfer, and market expansion. The literature reveals that countries actively engaged in international trade typically experience faster economic growth. This participation enhances access to advanced technologies, broader markets, and increased productivity. Dollar and Kraay (2004) and Frankel, Romer, and Cyrus (1996) are among the researchers who have documented this positive relationship. They found that countries with open economies, where trade barriers are low, tend to enjoy faster economic expansion. Trade allows countries to specialize in producing goods and services where they can produce more efficiently compared to other countries. This concept is known as comparative advantage.

Essentially, it means that each country focuses on making products where they have the lowest opportunity cost, which is the value of the next best alternative they give up when choosing to produce something else. By specializing in these areas of strength, countries can maximize their overall production and efficiency. This specialization boosts productivity and efficiency, leading to higher economic growth. As a result, countries involved in international trade often see more robust economic performance.

Moreover, international trade serves as a channel for the spread of new ideas, technologies, and best practices between countries. Rodrik (2008) highlights the role of trade in facilitating knowledge transfer and innovation, which are critical drivers of longterm Economic Growth. By engaging with foreign markets, firms are exposed to new technologies and production methods, which they can adopt and adapt to improve their own productivity. This process of technological diffusion accelerates economic development and enhances competitiveness on a global scale.

Another important aspect of international trade is its contribution to job creation and income growth. Feenstra and Hanson (1997) found that increased trade can lead to the creation of new job opportunities, especially in export-oriented industries. This is particularly beneficial for developing countries, where labor-intensive industries often thrive in the global marketplace. Additionally, trade can boost incomes by expanding market access for domestic producers, allowing them to sell their goods and services to a larger customer base.

However, the benefits of international trade can be influenced by various factors, including trade policies and regulations. Bergstrand (1985) and Krueger (1997) emphasize the importance of reducing trade barriers to unlock the full potential of trade as an engine of Economic Growth. Trade liberalization, through measures such as tariff reductions and removal of non-tariff barriers, can lead to increased trade flows, greater investment, and enhanced economic dynamism.

Furthermore, conducting cross-border transactions is a critical determinant of investment decisions and Economic Growth. Prasad and Shrimal (2014) highlight the role of efficient infrastructure, such as ports, and streamlined trade regulations in attracting foreign investment. Countries that provide a conducive environment for international trade, characterized by clear and transparent regulations, tend to attract higher levels of Foreign Direct Investment (FDI), which can increase economic development and job creation. International trade plays a central role in driving Economic Growth by facilitating technology transfer and expanding market opportunities. However, realizing the full potential of trade requires proactive measures to reduce trade barriers, improve infrastructure, and enhance regulatory frameworks. By embracing trade openness and fostering an enabling environment for international trade, countries can unlock new economic development and prosperity avenues.

Researches highlight the basic connection between global trade and Economic Growth as well as the impact of trade internationally on both. However, opinions on how international trade can impact economic activity remain largely divided. The theoretical explanations of David Ricardo and Adam Smith have provided an outline of the origins of these debates. Adam Smith was the first to explain that no party can have a complete advantage in every situation; otherwise, there

would be no trade with the other party. "Code of absolute advantage" refers to the ability of a party (individual, company, or nation) to produce at a higher or lower level than rivals while utilizing a significant number of resources (Naftaly, 2021).

International trade is a fundamental driver of Economic Growth, significantly influencing different aspects of economic activity. There is empirical evidence that strongly supports the crucial role it plays in promoting economic development. This evidence is diverse and varied. (Dollar & Kraay, 2004) conducted a comprehensive investigation of a wide range of nations, revealing a strong positive relationship between trade openness and Economic Growth. Their research revealed the correlation between states actively engaging in international trade and experiencing greater rates of GDP growth, highlighting the complex processes involved.

In addition, Frankel et al. (1996) provided a detailed analysis of the fundamental processes by which international trade promotes Economic Growth. Their groundbreaking research clarified the role of trade in promoting efficiency gains, optimizing resource allocation, and enhancing production. Trade promotes economic success by enabling countries to focus on producing commodities and services in which they have a competitive advantage, leading to specialization and a positive cycle of growth. The combination of this phenomenon, along with the increase in economies of scale and the spread of technological advancements, highlights the significant impact that international trade may have on generating long-term Economic Growth.

Moreover, international trade has a profound impact that goes beyond traditional economic measures, as it facilitates the spread of knowledge, technology, and innovation. Rodrik (2008) offered valuable insights into the influential role of trade in promoting technological advancement and the spread of knowledge across international boundaries.

Trade fosters an atmosphere that promotes innovation and creativity, leading to increased productivity and competitiveness in economies. This is achieved through the sharing of ideas, best practices, and technical break- throughs. (Grossman & Helpman, 1991) also stressed the interdependent connection between trade and

innovation, emphasizing that higher trade facilitates the spread of technology and, thus, generates additional economic expansion.

The literature on international trade has progressed from classical theories to contemporary complexities. The foundation was established by Ricardo's theory of comparative advantage (1817), which postulated that countries stand to gain from concentrating on the production of goods in which they are relatively efficient. Heckscher-Ohlin (1919) expanded on this by presenting the factor proportions theory, highlighting the part that factor endowments play in trade patterns. The gravity model of trade which considered the size and distance between trading partners was developed by Anderson and Van Wincoop (2003) and popularized by Tinbergen (1962) to help explain bilateral trade flows. The New Trade Theory developed by Krueger (1997) included both product differentiation and economies of scale.

Researchers Frankel et al. (1996) and Romalis (2007) conducted empirical investigations to examine how globalization affects Economic Growth. Their findings demonstrated a positive correlation between economic development and international trade. By addressing the difficulties of globalization and highlighting the significance of national policies in guaranteeing favorable results from trade, Rodrik (2008) made a valuable contribution to the body of literature.

The interrelatedness of international trade and the growth of the economy was examined empirically by Dollar and Kraay (2004) and Edwards (1999), providing insights into the varied experiences of nations. A growing body of research examines how trade in services and global value chains (GVCs) influence the dynamics of global trade and economic expansion Antràs, Fadeev, Fort, and Tintelnot (2022).

The connection between global trade and economic expansion has been extensively researched. According to Mogoe (2013), one of the most talked-about areas globally, including in South Africa, is international trade. These researchers evaluated how trade with other countries affected South Africa's economic expansion between 1990Q1 and 2013Q2. The findings indicated that imports hurt GDP and exports had a positive impact. According to Mogoe (2013), exports enhanced infrastructure and might accelerate South Africa's economic expansion. In their study, Javorcik (2008) conducted an in-depth analysis of the impact of

international trade on Pakistan's Economic Growth. The researchers employed the ordinary least-squares method to evaluate this relationship and draw conclusions about the nature of the relationship between the two variables. Researchers concluded that international trade was essential to the development of Pakistan's economy using time series data spanning from 1973 to 2010. A one-unit rise in exports translated into a 0.32-unit increase in GDP. When evaluating the impact of foreign trade on Nigeria's Economic Growth, (Azeez, Dada, & Aluko, 2014) reached similar conclusions. Utilizing the powerful ordinary least squares method on annual time series data spanning over a decade, researchers were able to extract valuable insights that could revolutionize the way we approach data analysis.

The findings backed the pivotal role of international trade as a strong variable of Pakistan's economic evolution. With each incremental increase in exports, the researchers discovered a consequential 0.32-unit surge in the nation's Gross Domestic Product (GDP).

Following the same lines of thought, (Azeez et al., 2014) also set out to find the link between foreign trade and Nigeria's Economic Growth. With the powerful tools of the ordinary least squares method, they carefully analyzed an annual time series that spanned more than a decade, revealing the complex web of economic dynamics.

International trade has been proven to have a positive impact on Economic Growth, as demonstrated by rigorous statistical testing. The evidence is clear that embracing international trade can lead to greater prosperity and a stronger economy. Nigeria's Gross Domestic Product increased by 0.359 units and 0.635 units, respectively, in response to increases in imports and exports.

Athukorala (2003) investigated how trade affected Turkey's Economic Growth concerning foreign trade. Additionally, the researchers restated the economic theory regarding the possible impact of trade liberalization on economic expansion in important sectors.

Understanding the significant relationship between international trade and Economic Growth is crucial to making informed decisions in today's globalized economy. By delving into this relationship, researchers can gain valuable insights into

the relationship between these two factors that shape our economic landscape. Jones (1994) created a model that shows how trade affects advancements in technology by combining endogenous growth and global trade. According to Acemoglu, Akcigit, Alp, Bloom, and Kerr (2018), the interaction between political and economic institutions determine the country's comparative advantage in the global economy.

2.2 Foreign Direct Investment and Economic Growth

Sokang (2019) conducted a study to assess the impact of Foreign Direct Investment (FDI) on the Cambodian economy. The study used a statistical technique known as the two-stage least squares method to obtain reliable results. The study aimed to determine the relationship between FDI and Economic Growth in Cambodia. The findings of this study could be of value to policymakers in formulating strategies for the development of the country's economy (Sokang, 2019).

Sokang (2019) used a series of data covering the years 2006–2016 to show how FDI contributes to Cambodia's Economic Growth. In Sokang's estimation, labor training, the transfer of contemporary technology, and the encouragement of learning by doing all contributed to the growth of Cambodia's economy through FDI. Sokang recommended that the Cambodian government continue its economic reforms to attract more foreign investment.

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By injecting capital and creating job opportunities, FDI stimulates local economy and contributes to overall development. It's a proven strategy for countries looking to accelerate their growth and compete effectively globally (Cicea et al., 2019). According to Lasbrey et al. (2018), the main goal of FDI is to make it easier for highly skilled individuals, technologies, and financial resources to relocate from their home countries to other destinations. Hence, divergent viewpoints exist among analysts regarding various benefits and advantages of Direct Foreign Investment for the host nations. Salahuddin et al. (2018) assert, drawing on the Johansen cointegration, that foreign direct investment (FDI) positively impacts GDP over the long term and facilitates globalization by increasing commerce. Industrialization and commerce are facilitated by direct investment in foreign nations. Economic development and foreign direct investment have a positive relationship, according to a heterogeneous panel analysis conducted between 1983 and 2008 Gaur et al. (2018).

Prasad and Shrimal (2014) researched the factors that affect the investment decisions of companies, particularly in the context of Foreign Direct Investment (FDI). They emphasize two key aspects: infrastructure efficiency and the regulatory framework governing international trade. Firstly, the authors underscore the pivotal role of infrastructure, with a particular focus on the efficiency of ports. Efficient port facilities are crucial for facilitating the smooth flow of goods and services across borders, as they serve as vital nodes in global supply chains. Countries with well-developed port infrastructure are better positioned to handle international trade flows, reducing transportation costs, and improving logistics efficiency. As a result, such countries become more attractive destinations for investment, as companies seek locations with robust infrastructure to support their operations. Secondly, Prasad and Shrimal (2014) highlight the importance of regulatory frameworks governing international trade. They emphasize that countries with simpler, more transparent, and business-friendly regulations tend to attract greater levels of investment. Streamlined trade regulations reduce bureaucratic hurdles and transaction costs associated with cross-border trade, making it easier for companies to

conduct business internationally. This ease of doing business fosters a conducive environment for investment, as companies are more inclined to invest in locations where they can navigate regulatory processes smoothly.

Contrary to the idea that FDI drives economic growth, research shows that economic growth can attract FDI into a country. For example, studies by Odhiambo (2023) in Kenya, Sarker and Khan (2020) in Bangladesh, Stamatiou and Dritsakis (2019) in Greece, Le, Do, Nguyen, and Sensoy (2021) in Vietnam, Ahmad, Khan, Ur Rahman, and Khan (2018) in ASEAN countries (Indonesia, Malaysia, the Philip- pines, Singapore, and Thailand), and (Sabharwal, 2020) in MINT countries (Mexico, Indonesia, Nigeria, and Turkey) all found that economic growth comes first and then brings in more FDI.

On the other hand, some researchers found that there is a two-way relationship between FDI and economic growth. For instance, studies by Lema and Dimoso (2011) in Tanzania, Ibrahim and Acquah (2021) in 45 African countries (using GDP per capita as a measure of economic growth), (Iqbal, Tang, & Rasool, 2023), and (Gibogwe, Nigo, & Kufuor, 2022) suggest that FDI helps boost economic growth, and in turn, this growth attracts even more FDI. This creates a positive cycle where both FDI and economic growth reinforce each other.

However, some studies suggest that foreign direct investment (FDI) doesn't necessarily cause economic growth. This idea is known as the neutrality hypothesis. Researchers like (Jayachandran & Seilan, 2010) in India, Aga (2014) in Turkey, (Kaur & Sharma, 2013) in India and China, (Louzi & Abadi, 2011) in Jordan, (Shawa & Shen, 2013) in Tanzania, Velnampy et al. (2014) in Sri Lanka, (Siddikee & Rahman, 2021) in Bangladesh, and (Agbloyor, Gyeke-Dako, Kuipo, & Abor, 2016) in sub-Saharan Africa found no clear link between FDI and economic growth in either direction.

Another study by Yimer (2023) focused on Africa and found that FDI can have a positive and significant impact on long term economic growth in countries where there's significant investment and factors of production. However, in fragile economies, the short term effects of FDI on economic growth were not as noticeable. While some research supports the idea that FDI boosts economic growth over time in certain conditions, other studies argue that the relationship between

FDI and economic growth is not always straightforward and can depend on various factors specific to each country and its economic situation.

These mixed results can be attributed to the different methods and time frames used in various studies. For example, Mustafa (2023) studied four Asian countries—India, Pakistan, Sri Lanka, and Bangladesh—and found varied outcomes. In India, the results supported the idea that economic growth leads to better financial development, increased FDI, and more open trade. In Pakistan, the results showed that economic growth leads to better financial development and increased FDI. For SriLanka, the findings supported that FDI and trade openness drive economic growth. However, in Bangladesh, no significant relationships were found in the short term.

In Cote d'Ivoire, Keho (2017) found that being open to trade helps the economy grow both in the short term and over the long term. This shows how important it is to look at each country's situation and the period when studying how foreign investment, openness to trade, and economic growth are connected. At the end of their journey, they were sure that foreign trade had a big impact on Nigeria's economy. Nigeria's GDP went up by 0.359 units and 0.635 units for every increase in imports and exports. This shows how global trade has had a huge effect on the country's economy. Also, Cevic, Atukeren, and Korkmaz (2019) did an interesting study to look into how trade liberalization affected Turkey's Economic Growth. This showed how trade liberalization has the power to change things.

2.3 International Trade and Foreign Direct Investment

Foreign Direct and International Trade have also been looked at a lot over the past few years. The connection between Foreign Direct Investment (FDI) and International Trade in the world economy is very interesting to scholars. The study starts with Dunning's eclectic paradigm, which is a basic beat that brings together the factors that affect companies' decisions to invest in other countries (Dunning, 1977). Recent studies by (Cuervo-Cazurra, Silva-Rêgo, & Figueira,

2022) give us new insights, like a well-choreographed sequence, by showing how the quality of institutions and governance structures affect the specifics of choices about foreign direct investment.

Along with the benefits of international trade, Foreign Direct Investment (FDI) is a big part of what makes economies grow. A lot of research has been done that clearly shows how important foreign direct investment (FDI) is for increasing output, encouraging growth based on exports, and encouraging new ideas in the economies of the countries that receive the investments. Researchers (Blomström, Kokko, & Mucchielli, 2003) did a thorough study in 2003 that showed many benefits of foreign direct investment (FDI). Some of these benefits are the sharing of technology, the growth of skills, and the building up of infrastructure. Their study showed that foreign direct investment (FDI) has a big effect on speeding up structural change and promoting Economic Growth that benefits everyone.

Similarly, (Sauvant, 2016) said that people are more likely to start their businesses if they don't have to deal with strict rules and taxes. In their argument, they said that a country with easy exit rules would likely get more FDI, which would be better for its Economic Growth than a country with strict rules. (Prasad & Shrimal, 2014) said that the rules for trade between countries, as well as how efficient the ports and other infrastructure sites are, are very important when choosing a country for FDI. Cross-border trade rules that are easy to follow have been looked into as a major factor in FDI choices and the growth rates of countries that receive FDI. Cebula (2014) explain that strong defence of property rights brings in foreign direct investment (FDI) and helps the economy grow. Choi (2018) said that differences in economic rules about the product, quantity, and price, or in the way the market is structured in general, can affect a foreign company's choice to invest. All of these studies show that changes in a host country's rules can have a big effect on the amount of FDI that comes in and, later, on the country's Economic Growth. So, we think that the amount of FDI and its effects on growth in a host country can be very different depending on its regulatory system.

Sauvant (2016) says that a country's rules and taxes have a big impact on whether people and companies choose to start new businesses. They say that businesses are more likely to want to move to countries with fewer rules and lower taxes. This

shows how important it is to have rules that are easy to follow, especially when it comes to how businesses can start and stop running. This kind of adaptability is very important for bringing in Foreign Direct Investment (FDI), which is when a business invests in another country. According to Sauvant, countries that make it easier for businesses to join and leave are more likely to get FDI, which can help their economies grow faster.

It was Ricardo who came up with the comparative advantage theory in 1817. This theory sets the trend for international trade, which encourages specialization and efficiency on the world dance floor (Ricardo, 1895). On the other hand, (Amiti, Itskhoki, & Konings, 2019) technological twist changes the tune, showing the effects of non-tariff trade barriers and casting light and shade on the patterns of modern trade policy (Amiti et al., 2019). Javorcik (2008) show us the development that foreign investment causes by walking us through the complicated steps of technology transfer and spillover effects.

According to Wei, Qin, Li, Zhu, and Wei (2019), government policies are like a big ballroom. They show how regulatory quality can guide FDI flows. Multinational companies (MNEs) change how they do things to keep up with the fast-paced world of technology. Van Assche (2022) add a new piece to the grand music of global business by looking into the rhythmic strategies of MNEs and expertly combining new ideas with old ones. Each study adds a new note to the complicated relationship between trade and foreign direct investment. Over time, the literature takes shape and turns into a beautiful tune that shows how the global economy moves to the beat of a dynamic dance.

Numerous studies have explored the connection between international trade and Economic Growth. For instance, Mogoe (2013) emphasized the significant impact of international trade on South Africa's economy. Their research, covering the period from 1990 Q1 to 2013 Q2, revealed that exports played a crucial role in boosting South Africa's GDP, while imports had a lowering effect. They highlighted that exports not only improved infrastructure but also contributed to accelerating South Africa's overall Economic Growth.

The research findings indicate a positive correlation between Economic Growth, inward foreign direct investment (FDI), and exports in Turkey. This aligns with

Turkey's strategy of promoting growth through exports, a policy initiated in 1980. The study underscores the importance of attracting foreign investment and implementing policies that foster Economic Growth. Pereira and Xu (2000) employed a VAR (Vector Autoregression) approach to analyze how export growth impacts GDP, domestic employment, and investment across 39 economies. Their results strongly supported the export-led growth hypothesis, showing that export expansion positively influenced GDP growth in 30 countries. However, in six countries with a more inward focus, export growth had negative effects on GDP, highlighting the indirect impacts of exports on economic performance. This study underscores the critical role of international trade in driving Economic Growth and underscores the necessity for countries to adopt strategies that prioritize exports. Meanwhile, C. P. Nguyen, Le, and Su (2020) study on Vietnam from 2000 to 2018 examined the relationship between FDI, international trade, and Economic Growth. The findings revealed a significant positive influence of FDI on Vietnam's Economic Growth, emphasizing the economic benefits derived from foreign investment and trade.

Export also had a positive impact on Economic Growth, while import had a negative but not statistically significant effect. The results provide valuable insights for policymakers in Vietnam on enhancing the effects of FDI and international trade on Economic Growth. Hemerijck, Van der Meer, and Visser (2000) examined the economies of Belgium and the Netherlands, two smaller members of the European Union with strong reliance on imports and exports. Both countries have specialized in different industries, with Belgium focusing on light industry and services, while the Netherlands specializes in transport, logistics, and international finance. The study highlights the importance of trade liberalization and product specialization in driving Economic Growth in these transit economies. Odhiambo (2023) investigated the causal relationship between FDI and Economic Growth in Kenya from 1980 to 2018. The study found a unidirectional causal flow from Economic Growth to FDI in Kenya, indicating that the country's strong Economic Growth has been driving FDI inflows. These results underscore the importance of pursuing robust macroeconomic policies to attract FDI and promote Economic Growth. Ciftci and Durusu-Ciftci (2022) conducted an analysis to explore how economic

freedom, foreign direct investment (FDI), and Economic Growth interacted in the top FDI-attracting countries from 1995 to 2019. Their findings revealed that there was only weak evidence supporting direct causal relationships between economic freedom, FDI, and Economic Growth.

Importantly, the direction and strength of these relationships varied significantly depending on the specific country and the economic freedom indicators used in the study. These nuanced findings are crucial for policymakers seeking to understand the complex dynamics between economic policies, FDI inflows, and overall Economic Growth.

In another study, Cambazoglu and Karaalp (2014) provided empirical evidence regarding the impact of FDI and international trade on Turkey's Economic Growth, focusing specifically on the period after economic liberalization. Their research highlighted a positive association between Economic Growth, inward FDI, and exports in Turkey. This finding underscores Turkey's strategic emphasis on leveraging export-oriented growth strategies since 1980 to bolster its economic development. The study emphasized the necessity of attracting foreign capital and implementing policies aimed at fostering sustained Economic Growth through increased export activities and foreign investment inflows.

In research by Pereira and Xu (2000), a VAR method was applied to examine how the growth of exports influenced the development of GDP, local employment, and investment across 39 economies. Their findings strongly upheld the theory that growth in exports positively impacts GDP growth in 30 countries. However, in six economies that were more focused internally, the effects were negative, highlighting the importance of indirect export effects on GDP growth. This study underscores the critical role of global trade in stimulating Economic Growth and underscores the necessity for nations to adopt policies that prioritize exporting.

Meanwhile, C. P. Nguyen et al. (2020) investigated the effects of foreign direct invest- ment (FDI) and international trade on Vietnam's Economic Growth during 2000- 2018. The study revealed significant connections between FDI and international trade with Vietnam's Economic Growth, where FDI demonstrated a robust and statistically significant positive impact. Export activities also positively influenced Economic Growth, while the impact of imports was negative, albeit not

statistically significant. These insights offer valuable guidance to Vietnamese policymakers on strategies to maximize the benefits of FDI and international trade for promoting sustained Economic Growth.

Hemerijck et al. (2000) examined the economies of Belgium and the Netherlands, two smaller members of the European Union with a strong reliance on imports and exports. Both countries have specialized in different industries, with Belgium focusing on light industry and services, while the Netherlands specializes in transport, logistics, and international finance.

The research emphasizes how opening up trade and focusing on specialized products can boost Economic Growth in economies that serve as transit hubs. Odhiambo (2023) investigated how Economic Growth influences Foreign Direct Investment (FDI) in Kenya from 1980 to 2018. The study revealed a one-way causal relationship where Kenya's robust Economic Growth drove increased FDI inflows.

These findings stress the need for strong macroeconomic strategies to attract FDI and foster Economic Growth. Ciftci and Durusu-Ciftci (2022) examined the causal connections among economic freedom, FDI, and Economic Growth in leading FDI-receiving nations from 1995 to 2019. The study found limited evidence supporting direct causal links between economic freedom, FDI, and Economic Growth, with the direction of influence varying based on each country's economic freedom indicators. These results hold significant implications for policymakers aiming to grasp the intricate dynamics between economic policies, FDI flows, and overall Economic Growth.

In a study by Cambazoglu and Karaalp (2014), the impact of inward FDI and international trade on Economic Growth in Turkey during the post-liberalization period was analyzed. The study found a positive relationship between Economic Growth, inward FDI, and exports in Turkey, highlighting the importance of attracting foreign capital and implementing policies to promote Economic Growth.

The results provide valuable insights for policymakers in Turkey enhancing the effects of FDI and international trade on Economic Growth. In conclusion, the literature review of the provided research papers highlights the significant role of international trade, FDI, and Economic Growth in driving economic development.

The studies emphasize the importance of adopting export-oriented policies, attracting foreign capital, and pursuing robust macroeconomic policies to promote Economic Growth. The findings provide valuable insights for policymakers and researchers in understanding the complex relationships between international trade, FDI, and Economic Growth and formulating effective strategies to enhance economic development. The relationship between Economic Growth, international trade, and foreign direct investment (FDI) has been a topic of interest for researchers studying the dynamics of emerging economies. Several research papers have delved into this relationship, shedding light on the intricate connections between these variables and their impact on the overall economic development of countries. In this literature review, we will explore the findings of various studies to provide insights into the role of FDI, international trade, and Economic Growth in different contexts. Hobbs, Paparas, and AboElsoud (2021) conducted a study on Albania, a country that has undergone significant economic transformations since the fall of communism in 1989.

In their study on Albania, researchers investigated how foreign direct investment (FDI), trade activities, and economic growth are interrelated. They used econometric tests to analyze data on FDI inflows, exports, and GDP. The results showed that there is a significant and long-term relationship between FDI, trade openness, and economic growth in the country. Specifically, they found that economic growth plays a crucial role in driving increases in both exports and FDI in the short term. The study underscored the importance of promoting FDI that focuses on technology and exports as strategies to enhance Albania's competitiveness in the global market. This approach is seen as vital for integrating Albania more deeply into the global economy and capitalizing on its comparative advantages. By fostering these types of investments, Albania can not only boost its economic output but also improve its technological capabilities and expand its market reach. This aligns with broader economic development goals aimed at achieving sustainable growth and increasing prosperity over the long term.

Overall, the research emphasizes the dynamic interactions between FDI, trade openness, and economic growth, highlighting the need for targeted policies and strategies that leverage foreign investments to strengthen Albania's position in

the global economic landscape. Degutis & Tvaronavi ˇciene˙, (2006) focused on the Baltic States and analyzed trends in FDI inflows and the macroeconomic factors influencing FDI from capital- exporting countries. The study examined conditions under which FDI could re- place exports or imports and explored the impact of labor costs and tax burdens on foreign investment decisions. The researchers used a statistical method to study how economic factors influence Foreign Direct Investment (FDI) in Lithuania and Estonia. Their findings suggested ways to improve FDI regulations in Lithuania.

In another study, Choi (2018) compared BRICS countries to understand how education and skills affect their economies. They used a model to analyze data from 1997 to 2020, finding that education and FDI have mutual impacts in China, FDI mainly boosts education in Brazil, and other relationships vary across different countries. This study stressed the importance of education in sustaining economic growth in BRICS nations. Ghazalian (2023) investigated how Economic Growth affects FDI flows in host countries using a statistical technique. The study concluded that Economic Growth consistently increases FDI over time.

The research also identified variations in the effects of Economic Growth on FDI across different regions and economic variables, emphasizing the need for growth-enhancing policies tailored to the specific characteristics of host countries.

Holmen, Gavoille, Masso, and Burinskas (2023) focused on the internationalization of small and open economies, emphasizing the importance of studying trade, FDI, and international migration for understanding economic developments. The researchers demonstrated how regional account data could be constructed to analyze the relationship between internationalization and Economic Growth in the Baltic states. By providing comprehensive data on regional socio-economic variables, the study aimed to facilitate spatial research on internationalization and the spatial economy in the region.

Lin and Park (2023) investigated the impact of international trade, FDI, and human capital on Taiwan's Economic Growth in the ICT industry. The study utilized data mining, semantic network analysis, and the vector error correction model to analyze the interactions between these variables. The results showed

that FDI-HC and ET-HC variables significantly influenced GDP, highlighting the importance of human capital in driving Economic Growth in Taiwan's ICT sector.

In conclusion, the literature review of these research papers underscores the complex interplay between Economic Growth, international trade, and FDI in shaping the economic development of countries. The findings highlight the importance of investing in human capital, promoting export-oriented FDI, and designing growth-enhancing policies tailored to the specific characteristics of host economies. Policymakers and researchers can draw valuable insights from these studies to inform their strategies and analyses in the field of international economics and development.

2.4 International Trade, Foreign Direct Investment and Economic Growth

The relationship between Foreign Direct Investment (FDI), Economic Growth, and International Trade remains a central theme in today's economic literature. Dunning (1977) eclectic paradigm, which offers a thorough framework for comprehending the various factors influencing FDI decisions, is still a mainstay. Recent studies have shed more light on the intricate relationships between foreign direct investment (FDI) and Economic Growth as businesses expand internationally.

The role of foreign investment in promoting Economic Growth has been advanced by the significant work of Borensztein et al. (1998), which highlighted the positive spillover effects of FDI on the productivity and technological advancements of host countries. The complex relationship between international trade and Economic Growth is also examined concurrently by Frankel et al. (1996), who highlight the important role that trade openness plays in overall Economic Growth, especially in emerging economies where FDI and international trade work together to promote sustained growth.

Liu and Wang (2003) investigation into the relationship between foreign direct investment (FDI) and international trade reveals even more complexity. Their results show a symbiotic relationship between these economic forces, with FDI

stimulating imports as well as exports in a bidirectional causal manner. Rugman and Verbeke (2003) highlight MNEs' strategic moves in this choreography, showing how MNEs use FDI strategically to maximize their international operations and negotiate the world trade landscape.

International trade is crucial for Economic Growth, impacting many areas of economic activity. Studies show its significant role in promoting economic development. For example, research by Dollar and Kraay (2004) found a strong positive link between trade openness and Economic Growth. Countries involved in international trade tend to have higher GDP growth rates, highlighting the complex benefits of trade. Frankel et al. (1996) explored how international trade boosts Economic Growth by improving efficiency, optimizing resource allocation, and increasing productivity. Trade allows countries to specialize in producing goods and services where they have a comparative advantage, creating a cycle of economic prosperity. This leads to economies of scale and the spread of technological innovations, demonstrating trade's transformative potential in driving long-term Economic Growth.

Trade also promotes the exchange of knowledge, technology, and innovation. Rodrik (2008) emphasized how trade fosters technological progress and knowledge sharing across borders, creating an environment that encourages innovation. Grossman and Helpman (1991) highlighted the connection between trade and innovation, showing that increased trade enhances technological diffusion, which further stimulates Economic Growth.

Foreign Direct Investment (FDI) is another powerful driver of Economic Growth, complementing international trade. Numerous studies show FDI's role in improving productivity, promoting export-led growth, and encouraging innovation in host economies. Blomström et al. (2003) found that FDI brings many benefits, such as technological spillovers, skills enhancement, and infrastructure development, helping accelerate structural transformation and inclusive Economic Growth.

Alfaro (2017) examined how FDI contributes to Economic Growth by creating jobs, developing skills, and transferring knowledge. Multinational corporations, by investing in host countries, use their expertise and capital to stimulate lo- cal economies, leading to higher productivity and competitiveness. The combined

effects of international trade and FDI create new opportunities for sustainable development and prosperity. Blomström et al. (2003) also noted that FDI often increases trade activity, as multinational corporations use host country markets for both domestic consumption and export production.

Markusen (1995) discussed the mutual relationship between trade openness and FDI attraction, highlighting the need for transparent regulations, efficient infrastructure, and stable institutions. By creating an enabling environment for both trade and FDI, countries can maximize their growth potential, leading to higher levels of economic prosperity and development. A modern viewpoint is presented by recent research, such as Alfaro (2017), which explores the varied effects of FDI on Economic Growth in various nations. The results of this study highlight how important policies and features of the host nation are in influencing how much FDI supports long-term Economic Growth. FDI serves as a channel or mechanism through which the impact of international trade is transmitted to Economic Growth. Increased international trade might attract more FDI, leading to the transfer of technology, skills, and capital, positively influencing Economic Growth. In this scenario, FDI acts as a mediator between international trade and Economic Growth.

Recent research, such as the study by Alfaro et al. (2017), offers a contemporary perspective on the diverse impacts of FDI on Economic Growth in different countries. This research underscores the significance of host country policies and characteristics in determining the extent to which FDI contributes to sustainable Economic Growth. FDI functions as a conduit through which the benefits of international trade are transmitted to Economic Growth. Enhanced international trade can attract more FDI, resulting in the transfer of technology, skills, and capital, which subsequently boosts Economic Growth. In this context, FDI acts as a bridge connecting international trade and Economic Growth.

C. P. Nguyen et al. (2020) conducted an in-depth analysis of how FDI and international trade influenced Vietnam's economy from 2000 to 2018. The study found a significant positive impact of FDI on Economic Growth, while exports also contributed positively. However, imports had a slight negative effect, though it was not statistically significant.

These findings provide valuable guidance for Vietnamese policymakers on leveraging FDI and trade to drive Economic Growth. Similarly, Degutis and Tvaronaviciene˙ (2006) examined FDI trends in the Baltic States, focusing on the macroeconomic factors affecting FDI from capital-exporting countries. They explored how FDI could substitute exports or imports and the impact of labor costs and tax burdens on investment decisions. Their analysis revealed the causal relationship between macroeconomic variables and FDI, offering insights for refining FDI policies in Lithuania.

In 2023, Choi (2018) compared BRICS countries to understand the connection between human capital and economic factors. Using a panel vector autoregressive model from 1997 to 2020, they found a two-way relationship between human capital and FDI in China and noted significant links between FDI, GDP, imports, and exports in other BRICS countries. This study emphasized the importance of investing in human capital to support long-term Economic Growth. Ghazalian (2023), study used the Generalized Method of Moments (GMM) to examine how Economic Growth affects FDI in host countries. The findings showed that Economic Growth positively influences FDI, highlighting the need for growth-boosting policies tailored to the specific needs of host countries. These results underscore the importance of creating an environment conducive to both FDI and Economic Growth.

Holmen et al. (2023) investigated the internationalization of small, open economies, emphasizing the need to study trade, FDI, and international movement to understand economic changes over time. They demonstrated how regional data could be used to examine the interaction between internationalization and Economic Growth in the Baltic states, providing a framework for future research in this area.

Prasad and Shrimal (2014) explored the factors influencing FDI decisions, highlighting the importance of infrastructure and trade regulations. Efficient port facilities, for example, are critical for the smooth flow of goods and services, making countries with good infrastructure more attractive for investment. Simplified and business-friendly trade regulations also play a key role in attracting FDI, facilitating international operations for companies.

Studies also highlight how FDI and trade fuel each other's growth. For instance, Alfaro (2017) found that foreign investment often leads to increased exports as companies boost production for foreign markets. Similarly, Markusen (1995) noted that trade openness attracts more FDI by signaling market potential and easing entry for foreign companies. This reciprocal relationship between FDI and trade creates a cycle that drives Economic Growth, creating jobs, fostering innovation, and promoting overall development.

In conclusion, this literature review illustrates the interconnectedness of Economic Growth, international trade, and FDI. The findings provide valuable insights for policymakers and researchers in international economics and development, emphasizing the importance of investing in human capital, promoting export-oriented FDI, and implementing growth-enhancing policies tailored to host countries' specific needs. The ongoing study of the relationship between FDI, Economic Growth, and international trade reveals a complex and evolving narrative, helping to deepen our understanding of the forces shaping the global economy. Policymakers aiming to stimulate Economic Growth should consider strategies that support trade liberalization and attract FDI, leveraging the synergies between these factors to achieve sustained and robust economic development.

2.5 Control Variables and their Relation to Economic Growth

Economists have studied how inflation affects Economic Growth by looking at different aspects of this relationship. Inflation means prices of things go up over time. How much and how long inflation lasts can greatly impact Economic Growth, depending on the situation. This essay uses what researchers have found in their studies to explore how inflation and Economic Growth are connected.

Understanding the "inflation threshold" is important in how inflation impacts economic growth. Research suggests that moderate inflation can be good for economic growth to a certain extent. Fischer (1993) showed that moderate inflation can lower real interest rates, which can encourage businesses and people to invest

and spend more. However, if inflation gets too high, it can cause problems. It might lead to resources being used poorly, create uncertainty, and mess up how prices compare to each other, which can slow down economic progress.

Empirical research has shown mixed results regarding the exact nature of the relationship between inflation and Economic Growth. Many studies, like R. J. Barro (1995), found a negative correlation between high inflation rates and economic performance, noting that inflation rates above 10% annually are associated with lower Economic Growth. Similarly, Bruno and Easterly (1998) argued that high and fluctuating inflation rates can lead to improper resource allocation, reducing productivity growth and investment.

Trade openness is another essential component of macroeconomic analysis. Trade openness refers to the extent to which a country allows goods and services to flow across its borders. Trade openness is believed to promote Economic Growth by enhancing competition, encouraging efficiency, and facilitating the transfer of technology and knowledge. Fischer (1993) argued that trade openness is crucial for Economic Growth, as it allows countries to benefit from global markets and improve their productivity.

Empirical studies support the idea that countries with more open trade tend to see faster economic growth. R. J. Barro (1995) found that higher trade openness is linked to higher rates of economic growth. Similarly, research by Frankel et al. (1996) showed that open trade helps economies become more efficient and innovative, which boosts economic growth. Financial development also plays a crucial role in economic growth by making financial institutions and markets more efficient and accessible within a country. A well-developed financial system helps gather savings from households and businesses, directs these savings into productive investments, and manages risks effectively. These functions are important for stimulating economic activity and promoting long-term growth.

Researchers like Levine (1997) highlight that strong financial institutions and markets are essential for ensuring that money is invested wisely across different sectors of the economy. This efficiency leads to higher productivity and more innovation, both critical for economic growth. When financial systems work well, businesses can get the funds they need to expand, invest in new technologies, and improve

their efficiency. This, in turn, supports overall economic growth and development. Studies, such as those conducted by Levine (1997), have shown a clear positive correlation between financial development and Economic Growth. Countries with more developed financial systems tend to experience higher rates of economic expansion. This relationship is attributed to several factors: first, well-functioning banks and financial markets enable smoother transactions and investments; second, they facilitate the diversification of risks, thereby encouraging more substantial and sustained investment in productive activities. Similarly, Beck, Levine, and Loayza (2000) argued that improving financial systems enhances investment efficiency and stimulates innovation, thereby fostering Economic Growth.

Interest rates are another significant factor influencing economic dynamics. Smith-Walter, Jones, Shanahan, and Peterson (2020) found that changes in interest rates significantly impact investment decisions and overall Economic Growth. Their research indicated that interest rates affect borrowing costs and investment choices, with complex relationships between interest rates and various economic indicators. However, the precise nature of this relationship remains debated, with differing views on using interest rates as a policy tool to stimulate Economic Growth.

Smith-Walter et al. (2020) highlighted the critical role of interest rates in shaping economic dynamics. Their research suggested that changes in interest rates significantly affect investment decisions and overall Economic Growth. Lower interest rates can stimulate investment by reducing borrowing costs, while higher rates can curb investment by making borrowing more expensive. This relationship underscores the importance of monetary policy in managing Economic Growth.

The relationship between inflation, trade openness, financial development, exchange rates, interest rates, and Economic Growth is complex and interlinked. Policymakers need to consider these factors to create environments conducive to robust and lasting economic development. Understanding these dynamics helps deepen our knowledge of the forces shaping the global economy and offers guidance for creating policies that promote sustainable Economic Growth.

In conclusion, this review highlights the interconnectedness of inflation, trade openness, financial development, exchange rates, interest rates, and Economic Growth. The findings provide valuable insights for policymakers and researchers in

international economics and development, emphasizing the importance of managing inflation, maintaining stable exchange rates, promoting financial development, and carefully considering interest rate policies to achieve sustainable Economic Growth.

2.6 Research Gap and Significance

This research is important because it explores a new way of looking at the relationship between international trade and economic development. Although international trade and Economic Growth have been studied together many times (Shahzad, He, & Muhammad, 2023), and the connection between Foreign Direct Investment (FDI) and Economic Growth has also been examined (Yimer, 2023), the direct relationship between international trade and FDI has shown positive results (C. D. T. Nguyen, 2022).

However, there is a gap in past research when it comes to understanding how FDI acts as a middle factor between international trade and Economic Growth.

While many studies have looked at these variables separately or in different combinations, this research focuses specifically on how FDI mediates the relationship between international trade and Economic Growth. The study looks at how international trade can lead to Economic Growth through the influence of FDI. This study aims to provide new insights and a deeper understanding of how these factors drive economic development by examining this specific connection.

2.7 Hypotheses

Our research paper comprises of the following hypothesis:

H1: There is a positive relationship between FDI and Economic Growth.

H2: There is a positive relationship between International Trade and Economic Growth.

H3: There is a positive relationship between International Trade and FDI.

H4: FDI mediates the relationship between International Trade and Economic Growth.

2.8 Theoretical Framework

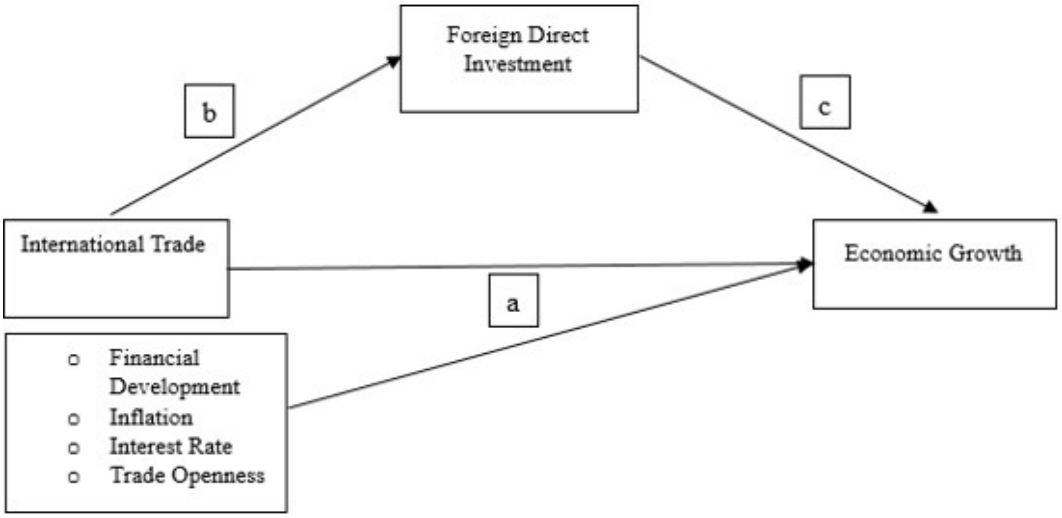

FIGURE 2.1: Theoretical Framework

Chapter 3

Research Methodology

According to the study, the dependent variable is economic growth. Therefore, study uses per capita real GDP to proxy Economic Growth. Similarly, the independent variable International Trade represents a percentage of cross-border exchange w.r.t other countries. The Mediator here; Direct Foreign Investment plays a very integral role and is proxied by the ratio of net inflows per annum globally. The study sample included various developing countries in the world alongside other countries as well and the data is collected based on the general accessibility of the data. Panel data estimation techniques have been used in this research to study the relationship between International Trade, Foreign Direct Investment, and Economic Growth.

Data initially was collected from around 165 countries and the time frame selected for this data source was from 1965 to 2022. To collect the data, the World Bank's official site was used. World Development Indicators were used to extract data for the variables of interest. Data was collected from World Bank. World Development Indicators (WDI) were used to determine the accurate proxy of our variables. As the research progressed, due to the unavailability of data, the research demanded skimming of data. To ensure precision and accuracy, a convenience sampling technique was used. This study then used data from over 150 countries whose data was available between 2000 and 2022. The main reason for cutting down from 165 to 110 countries was to exclude such countries whose data was not easily available.

Several control variables were also used to study a much more detailed and in depth impact of the main variables. Going through the literature, Trade openness, Financial Development, interest rate, and inflation were found to be the most impactful and effective control variables. Therefore, this research also studied these variables and their impact as well.

To estimate results, the study used GMM abbreviated for Generalized Method of Moments. Generalized Method of Moments (GMM) is a highly effective statistical technique that is widely used for estimating parameters in econometric models. Unlike classical methods such as Ordinary Least Squares (OLS), GMM offers a flexible framework that can handle a wide range of complex modeling situations where traditional assumptions may not hold. GMM is particularly useful in dealing with problems such as endogeneity, measurement error, and heteroscedasticity that often arise in econometric analysis. As a result, GMM has become an essential tool for econometric researchers and analysts who require accurate estimates of model parameters and meaningful statistical inference.

Structural Equation Modeling (SEM) is also used which is a statistical technique used to analyze and validate complex relationships among observed and latent variables. It integrates the elements of factor analysis and multiple regression into a unified framework, allowing the study to examine the interrelationships among variables and test theoretical models.

In this study, Sobel's test was applied to assess whether FDI acts as a mediator between international trade and Economic Growth. The Sobel test is a statistical method used to determine the significance of mediation effects in regression-based analyses. It calculates a z-score, which indicates whether the indirect effect (in this case, through FDI) is statistically significant.

After conducting regression analyses to examine how international trade affects Economic Growth directly and indirectly through FDI, the study obtained estimates for both the direct and indirect effects. These estimates were then evaluated using Sobel's test to determine if the indirect effect via FDI was significantly different from zero. By applying Sobel's test, the study confirmed that FDI plays a significant role as a mediator in the relationship between international trade and Economic Growth. This statistical validation supports the study's findings

and contributes to a clearer understanding of how FDI channels the impact of international trade on Economic Growth.

3.1 Statistical Techniques

3.1.1 Generalized Methods of Moments

The Generalized Method of Moments (GMM) is a statistical method used in econometrics and other research fields to estimate parameters in statistical relationships or econometric models. It was introduced in the early 1980s by economists Lars Peter Hansen and Robert J. Hodrick. GMM is a flexible and comprehensive estimation technique that can be applied to both linear and nonlinear models. It is particularly useful when the data does not follow a normal distribution or when traditional estimation methods, like least squares, are not suitable.

GMM is especially helpful in handling cases of unknown heteroskedasticity (where the variability of errors is not constant). Hansen (2010) developed GMM to deal with such issues. The method uses the orthogonality criterion to ensure accurate estimation even when heteroskedasticity is present. Over the past 20 years, GMM has become a widely respected tool among empirical researchers (Baum et al., 2003). It is also a useful teaching tool in graduate econometrics, where conventional estimators like Instrumental Variables (IV) and Ordinary Least Squares (OLS) are often presented as specific examples of GMM estimators.

Compared to methods like OLS, GMM offers a more flexible and reliable estimation approach. It is particularly useful when data does not meet the linearity, homoscedasticity, or normality assumptions required by OLS. GMM can handle models with endogeneity (where explanatory variables are correlated with the error term), measurement errors, and other issues that often arise in empirical research. Researchers use GMM to estimate parameters in panel data analysis, time series analysis, and dynamic economic models.

To obtain accurate parameter estimations, it is crucial to carefully analyze the moment conditions and choose appropriate instrumental variables. GMM can address three types of endogeneity: simultaneity (where variables mutually influence

each other), dynamic endogeneity (where past values influence current values), and unobserved heterogeneity (where unobserved factors affect the relationship). For example Wintoki et al. (2012) found GMM to be superior in analyzing the relationship between corporate governance, corporate social responsibility, and business success using panel data.

In this study, research employed Difference Generalized Method of Moments (GMM) to estimate the results. GMM is a statistical method known for its capability to handle complex models that have issues like endogeneity (where variables are correlated with the error term) and heteroskedasticity (where the variability of errors is not constant). The study selected suitable instruments (variables used to address endogeneity) and applied orthogonality conditions (which ensure that the instruments are uncorrelated with the error term) within the GMM framework. This approach enabled them to obtain robust parameter estimates, which are reliable measures of how changes in one variable affect another.

Specifically, the study focused on understanding the relationships between international trade, Foreign Direct Investment (FDI), and Economic Growth. By using GMM, the research was able to explore how FDI acts as a mediator between international trade and Economic Growth. The study investigated how changes in international trade activities influence FDI, which in turn affects Economic Growth. Overall, the use of GMM in this study provided valuable insights into the dynamics of economic development by clarifying the intricate connections between international trade, FDI, and Economic Growth.

3.1.2 Structural Equation Modeling

Structural Equation Modeling (SEM) is a statistical technique used to analyze relationships between observable and hidden variables in various fields. It consists of a structural model that defines directional paths and a measurement model that links latent variables with observed ones.

SEM is advantageous because it can handle complex models with multiple variables simultaneously, while also accounting for measurement errors using error terms and evaluating model fit with various indices. This comprehensive approach

helps researchers understand underlying structures within data, proving valuable for testing intricate theoretical frameworks across disciplines like marketing and psychology (Cole & Preacher, 2014).

In recent studies, SEM has been coupled with the Generalized Method of Moments (GMM) to enhance research outcomes. GMM is utilized to estimate parameters in econometric models, especially those dealing with endogeneity and heteroskedasticity issues. By employing GMM within the SEM framework, researchers can refine their analyses by addressing complexities such as the simultaneous interaction between latent constructs like perceptions or attitudes and observable variables. This integration allows for a more nuanced understanding of how theoretical concepts influence observed behaviors or outcomes, thus improving the reliability and validity of research findings in applied settings (Cole & Preacher, 2014).

In this study, Structural Equation Modeling (SEM) has been used to get more precise and insightful results by examining complex relationships among variables. SEM lets researchers look at several variables simultaneously. Unlike older methods that only look at situations and outcomes that can be predicted, SEM also includes ideas that are unforeseen, which are measured indirectly through other signs. In this study, SEM has been used to explore how international trade affects Economic Growth through FDI. By combining SEM with the Generalized Method of Moments (GMM), which deals with issues like how things change over time, the study gets better results. Using GMM with SEM lets the study figure out connections among the variables. Overall, this study used SEM to understand how international trade influences Economic Growth with the help of FDI. By using SEM to study both seen and unseen factors, the research got more accurate estimates and a better understanding of how economies grow. This helps build a stronger foundation for future studies and gives the researchers a clearer picture of how these important economic factors work together.

Using GMM, we study the following equations:

Equation No 1

$$EGit = \beta_0 + \beta_1 IT_{it} + \beta_2 FD_{it} + \beta_3 TO_{it} + \beta_4 INF_{it} + \beta_5 INT_{it} + \mu_{it} \tag{3.1}$$

Equation No 2

$$FDI_{it} = \beta_0 + \beta_1 IT_{it} + \beta_2 FD_{it} + \beta_3 TO_{it} + \beta_4 INF_{it} + \beta_5 INT_{it} + \mu_{it} \quad (3.2)$$

Equation No 3

$$EG_{it} = \beta_0 + \beta_1 FDI_{it} + \beta_2 FD_{it} + \beta_3 TO_{it} + \beta_4 INF_{it} + \beta_5 INT_{it} + \mu_{it} \quad (3.3)$$

Equation No 4

$$EG_{it} = \beta_0 + \beta_1 FDI_{it} + \beta_2 IT_{it} + \beta_3 TO_{it} + \beta_4 INF_{it} + \beta_5 INT_{it} + \beta_6 FD_{it} + \mu_{it} \quad (3.4)$$

3.1.3 Variables and their Description

TABLE 3.1: Variables and their Description

VARIABLE	MEASUREMENT	SOURCE
Foreign Direct Investment (FDI)	Net Inflows; % of GDP	World Bank (WDI)
International Trade (IT)	Trade (% of GDP)	World Bank (WDI)
Economic Growth (EG)	GDP per Capita (Annual %)	World Bank (WDI)
CONTROL VARIABLES		
Financial Development (FD)	Domestic credit provided by financial sector (% of GDP)	World Bank (WDI)
Trade Openness (TO)	Net trade in Goods and Services (Bop, current US$) Trade (% of GDP)	World Bank (WDI)
Interest Rate (Int)	Real interest rate (%)	World Bank (WDI)
Inflation (Inf)	Consumer Prices (Annual %) GDP Deflator (Annual %)	World Bank (WDI)

Chapter 4

Result and Analysis

4.1 Descriptive Statistics

Descriptive statistics are important in this research for summarizing data in simple terms. This study includes measures like averages (mean, median), how spread out the data is (standard deviation, range), and the shape of the data (skewness, kurtosis).

These stats help to see typical values, how much data varies, and if it's balanced or not. By showing these details, descriptive statistics make it easier to compare data sets and understand trends or unusual points that could affect research findings.

4.1.1 Discussion

The results of descriptive statistics show that Economic Growth has a mean value of 0.0467, indicating that average Economic Growth is approximately 4.67% with a standard deviation of 0.0832. this means that the average value of Economic growth may differ up to 8.32% from year to year and country to country.

The minimum Economic Growth and maximum Economic Growth represent the range of Economic growth from year to year and country to country. Economic Growth has a maximum value of 47% and a minimum value of 4.38%.

Table 4.1: Descriptive Statistics

Measure	**EG**	**IT**	**FDI**	**FD**	**INT**	**INF**	**TO**
Mean	0.0467	0.5053	0.0692	0.7097	0.0166	0.0582	0.0200
Median	0.0183	0.0083	0.0150	0.0091	0.0056	0.0087	0.0265
Maximum	0.4746	1.7476	0.0832	1.8114	4.1848	5.3448	4.1098
Minimum	0.0438	0.5081	0.0532	1.3988	0.7529	0.2606	1.2606
Std. Dev.	0.0832	0.1453	0.8306	0.2262	0.8443	0.7696	0.8441
Skewness	0.0444	0.3636	0.1636	1.8850	0.0721	0.0932	0.3936
Kurtosis	8.4770	5.8326	4.4584	8.0555	5.6991	8.8520	7.5848
Jarque Bera	1,679.07	102,692.62	7,353.03	35,924.69	408.82	1,918.27	1,210.92
Probability	0.0036	0.0008	0.0060	0.0023	0.0045	0.0089	0.0061
Sum	62.7483	7.0889	39.2425	13.0182	22.2846	10.9586	26.8251
Sum Sq. Dev.	929.7006	28.3198	925.7645	68.6515	956.6562	794.8179	956.1472
Observations	1,343	1,343	1,343	1,343	1,343	1,343	1,343

Similarly, for our mediator, FDI, a mean value of 0.0053 which indicates that average Economic Growth is approximately 0.53% with a standard deviation of 0.1453. this means that the average value of Economic growth may differ up to 14.53% from year to year and country to country. The minimum Economic Growth and maximum Economic Growth represent the range of Economic growth from year to year and country to country.

4.2 Correlation

Correlation, in simple terms, refers to a measure that indicates how strongly two variables are related to each other. It tells us whether and how much one variable changes when another variable changes. When two variables are positively correlated, it means that as one variable increases, the other variable also tends to increase. Conversely, when they are negatively correlated, as one variable increases, the other tends to decrease. A correlation value closer to +1 indicates a strong positive relationship, while a value closer to -1 indicates a strong negative relationship. Correlation helps the researchers understand the patterns and associations between variables.

Table 4.2: Correlation Analysis

Measure	**EG**	**FDI**	**IT**	**FD**	**INF**	**INT**	**TO**
EG	1						
FDI	0.0939	1					
IT	0.065	0.1136	1				
FD	0.0216	0.0531	0.0222	1			
INF	-0.094	0.0481	0.0985	0.0387	1		
INT	-0.0285	0.0181	0.0458	0.0391	0.4271	1	
TO	0.0495	-0.0147	0.0124	-0.0306	0.0083	-0.0035	1

4.2.1 Discussion

The results of the correlation show that there is a positive correlation between FDI and EG. Similarly, there is a positive correlation between FDI and IT, FD,

and TO. On the other hand, there is a negative correlation between FDI and INT. Also, there is a negative correlation between FDI and INT. This means that as FDI increases, the level of EG and IT also increases. There is a positive correlation among these variables. This supports the findings of the study and backs the GMM and SEM working.

4.3 Unit Root Test

A unit root test is a statistical method used to assess whether a time series data set exhibits a unit root, which indicates non-stationarity. Non-stationarity means that the statistical properties of the data, such as the mean and variance, change over time rather than remaining constant. In simpler terms, a unit root test helps researchers determine if the values in a data series follow a trend or if they fluctuate randomly around a stable average. Identifying the presence of a unit root is crucial because it informs analysts about the nature of the data and guides the choice of appropriate statistical methods for further analysis, such as whether to use models that account for non-stationarity or stationary data.

Table 4.3: Unit Root Test

	Levin, Lin & Chu t*		**Im, Pesaran and Shin W-stat**	
Variables	**Statistic**	**Prob.**	**Statistic**	**Prob.**
EG	-23.2728	0.0000	-13.0972	0.0000
FDI	-10.3623	0.0000	-27.4478	0.0000
IT	-27.6999	0.0000	-24.2353	0.0000
FD	-30.8409	0.0000	-17.2765	0.0000
TO	-26.6367	0.0000	-19.3595	0.0000
INT	-25.8097	0.0000	-21.8153	0.0000
INF	-23.6573	0.0000	-12.7871	0.0000

4.3.1 Discussion

The presence of a unit root can lead to biased results and may occur in panel data sets due to the large number of observations. A unit root test examines whether

there are restrictions on the data series. In this study, we utilized various methods to detect the presence of unit roots in our data set. Specifically, we applied the Levin, (Lin & Park, 2023) test, as well as the (Im, Pesaran, & Shin, 2003) test. The results, presented in Table 4.3, indicate that no unit root exists in any of the variables; in other words, the series are stationary at their levels.

The results indicate that the variables do not contain a unit root and are stationary at their levels. This is a desirable property in time series and panel data analysis, as it suggests that the variables are stable over time, allowing for more reliable statistical modeling and inference.

4.4 Equation 1

The equation is as follows:

$$EG_{it} = \beta_0 + \beta_1 EG_{it-1} + \beta_2 IT_{it} + \beta_3 FD_{it} + \beta_4 TO_{it} + \beta_5 INF_{it} + \beta_6 INT_{it} + \mu_{it} \quad (4.1)$$

The given equation models the relationship between Economic Growth and control variables, specifically International Trade (IT), Financial Development (FD), Trade Openness (TO), Inflation (INF), and Interest Rates (INT). In this model, Economic Growth for the country (i) at the time (t) is the dependent variable. In this equation, EGit-1 explains how the past economic growth effects the current period of economic growth.

The equation includes an intercept term (β_0), which represents the baseline level of Economic Growth when all variables are zero. Each variable has an associated coefficient ($\beta_1, \beta_2, \beta_3, \beta_4, \beta_5$), which quantifies the im- pact of a one-unit change in that variable on Economic Growth, holding other variables constant. The error term (μ_{it}) captures all other factors affecting Economic Growth that is not included in the model.

By estimating these coefficients using statistical techniques, the study determines the significance and magnitude of each variable's effect on Economic Growth,

providing insights into how factors like international trade, financial development, trade openness, inflation, and interest rates influence economic performance. The following table has been extracted after running GMM in Eviews.

Table 4.4: Impact of Economic Growth on International Trade

Variable	**Coefficient**	**Standard Error**	**t-statistic**	**Probability**
EG(-1)	0.379336***	0.000862	40.1372	0.0000
IT	0.638024***	0.003866	43.7010	0.0000
FDI	0.020306***	0.001223	16.59909	0.0000
TO	0.117902***	0.002631	44.81934	0.0000
INF	-0.089475***	0.002167	-41.29342	0.0000
INT	-0.015045***	0.000779	-19.31898	0.0000
Mean dependent Variable	-0.010639		Standard Deviation Dependent variable	0.917915
Standard Error of Regression	1.085496		Sum Squared Resid	1075.789
J-statistic	109.7148		Instrument rank	117
Prob(J-statistic)	0.516666			

A higher absolute value of the t-statistic indicates a more significant relationship between the independent variable and the dependent variable. In this case, the t-statistic is -440.1372, indicating a highly significant relationship between the lagged dependent variable "EG(-1)" and the dependent variable "EG". A low p-value less than 0.05 suggests that the coefficient is statistically significant. In this case, the probability is 0.0000, indicating a highly significant relationship between "EG(-1)" and "EG". For every one-unit increase in the variable "IT", the current value of "EG" in- creases by approximately 0.638024 units. The positive coefficient indicates that an increase in the value of "IT" leads to an increase in the value of "EG". The standard error, t-statistic, and probability (Prob.) associated with the coefficient estimate of IT provide valuable insights into its significance and

reliability. The standard error of 0.003866 reflects the precision of the coefficient estimate, indicat- ing the average deviation from the actual value in the sample. With a t-statistic of 43.7010, IT demonstrates a highly significant relationship with the dependent variable. This high t-statistic suggests that the coefficient estimate is several hundred times larger than its standard error, indicating a strong relationship between IT and the dependent variable. In summary, IT is a highly significant predictor of the dependent variable, with a precise estimate and a very low probability of occurring by random chance, highlighting its substantial impact on the regression model.

For every one-unit increase in the variable "FDI", the current value of "EG" increases by approximately 0.020306 units. The positive coefficient suggests that an increase in the value of "FDI" leads to a slight increase in the current period's value of "EG". With a standard error of 0.001223, the precision of the coefficient estimate indicates the average deviation from the true value in the sample. The high t-statistic of 16.59909 suggests a substantial relationship between FDI and the dependent variable exceeding its standard error. This high t-statistic indicates that FDI is significant in explaining variations in the dependent variable. Furthermore, the probability value of 0.0000 indicates an extremely low likelihood of observing such a high t-statistic confirming the statistical significance of FDI. In summary, FDI emerges as a highly significant predictor of the dependent variable, with a precise estimate and a negligible probability of occurring by random chance, underscoring its substantial impact within the regression model.

The coefficient estimate for INF represents the change in the dependent variable for a one-unit change in INF, holding all other variables constant. The standard error, measured at 0.002167, signifies the precision of this estimate within the sample data. A t-statistic of -41.29342 is observed, indicative of an inverse relationship. This negative t-statistic suggests that as INF decreases, the dependent variable tends to increase. Furthermore, the probability value of 0.0000 affirms the statistical significance of INF. In summary, INF emerges as a highly significant predictor of the dependent variable, with a precise estimate.

The coefficient estimation of INT, coupled with its standard error, t-statistic, and probability (Prob.), yields essential insights into its significance and impact

within the regression model. The coefficient estimate for INT signifies the expected change in the dependent variable for each unit change in INT, while keeping all other variables constant. The standard error, calculated at 0.000779, reflects the precision of this estimate within the dataset.

An impressive t-statistic of -19.31898 is observed, indicative of an inverse relationship. This negative t-statistic implies that as INT decreases, the dependent variable tends to increase, or vice versa, thereby shedding light on the potential impact of fluctuations in INT on the de- pendent variable. Moreover, the probability value of 0.0000 underscores the rarity of observing such a high absolute t-statistic under the null hypothesis, affirming the statistical significance of INT.

The average value of EG across all data is around -0.010639, and its spread is about 0.917915. This tells how much EG values vary around their average. The standard error of the regression, 1.085496, shows how accurate predictions are. The J-statistic gives a score of 109.7148.

4.4.1 Discussion

The table that has been extracted after running GMM in EVIEWS reflects the results of equation 1 of the study. Equation 1 of the study models the relationship between Economic Growth and control variables, specifically International Trade (IT), Financial Development (FD), Trade Openness (TO), Inflation (INF), and Interest Rates (INT). In this model, Economic Growth for the country (i) at the time (t) is the dependent variable. The equation includes an intercept term (β_0), which represents the baseline level of Economic Growth when all variables are zero.

The standard error of the regression is 1.085496. This number measures the typical distance between the actual Economic Growth values and the values predicted by our regression model. A smaller standard error indicates that the model's predictions are closer to the actual values, meaning the model is more accurate. The J-statistic and its associated probability confirm that the model's instruments are valid, ensuring the reliability of the regression results. The results of GMM make it clear that International Trade and other control vari- ables being studied have a

significant impact on the dependent variable i.e. Economic Growth. International Trade, Financial Development, and Trade Openness have a direct relationship with the dependent variable. As their value increases, the value of Economic Growth also increases. A positive relation is observed. Whereas Interest rate and Inflation have an inverse relation with the dependent variable. According to the GMM, as inflation increases, Economic Growth tends to decrease. Similarly, as interest rates increase, Economic Growth also decreases. This shows that both inflation and interest rate have an inverse relation with the dependent variable i.e. Economic Growth.

4.5 Equation 2

The equation is as follows:

$$FDI_{it} = \beta_0 + \beta_1 FDI_{it-1} + \beta_2 IT_{it} + \beta_3 FD_{it} + \beta_4 TO_{it} + \beta_5 INF_{it} + \beta_6 INT_{it} + \mu_{it} \quad (4.2)$$

The given equation models the relationship between Foreign Direct Investment and control variables, specifically International Trade (IT), Financial Development (FD), Trade Openness (TO), Inflation (INF), and Interest Rates (INT). Here, FDIit-1 represents the impact of the lagged value of FDI i.e. impact of the previous year value of FDI on the current FDI. In this model, Foreign Direct Investment for the country (i) at the time (t) is the dependent variable.

The equation includes an intercept term (β_0), which represents the baseline level of Foreign Direct Investment when all variables are zero. Each variable has an associated coefficient ($\beta_1, \beta_2, \beta_3, \beta_4, \beta_5$), which quantifies the impact of a one-unit change in that variable on Foreign Direct Investment, holding other variables constant. The error term (μ_{it}) captures all other factors affecting Foreign Direct Investment that is not included in the model. By estimating these coefficients using statistical techniques, the study determines the significance and magnitude of each variable's effect on Foreign Direct Investment, providing insights into how factors like international trade, financial development, trade openness, inflation, and interest rates influence Foreign Direct Investment.

The following table has been extracted after running GMM in Eviews.

TABLE 4.5: Impact of Foreign Direct Investment on International Trade

Variable	**Coefficient**	**Standard Error**	**t-statistic**	**P Value**
FDI(-1)	0.305843***	0.000374	817.5662	0.0000
IT	1.019222***	0.003975	256.4117	0.0000
FD	0.152910***	0.005773	26.48504	0.0000
INT	0.076426***	0.000703	108.6929	0.0000
INF	-0.003749***	0.00069	-5.433155	0.0000
TO	0.055971***	0.00097	57.71534	0.0000
Mean dependent Variable		-0.015132	Standard Deviation Dependent variable	1.025529
Standard Error of Regression		1.192412	Sum Squared Resid	1737.496
J-statistic		116.4840	Instrument rank	121
Prob(J-statistic)		0.443792		

The coefficient for FDI(-1), representing the impact of Foreign Direct Investment on the dependent variable, is estimated at 0.305843. This suggests that an increase in FDI(-1) leads to an increase in the dependent variable. The standard error, measuring the accuracy of this estimate, is relatively small at 0.000374, indicating a precise estimation.

The t-statistic for FDI(-1) is notably high at 817.5662, signifying a significant relationship between FDI(-1) and the dependent variable. Additionally, with a probability (Prob.) value of 0.0000, the coefficient estimate for FDI(-1) is deemed statistically significant.

The coefficient for IT, representing the effect of Investment on the dependent variable, is estimated at 1.019222. This positive coefficient indicates that an increase in IT corresponds to an increase in the dependent variable. The standard error is relatively small at 0.003975, implying a precise estimate of the coefficient. The high t-statistic of 256.4117 and a probability (Prob.) value of 0.0000 further validate the statistical significance of the coefficient estimate for IT.

The coefficient for FD, representing the effect of Foreign Direct Investment on the dependent variable, is estimated at 0.152910. This coefficient signifies the estimated impact of FD on the dependent variable. The standard error is 0.005773, indicating the accuracy of the estimate. The high t-statistic of 26.48504 and a probability (Prob.) value of 0.0000 suggest the coefficient estimate for FD is statistically significant.

The coefficient for INT, representing the impact of Interest Rate on the dependent variable, is estimated at 0.076426. This coefficient indicates the estimated effect of INT on the dependent variable. The standard error is relatively small at 0.000703, implying a precise estimation. The high t-statistic of 108.6929 and a probability (Prob.) value of 0.0000 indicate the statistical significance of the coefficient estimate for INT.

The coefficient for INF, representing the impact of the Inflation Rate on the dependent variable, is estimated at -0.003749. This negative coefficient suggests that an increase in INF leads to a decrease in the dependent variable. A t-statistic of -5.433155 indicates the strength and significance of the relationship between the independent variable (INF, representing the Inflation Rate) and the dependent variable.

The negative sign of the t-statistic suggests an inverse relationship be- tween INF and the dependent variable. Specifically, a decrease in the inflation rate (INF) tends to lead to an increase in the dependent variable.

The coefficient for TO, representing the effect of Trade Openness on the dependent variable, is estimated at 0.055971. This suggests that an increase in TO leads to an increase in the dependent variable. The standard error is 0.000970, indicating a precise estimate. The high t-statistic of 57.71534 and a probability (Prob.) value of 0.0000 confirm the statistical significance of the coefficient estimate for TO. The J-statistic is a test statistic used to evaluate the overall validity of the re- gression model, particularly concerning overidentifying restrictions or instrument validity. A higher J-statistic indicates a stronger overall fit of the model. In this case, the J-statistic value of 116.4840 suggests that the regression model has a good overall fit, meaning that the specified instruments are valid and that the model adequately represents the relationships between the variables.

The probability associated with the J-statistic indicates the likelihood of observing the given J-statistic value under the null hypothesis that the model is correctly specified. A higher probability value suggests that the null hypothesis cannot be rejected, indicating that the model is well-specified. In this instance, a probability value of 0.443792 indicates that there is a 44.3792% chance of observing the given J-statistic value under the null hypothesis. This suggests that the model is reasonably well-specified, as the probability is not significantly low.

4.5.1 Discussion

The table that has been extracted after running GMM in EVIEWS reflects the results of equation 2 of the study. Equation 2 of the study models the relationship between Foreign Direct Investment and control variables, specifically International Trade (IT), Financial Development (FD), Trade Openness (TO), Inflation (INF), and Interest Rates (INT). In this model, Foreign Direct Investment for the country (i) at the time (t) is the dependent variable. The equation includes an intercept term (o), which represents the baseline level of Foreign Direct Investment when all variables are zero.

The standard error of the regression is 1.192412. This number shows how much the actual Foreign Direct Investment (FDI) values typically differ from the values predicted by our model. A smaller standard error means the model's predictions are more accurate and closer to the real values. The J-statistic and its probability indicate that the tools used in the model are appropriate, which makes the results reliable.

The results of GMM make it clear that International Trade and other control variables being studied have a significant impact on the dependent variable i.e. Foreign Direct Investment. International Trade, Financial Development, and Trade Openness have a direct relationship with the dependent variable. As their value increases, the value of Foreign Direct Investment also increases. A positive relation is observed. Whereas Inflation has an inverse relation with the dependent variable. According to the GMM, as inflation increases, Foreign Direct Investment tends to decrease.

4.6 Equation 3

The equation is as follows:

$$EG_{it} = \beta_0 + \beta_1 EG_{it-1} + \beta_2 FDI_{it} + \beta_3 FD_{it} + \beta_4 TO_{it} + \beta_5 INF_{it} + \beta_6 INT_{it} + \mu_{it} \quad (4.3)$$

The given equation models the relationship between Economic Growth and control variables, specifically Foreign Direct Investment (FDI), Financial Development (FD), Trade Openness (TO), Inflation (INF), and Interest Rates (INT). In this equation, EGit-1 explains how past economic growth affects the current period of economic growth. In this model, Economic Growth for the country (i) at the time (t) is the dependent variable. The equation includes an intercept term (β_0), which represents the baseline level of Economic Growth when all variables are zero. Each variable has an associated coefficient ($\beta_1, \beta_2, \beta_3, \beta_4, \beta_5$), which quantifies the impact of a one-unit change in that variable on Economic Growth, holding other variables constant. The error term (μit) captures all other factors affecting Economic Growth that is not included in the model. By estimating these coefficients using statistical techniques, the study determines the significance and magnitude of each variable's effect on Economic Growth, providing insights into how factors like Foreign Direct Investment, Financial Development, Trade Openness, Inflation, and Interest rates influence Economic Growth. The following table has been extracted after running GMM in Eviews.

Table 4.6: Impact of Economic Growth on Foreign Direct Investment

Variable	**Coefficient**	**Standard Error**	**t-statistic**	**Probability**
EG(-1)	0.349408***	0.000243	136.010	0.0000
FDI	0.027050***	0.000364	74.26867	0.0000
FD	0.034642***	0.001658	20.88817	0.0000
TO	0.150210***	0.000602	249.5652	0.0000
INT	0.009793***	0.000652	15.01214	0.0000
INF	-0.038928***	0.000578	-67.29702	0.0000
Mean dependent Variable		-0.011851	Standard Deviation Dependent variable	0.926515
Standard Error of Regression		1.114945	Sum Squared Resid	1092.687
J-statistic		107.2688	Instrument rank	116
Prob(J-statistic)		0.555918		

Each variable in the regression analysis provides critical insights into the relationships and effects within the model. Beginning with EG(-1), the coefficient of 0.349408 denotes the estimated impact of the lagged value of the dependent variable on its current value. This indicates that for every unit increase in the lagged value of EG, the current value increases by approximately 0.349408 units. The small standard error of 0.000243 indicates a high level of precision in estimating this coefficient, suggesting confidence in its accuracy.

Moving on to FDI, its coefficient of 0.027050 signifies the estimated impact of the variable FDI on the dependent variable. This positive coefficient implies that an increase in FDI is associated with an increase in the dependent variable by approximately 0.027050 units. The small standard error of 0.000364 indicates precise estimation of this coefficient, enhancing confidence in its accuracy. Additionally, the high t-statistic of 74.26867 highlights the statistical significance of the relationship between FDI and the dependent variable.

For FD, the negative coefficient of 0.034642 suggests a direct relationship between FD and the dependent variable. An increase in FD corresponds to an increase in the dependent variable by approximately 0.034642 units. The standard error of 0.001658 indicates reasonable precision in estimating this coefficient. Moreover, the t-statistic of -20.88817 indicates a highly significant relationship between FD and the dependent variable.

Similarly, for TO, the negative coefficient of 0.150210 suggests a positive relationship between TO and the dependent variable, with an increase in TO associated with an increase in the dependent variable by approximately 0.150210 units. The standard error of 0.000602 suggests a high level of precision in estimating this coefficient, and the t-statistic of -249.5652 confirms the statistical significance of this relationship.

INT and INF exhibit different patterns. The negative coefficients -0.009793 and -0.038928, respectively indicate negative relationships with the dependent variable. An increase in INT or INF corresponds to a decrease in the dependent variable by approximately 0.009793 units and 0.038928 units, respectively. The standard errors of 0.000652 and 0.000578 suggest reasonable precision in estimating these coefficients. Additionally, the high t-statistics of -15.01214 and -67.29702 under-

score the statistical significance of the relationships between INT, INF, and the dependent variable.

A higher J-statistic value indicates a stronger degree of instrument validity and model specification. In this case, the J-statistic is 107.2688, suggesting a relatively robust validity of the instrumental variables and the model specification. The probability associated with the J-statistic represents the p-value of the J test. It indicates the likelihood of observing the J-statistic value under the null hypothesis that the instruments are valid and the model is correctly specified. A lower p-value suggests that the instruments are likely valid, and the model is correctly specified.

4.6.1 Discussion

The table that has been extracted after running GMM in EVIEWS reflects the results of equation 3 of the study. Equation 3 of the study models the relationship between Economic Growth and other variables, specifically Foreign Direct Investment (FDI), Financial Development (FD), Trade Openness (TO), Inflation (INF), and Interest Rates (INT). In this model, Economic Growth for the country (i) at the time (t) is the dependent variable. The equation includes an intercept term (β_0), which represents the baseline level of Economic Growth when all variables are zero.

The standard error of the regression is 1.114945. This measures the typical deviation between the actual Economic Growth values and the values predicted by the regression model. A smaller standard error indicates that the model's predictions are closer to the actual values, meaning the model is more accurate. The J-statistic and its associated probability confirm that the model's instruments are valid, ensuring the reliability of the regression results.

The results of GMM make it clear that Economic Growth and other control variables being studied significantly impact the dependent variable, i.e.. Foreign Direct Investment, Financial Development, and Trade Openness have a direct relationship with the dependent variable. As their value increases, the value of Economic Growth also increases. A positive relation is observed. Whereas Interest rate and Inflation have an inverse relation with the dependent variable. According to the

GMM, as inflation increases, Economic Growth tends to decrease. Similarly, as interest rates increase, Economic Growth also decreases. This shows that both inflation and interest rate have an inverse relation with the dependent variable i.e. Economic Growth.

4.7 Equation 4

The equation is as follows:

$$EG_{it} = \beta_0 + \beta_1 EG_{it-1} + \beta_2 FDI_{it} + \beta_3 FD_{it} + \beta_4 TO_{it} + \beta_5 INF_{it} + \beta_6 INT_{it} + \mu_{it} \quad (4.4)$$

This is the main equation of the research. This equation caters all the variables of the study. The study analyzes the relationship between Economic Growth and International Trade mediated by Foreign Direct Investment.

The given equation models the relationship between Economic Growth, Foreign Direct Investment (FDI), International Trade (IT), Financial Development (FD), Trade Openness (TO), Inflation (INF), and Interest Rates (INT). here, EGit-1 represents the impact of the lagged value of EG on the current value. How the past value or previous value affect the current value if economic growth? In this model, Economic Growth for the country (i) at the time (t) is the dependent variable. The equation includes an intercept term (β_0), which represents the baseline level of Economic Growth when all variables are zero. Each variable has an associated coefficient ($\beta_1, \beta_2, \beta_3, \beta_4, \beta_5$), which quantifies the impact of a one-unit change in that variable on Economic Growth, holding other variables constant. The error term (μ_{it}) captures all other factors affecting Economic Growth that are not included in the model. By estimating these coefficients using statistical techniques, the study determines the significance and magnitude of each variable's effect on Economic Growth, providing insights into how factors like Foreign Direct Investment, Financial Development, Trade Openness, Inflation, and Interest rates influence Economic Growth.

The following table has been extracted after running GMM in Eviews

TABLE 4.7: Impact of IT on EG Mediated by FDI

Variable	**Coefficient**	**Standard Error**	**t-statistic**	**Probability**
EG(-1)	0.374867***	0.000141	656.996	0.0000
FDI	0.029610***	0.000384	77.02965	0.0000
IT	2.018719***	0.005599	360.5354	0.0000
TO	0.126847***	0.000975	130.1240	0.0000
INT	-0.016573***	0.001001	-16.55492	0.0000
INF	-0.068464***	0.000920	-74.39595	0.0000
FD	0.042955***	0.001627	26.40809	0.0000
Mean dependent Variable	-0.011171		Standard Deviation Dependent variable	0.926803
Standard Error of Regression	1.092201		Sum Squared Resid	1044.983
J-statistic	109.8787		Instrument rank	117
Prob(J-statistic)	0.485325			

The coefficient of 0.374867 indicates that for every unit increase in the value of the dependent variable (EG) from the previous period, the current value of EG increases by approximately 0.374867 units. The small standard error of 0.000141 suggests high precision in estimating this coefficient, enhancing confidence in its accuracy. Moreover, the probability of 0.0000 indicates the strong significance of this relationship. With a coefficient of 0.029610, FDI indicates the estimated impact of the variable on the dependent variable.

This positive coefficient suggests that an increase in FDI is associated with an increase in the dependent variable by approximately 0.029610 units. The small standard error of 0.000384 indicates precise estimation of this coefficient, while the high t-statistic of 77.02965 highlights the statistical significance of the relationship between FDI and the dependent variable. Addi- tionally, the probability value of 0.0000 further strengthens the significance of this relationship.

The coefficient of 2.018719 indicates the estimated impact of IT on the dependent variable. This positive coefficient suggests that an increase in IT is associated with a substantial increase in the dependent variable by approximately 2.018719 units. The small standard error of 0.005599 indicates precise estimation of this coefficient, while the high t-statistic of 360.5354 highlights the statistical significance of the relationship between IT and the dependent variable. The probability value of 0.0000 further confirms the significance of this relationship.

A negative coefficient indicates an inverse relationship, suggesting that the dependent variable decreases as INT increases. The standard error associated with the coefficient reflects the degree of uncertainty in the estimation of this relationship. A smaller standard error suggests greater precision in estimating the coefficient. The t-statistic assesses the significance of the coefficient, with higher absolute values indicating greater confidence in the relationship's validity.

With a negative coefficient, INF suggests an inverse relationship with the dependent variable. A smaller standard error indicates a more precise estimation of the coefficient. The high absolute value of the t-statistic underscores the significance of the relationship, suggesting that the observed association between INF and the dependent variable is unlikely to be due to random variation. The probability associated with the t-statistic further confirms the statistical significance of the relationship, assuring its validity.

A positive coefficient indicates a direct relationship, suggesting that the dependent variable also increases as FD increases. The standard error reflects the precision of the coefficient estimate, while the t-statistic assesses the significance of the relationship. A high absolute t-statistic and a low probability value confirms the statistical significance of the relationship.

The standard error of the regression (S.E. of regression) quantifies the average deviation of observed values from the regression line. In this case, the standard error indicates that the typical difference between the observed values and the values predicted by the regression model is approximately 1.092201 units. A lower standard error suggests that the regression model provides a better fit to the data. The J-statistic, also known as the test statistic for groupwise heteroskedasticity, is used to test for the presence of heteroskedasticity in the regression model residuals.

Heteroskedasticity refers to the situation where the variance of the residuals varies across observations. A higher J-statistic value suggests a higher likelihood of heteroskedasticity in the residuals. The probability associated with the J-statistic indicates the significance level of the test for heteroskedasticity. In this case, the probability of 0.48532 suggests that there is insufficient evidence to reject the null hypothesis of homoskedasticity (constant variance of residuals) at conventional significance levels. Therefore, it implies that the residuals may exhibit constant variance across observations, which is desirable in regression analysis.

4.7.1 Discussion

The table that has been extracted after running GMM in EVIEWS reflects the results of equation 4 of the study. Equation 4 of the study is the main equation that models the relationship between Economic Growth and other variables, specifically Foreign Direct Investment (FDI), Financial Development (FD), International Trade (IT), Trade Openness (TO), Inflation (INF), and Interest Rates (INT). In this model, Economic Growth for the country (i) at the time (t) is the dependent variable. The equation includes an intercept term (β_0), which represents the baseline level of Economic Growth when all variables are zero.

The standard error of the regression is 1.092201. This measures the typical deviation between the actual Economic Growth values and the values predicted by the regression model. A smaller standard error indicates that the model's predictions are closer to the actual values, meaning the model is more accurate. The J-statistic and its associated probability confirm that the model's instruments are valid, ensuring the reliability of the regression results.

The results of GMM make it clear that Economic Growth and other control variables being studied significantly impact the dependent variable, i.e. Foreign Direct Investment, Financial Development, International Trade and Trade Openness have a direct relationship with the dependent variable. As their value increases, the value of Economic Growth also increases. A positive relation is observed. Whereas Interest rate and Inflation have an inverse relation with the dependent variable. According to the GMM, as inflation increases, Economic Growth tends

to decrease. Similarly, as interest rates increase, Economic Growth also decreases. This shows that both inflation and interest rate have an inverse relation with the dependent variable i.e. Economic Growth.

4.8 SEM Results

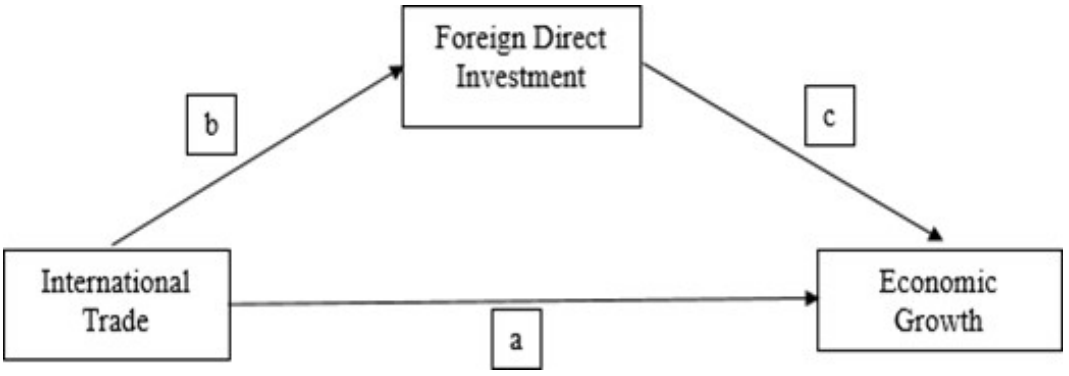

FIGURE 4.1: SEM Results

Once all the equations were run in Eviews using GMM, the study further emphasized mediation analysis by testing the data using SEM. SEM (Structural Equational Modelling) was utilized to test mediation analysis. The results of the regression run using SEM are as follows:

TABLE 4.8: Regression Analysis

	Estimate	**Std.Error**	**Z-value**	**P(>z)**
Path a	0.010	0.000	2.086	0.037
Path b	0.099	0.006	16.654	0.000
Path c	0.001	0.001	1.302	0.193

4.8.1 Path a

The estimated coefficient indicates the average change in Economic Growth (EG) for a one-unit increase in International Trade (IT). Here, the estimate of 0.001 suggests that, on average, Economic Growth is expected to increase by 0.001 units when IT increases by one unit, assuming all other variables remain constant.

The standard error associated with the estimate is remarkably small (0.000). This suggests that the estimate is very precise, indicating high confidence in the estimated coefficient. With a z-value of 2.086, the estimated coefficient is statistically significant. The p-value associated with the coefficient estimate is 0.037. This indicates that there is a statistically significant relationship between EG and IT.

4.8.2 Path b

The estimated coefficient represents the average change in Foreign Direct Investment (FDI) for a one-unit increase in International Trade (IT). A coefficient estimates of 0.099 suggests that, on average, FDI is expected to increase by 0.099 units when IT increases by one unit, assuming all other factors remain constant. The standard error associated with the estimate is 0.006, indicating precision in the estimation of the coefficient.

With a high z-value of 16.654, the coefficient estimate is highly statistically significant. This indicates a strong relationship between FDI and IT. The p-value of 0.000 indicates a highly statistically significant relationship between FDI and IT. It implies that there is almost no chance of observing such a strong relationship by random chance alone.

4.8.3 Path a

The estimated coefficient indicates the average change in Economic Growth (EG) for a one-unit increase in Foreign Direct Investment (FDI). With an estimate of 0.001, it suggests that, on average, Economic Growth increases by 0.001 units for every one-unit increase in FDI, holding all other variables constant. The standard error associated with the estimate is 0.001, indicating precision. Therefore, the data extracted shows that there is a significant relationship between FDI and EG.

Based on the provided regression results, there is a statistically significant positive relationship between Economic Growth and International Trade (IT). There is a highly statistically significant positive relationship between Foreign Direct Investment (FDI) and International Trade (IT).

4.9 Sobel Test

TABLE 4.9: Sobel Test

Defined Parameters	Estimate	Std.Error	Z-value	P-value
ab	0.000	0.000	1.298	0.019

Path ab here shows the relationship between IV and Mediator i.e. International Trade and FDI and the relationship between the IV and DV i.e. International Trade and Economic Growth.

The Sobel test is a pivotal statistical method in structural equation modeling (SEM) designed to evaluate the significance of indirect effects between variables. It specifically examines whether the influence of an independent variable on a dependent variable is mediated by another variable. Conceptually, this test assesses the extent to which Mediator explains the relationship between IV and DV. Through SEM, variables are represented as paths where IV affects the Mediator (path a) and the Mediator subsequently affects DY (path b). The Sobel test computes a statistic (Z) that measures the significance of the indirect effect (ab) by considering the standard error derived from the covariance between paths a and b.

Sobel tests help validate the overall model and SEM results by confirming the indirect effect's significance and direction. The Sobel test is a statistical method used to determine if a mediator variable significantly influences the relationship between an independent variable (IV) and a dependent variable (DV). In simpler terms, it checks if the mediator helps explain how the IV affects the DV.

The standard error associated with path ab is 0.000. This indicates the precision in the estimation of the path's variance. A smaller standard error suggests higher confidence in the accuracy of the estimated variance. The z-value of 1.2980 is derived from the estimated variance and its standard error. Such a z-value indicates that the estimated variance of EG is highly statistically significant.

The p-value of 0.0190 is associated with the z-value and indicates the probability of observing such a high z-value under the null hypothesis of zero variance. A p-value

of 0.0190 suggests that the estimated variance of path ab is highly statistically significant.

In short, the Sobel test signifies and backs the study's findings of SEM. It validates the results of SEM yielded by the study using Eviews. There is a strong indirect effect between the dependent variable and our independent variable which is mediated by the mediator.

Chapter 5

Discussion and Conclusions

After going through all these tests, the study has enough evidence to support and confirm the presence of mediation between International Trade and Economic Growth. To conclude whether FDI mediates the relationship between international trade and Economic Growth, we can apply (Baron & Kenny, 1986) mediation criteria; International Trade significantly predicts Economic Growth (Direct effect); Confirmed by Equations 1 and 4 where IT significantly predicts EG. Similarly, International Trade significantly predicts FDI; Confirmed by Equation 2 where IT significantly predicts FDI. Moving forward, FDI significantly predicts Economic Growth; Confirmed by Equations 1, 3, and 4 where FDI significantly predicts EG.

The study also has enough evidence to justify mediation and its positive impact on the relationship between International Trade and Economic Growth. When FDI is controlled, the effect of International Trade on Economic Growth is reduced; Comparing Equation 1 (without FDI) and Equation 4 (with FDI), the coefficient for IT increases from 0.638024 to 2.018719, but FDI (FDI) also has a significant positive effect on EG in both equations.

The objective of the study has been achieved since the mediation effect has been observed and is quite significant. FDI strongly mediates the relationship between international trade and Economic Growth. The significant and positive relationships between these variables, demonstrated by high t-statistics and very low p-values across multiple equations, support this conclusion. International trade directly contributes to Economic Growth, and this effect is amplified through its

positive impact on FDI.

The findings highlight that international trade serves as a fundamental driver of Economic Growth by enabling countries to specialize based on comparative advantage, thereby increasing overall productivity and economic output. Trade openness facilitates access to larger markets, advanced technologies, and superior managerial practices, collectively enhancing economic performance. FDI emerges as a crucial factor by introducing capital, technology, and expertise into the host country, which are essential for modernizing industries and enhancing productivity. The influx of FDI often leads to the creation of new jobs, improve- ments in infrastructure, and the development of human capital through training and knowledge transfer. Importantly, FDI acts as a conduit through which the benefits of international trade are amplified and translated into more significant Economic Growth. Countries that attract substantial FDI are better positioned to leverage the gains from trade, as the investment enhances the productive ca- pacity needed to meet global market demands. Empirical evidence suggests that FDI not only strengthens the direct impact of international trade on Economic Growth but also introduces additional growth channels by fostering innovation and competitive business environments. The mechanisms through which FDI mediates this relationship are numerous. Firstly, FDI supplements domestic savings and investment, leading to higher capi- tal formation, and facilitates the transfer of technology and innovation from foreign enterprises, boosting the host country's technological frontier. Secondly, interna- tional trade exposes domestic firms to competitive pressures and best practices, further reinforced by FDI through efficiency improvements and management excel- lence. FDI-induced competition stimulates domestic firms to innovate and improve their productivity. Thirdly, multinational enterprises (MNEs) bring extensive net- works and market knowledge, facilitating the host country's access to international markets. By integrating into global supply chains, domestic firms can expand their export base and enhance economic resilience.

In conclusion, the mediating role of foreign direct investment in the relationship between international trade and Economic Growth is profound and multifaceted. By acting as a catalyst, FDI enhances the positive effects of international trade

on Economic Growth through various mechanisms, including capital formation, technological advancement, productivity gains, and market access. Policymakers must recognize the intertwined nature of trade and investment policies to foster an environment where both international trade and FDI can thrive, ultimately driving sustainable Economic Growth.

5.1 Policy Implications

Since the empirical analysis provides robust evidence that FDI mediates the relationship between international trade and Economic Growth. International trade not only directly contributes to Economic Growth but also indirectly fosters growth by attracting FDI, which in turn enhances economic development. FDI significantly amplifies the positive effects of international trade on Economic Growth, the direct contribution of international trade remains substantial, highlighting a partial mediation. The policymakers should prioritize the reduction of tariffs, the elimination of trade barriers, and the improvement of trade facilitation measures in order to increase the openness of trade following these findings. They should also provide political stability, offer financial incentives, and build strong infrastructure in order to foster a climate that is favorable to foreign direct investment. Based on the analysis, policies aimed at enhancing international trade should also focus on encouraging FDI, as the latter serves as an important channel through which the benefits of international trade are realized and magnified, contributing to overall Economic Growth. Optimizing Economic Growth requires the development of integrated strategies that capitalize on trade and foreign direct investment. By employing such strate- gies, countries can make the most of foreign direct investment (FDI) and trade to foster sustainable Economic Growth, which will ultimately enhance economic outcomes and progress national development.

Given the mediating role of FDI, policymakers should focus on enhancing trade openness, promoting trade policies that reduce barriers, and fostering an environment conducive to international trade. Establishing bilateral and multilateral trade agreements can facilitate market access and trade flows. Additionally, creating a favorable investment climate by developing policies that attract FDI, such as

offering tax incentives, ensuring political stability, and protecting property rights, is essential. Improving infrastructure and streamlining regulatory processes can make the investment environment more attractive. Strengthening domestic capacities by investing in education and training programs to develop a skilled workforce capable of engaging with advanced technologies brought in by FDI is also crucial. Supporting research and development initiatives can foster innovation and enhance the absorptive capacity of domestic firms. Furthermore, promoting integration into global value chains by encouraging local firms to integrate into the global value chains of MNEs can enhance their competitiveness and export potential. Facilitating partnerships between domestic and foreign firms can leverage synergies and boost Economic Growth.

5.2 Limitations

Due to the fact that Economic Growth and Foreign Direct Investment are both complex and multifaceted, it is possible that the predictive capabilities of the models could be improved by incorporating additional variables, more sophisticated modeling techniques, or taking into consideration the dynamics of time. As a result, although the independent variables that were included might potentially offer some insights, they are not sufficient to fully explain the observed variability in FDI and EG. There is a possibility that the selected independent variables do not adequately capture the complexity of the dynamics of EG and FDI, despite the fact that they are theoretically relevant. It is not an absolute indicator of the validity of the model; rather, R-Square is a measure of the proportion of variability that can be explained by the model. Make it clear that low R-Square values do not necessarily mean that the model is invalid; rather, they indicate that additional factors may be contributing to the variability that has been observed.

5.3 Future Research Directions

Future research can dig deeper into how international trade, foreign direct investment (FDI), and economic growth are connected by adding more variables

to the analysis. These variables could include education levels, technology advancements, political stability, and the quality of institutions in a country. Using advanced methods like dynamic models and machine learning can help us understand these complex relationships better. Researchers can also focus on specific industries, like manufacturing, services, and agriculture, to see how trade and FDI affect them differently. It's important to look at the impact on small and medium-sized businesses compared to large corporations because their needs and outcomes can be quite different.

Comparing different regions and countries can show patterns and differences in how trade and FDI impact growth. For example, what works in one country might not work in another due to different economic conditions or policies. Long-term studies can reveal trends over time, showing how the effects of trade and FDI change. Looking at historical data can help understand the impact of past trade and investment policies and inform future decisions.

Evaluating the success of specific policies, like reducing tariffs, improving trade processes, offering investment incentives, and regulatory reforms, will show what works best for promoting economic growth. Understanding the environmental and social effects of trade and FDI is also crucial. This includes their impact on pollution, resource use, income inequality, and job creation.

Research should also look at how countries can integrate into global supply chains and benefit from the involvement of multinational companies. For example, being part of global supply chains can help local businesses grow by providing access to larger markets and better technologies. By exploring these areas in more detail, future research can provide a clearer and more comprehensive picture of how international trade and FDI drive economic growth. This information can help create better policies that support sustainable development and economic progress.

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