

IMPACT OF FINANCIAL DEVELOPMENT AND FOREIGN DIRECT INVESTMENT ON ECONOMIC GROWTH: AN INVESTIGATION THROUGH MULTI-MODELING APPROACH FOR DEVELOPING COUNTRIES



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DECLARATION

I, Saqib Mehmood, S/O Hamid Mehmood, a student of Ph.D. Business Administration, at Faculty of Business and Management Sciences, The Superior College, hereby declare that this thesis titled, "Impact of Financial Development and Foreign Direct Investment on Economic Growth: An Investigation through Multi-Modeling Approach for Developing Countries" is my own research work and has not been submitted, published, or printed elsewhere in Pakistan. Additionally, I will not use this thesis for obtaining any degree other than the one stated above.

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**CERTIFICATE OF APPROVAL**

This is to certify that the research work presented in this thesis, entitled "**Impact of Financial Development and Foreign Direct Investment on Economic Growth: An Investigation through Multi-Modeling Approach for Developing Countries,**" was conducted by Mr. Saqib Mehmood under the supervision of Dr. Ahmad Raza Bilal.

No part of this thesis has been submitted anywhere else for any other degree. This thesis is submitted to the Faculty of Business and Management Sciences, The Superior College, Lahore in partial fulfilment of the requirements for the degree of Doctor of Philosophy in field of Business Administration in Faculty of Business and Management Sciences at The Superior College, Lahore.

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**DEDICATION**

To my parents, **Engr. & Mrs. Hamid Mehmood**, for their unflagging and decorous support throughout my life.

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Saqib Mehmood

**LIST OF ABBREVIATIONS**

ADF	Augmented Dickey-Fuller
BRICS	Brazil, Russia, India, China, and South Africa.
CD	Cross-Sectional Dependence
DC	Developing Country
DCCE	Dynamic Panel Common Correlated Effects
DOLS	Dynamic Ordinary Least Square Method
ECM	Error Correction Model
FD	Financial Development
FDI	Foreign Direct Investment
FMOLS	Fully Modified Ordinary Least Square
GDP	Gross Domestic Production
GFDD	Global Financial Development Database
IFS	International Financial Statistics
NPL	Non-performing Loan
OECD	Organization for Economic Co-operation and Development
Panel ARDL	Panel Autoregressive Distributed Lag Approach
PMG	Pooled Mean Group
UN DESA	United Nations Department of Economic and Social Affairs.
UNCTAD	United Nations Conference on Trade and Development
WDI	World Development Indicators

**ABSTRACT**

After recurring financial crises that have infatuated developing and developed economies for the last couple of decades, policymakers, analysts, academics, and other stakeholders are concerned about the aptitude of the financial system to trigger economic growth. Since then, the researchers have been poised to re-examine the nature of such relationships in many other aspects concerning the growth and sustainability of the economies in short and long-term periods. The present study aims to empirically examine the impact of financial development and foreign direct investment on the economic growth of developing countries. However, this study utilized panel data on an annual basis of 16 selected developing countries from 1991 to 2017 gathered from World Development Indicators and International Financial Statistics relevant to the variables and proxies considered for the study. The present study is categorically divided into two themes based on the research gap i) financial development and economic growth nexus, and ii) financial development, foreign direct investment, and economic growth nexus.

The dynamic common correlated effects approach was applied as per the sensitivity of the data. The results of the theme I suggest that financial development is an important factor while addressing the economic growth in the selected developing countries. The findings of this study conclude the emergence of financial depth, access, efficiency, and stability in attaining economic growth in the developing countries individually and collectively. However, the robustness of the results has been checked through the fully modified ordinary least square and dynamic ordinary least square methods, which confirmed that financial development causes economic growth in the short and long run. The panel autoregressive distributed lag approach to cointegration was applied for theme II of the study. However, the results showed that FDI and financial development are the key contributors to economic growth in selected developing countries in the short and long run.

The study's quantitative results show the emergence of financial development and foreign direct investment in attaining economic growth in developing countries. This research is a panacea for developing countries and contributes to global literature on achieving economic growth. However, this study will help the practitioners, policymakers, and stakeholders to address economic growth concerning financial

development and foreign direct investment and formulate and enforce suitable policies and strategies regarding sustainable growth in developing countries.

**Key Words:** Dynamic Panel Common Correlated Effects (DCCE), Developing Countries, Economic Growth, Financial Development, Foreign Direct Investment.

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CHAPTER 1: INTRODUCTION

1.1. Introduction

This chapter deals with the context of the under consideration study. It provides a background and theme of research by considering the area and domain of financial development, foreign direct investment (FDI), and economic growth in developing countries. It provides an insight into the overall aims and objectives of research which depicts the contribution of research in the manner of theoretical and practical significance. It also highlights the context of developing countries that will be the basis for the analysis of this research. This chapter ends with the structure of the thesis along with its pattern.

1.2. Introduction and Background of the Study

In the twenty-first century, where the economies are competing for the competitive edges and for attaining economies of scale; financial development and foreign direct investment are of considerable importance and are attributed as the significant flag bearer of the growth options of the economies (Chaudhry et al., 2013; De-Silva, 2016; Ibrahim and Alagidede, 2018; Levine, 2005; Pradhan, Arvin, and Bahmani, 2018; Pagano, 1993; Rajan, 2006; Sehrawat and Giri, 2016). The different economies rely on their different competitive edges, and these edges may vary from economy to economy, but the financial competitiveness and inflows of investment are of significant importance (Al-Awad and Harb, 2005; Ehigiamusoe and Lean, 2019; Mahoney et al., 2001; Mehmood and Bilal, 2021; Wolde-Rufael, 2009).

Now the world has become a global village where economic well-being is one of the major concerns for the economies. Many of the researches depict the mixed characteristics of the factors that influence the economic growth of an economy. Still, some common elements have a significant impact on economic growth around the globe – better infrastructure, appropriate security conditions, and financial institutions' growth (Chaudhry et al., 2013; Pradhan, 2010; Wu, Hou, and Cheng, 2010).

The managerial expertise in the manner of financial development and in attracting the flows of foreign direct investment is the priority task of the economies to take the competitive edge over the rival economies (Asghar et al., 2019; Baltagi et al.,

2009; Bist, 2018; Chaudhry et al., 2013; Gabor and Brooks, 2017; Law et al., 2013; Lee and Chang, 2009; Shahbaz and Rahman, 2010; Sehwat and Giri, 2016). The finance growth nexus has been instigated by the study of Bagehot (1873), which systematically acquaints the financial system and its main areas. This study highlighted that the variation in the financial system of one economy concerning the other is due to the economies' efficient and well-designed credit systems. Financial factors were addressed very first time by Schumpeter (1911) in "*Theory of Economic Development*," which states that the financial aspects have a significant and considerable contribution to the economic growth and well-being of the economy. A well-designed financial structure may result in the appropriate allocation of funds and the stability of the concerned economies. However, this situation creates lucid and reasonable investment opportunities, resulting in better fund management and economic growth. Moreover, economic growth is sustainable in the case of financial innovation and economies of scale.

The operational capacity of the financial system is attaining significant attention from the stakeholders through their distinct direct and indirect impacts on the economy (Tadesse and Abafia, 2019; Sarma and Pais, 2011). The direct impacts are associated with monitoring the funds, the productivity of capital employed, and the volume of savings. Financial intermediation's impact is considered indirect, through which a connection between saver and borrower is generated (Mehmood and Bilal, 2021; Rousseau and Wachtel, 2011). The role of the financial system is highly volatile and leveraged concerning the economy because its different segments are associated with transaction management, fund management, and money, where any failure can disturb the economic stability and vice versa.

The study of Goldsmith (1969) demonstrates the planned version of the finance-growth nexus in the different decades concerning the different economies. This study has a phenomenological interpretation of the said issue. The results show that the countries' economic phases also contribute to the overall well-being and recession in an economy. By keeping in view the reflection of this study, there is a new pathway for the recent research to address the under consideration issue, and that may result in the best way of economic growth (Al-Awad and Harb, 2005; Azman-Saini and Smith,

2011; Ferreira and Matos, 2008; Hassan et al., 2011; Kurtishi-Kastrati, 2013; Rajan, 2006; Zouaoui et al., 2018).

Aligning with the study of Schumpeter (1911), King and Levine (1993) designed a model to evaluate the finance growth relationship. The concluding remarks of this model suggest that financial development is vigorously associated with economic development, which reflects the accumulation of capital and betterment in the economic sovereignty of the economy. According to the theoretical approach of Levine (1997), the finance-growth model has different logical areas, which start with the transactional cost of the financial deals, involvement of financial intermediaries, appropriate risk management, and adoption of new technology. The majority of the previous research's rationale was to address the specific economic and financial development factors in particular countries.

The emergence of banks and the banking sector is of considerable debate because they may interrogate the financial intermediation process and reform their role accordingly. However, the bank concentration specifically affects the financial transactions and their regulatory policies, and their specific procedural roles are the major predictors of financial intermediations. Moreover, the advancement and development in the recent financial system have associations with the banking sector liberalization and financial intermediation (Berger, Demirgüç-Kunt, Levine, and Haubrich, 2004). According to Baltagi (2009), financial openness significantly impacts financial development. Still, in the case of trade openness and through the involvement of capital account, it negatively impacts financial development.

In contrast, Bojanic's (2012) study shows that economic growth can be attained through appropriate trade openness and the appropriate institutional development. However, this study applied different econometric tools and concluded that economic development is achieved through the said option, proved through the cointegration analysis. The error correction model also confirms the authenticity of the results of this study. In today's era, every country is racing to achieve the desired target of FDI inflows due to its associated benefits that have favorable contingent impacts on the host and home country. Most importantly, its relative importance is dignified in developing countries (Flora and Agrawal, 2017; Kurtishi-Kastrati, 2013; Moosa and Cardak, 2006).

The association of FDI with growth options can directly link the dominance of across border transactions, healthy competition, dealing in foreign currency, technological and workforce transformation (Frenkel et al., 2004; Kurtishi-Kastrati, 2013; Loungani and Razin, 2001). FDI is regarded as a wheel to gear the economy in the desired cruise (Bayraktar, 2013; Blonigen, 2005; Borensztein et al., 1998; De-Mello, 1997; Görg and Greenaway, 2004; Gokmenoglu, Amin and Taspinar, 2015). FDI served as a channel to enter into the new markets, which boom the host countries and reflects the same motive for the home or investing countries. The general agenda behind the FDI is the promiscuous benefits for the host and home countries. The promulgation of FDI can be cited evidently in the early 20<sup>th</sup> century, where the basic functionality of the concerned matter could be stamped and initiated (Frenkel et al., 2004). The literature behind FDI is flagged with its causes, strategies, agenda points, and motivators. The matter of international capital flows involved in this situation, and the management of these cash/ capital flows are of significant debate (Asteriou et al., 2021; Badeeb and Lean, 2017; Frenkel et al., 2004; Iamsiraroj, 2016; Shahbaz et al., 2011; Shahbaz and Rahman, 2012).

The context of the present study is designed under two themes that were majorly focusing on the 1) financial development and economic growth nexus and 2) foreign direct investments, financial development, and economic growth nexus in the context of developing countries. The developing countries are struggling to get through their growth process, and the emergence of financial development and FDI is considered.

## 1.2.1. Overview of Economic Growth

Economic growth may have referred to as the steady process through which the economy's productive capacity will increase and cause a significant increase in national output and income (Kalai and Zghidi, 2019; Mahoney et al., 2001; Tiwari and Mutaseu, 2011). In order to determine the working orbit of economic growth, it is majorly categorized into two distinct forms; i) either the economy can either grow comprehensively by using more resources or ii) intensively by effectively utilizing the resources – economies of scale. However, this may include capital accumulation, technological innovation, etc. (Romer, 2006; Todaro and Smith, 2009).

Different researchers have their viewpoints, and their viable options for economic growth have different dimensions. Hence, all the varying trends and dimensions are discussed in different studies. The consensus about the considerable points in the existing literature is efficient financial markets, adequate skilled human resources, and equal investment opportunities (Almfraji and Almsafir, 2014; Belloumi, 2014; Blonigen, 2005; Carkovic and Levine, 2005; Iamsiraroj and Ulubasoglu, 2015; Kaur et al., 2013; Khalid and Marasco, 2019; Mahoney et al., 2001; Meyer and Sinani, 2009). However, economic growth is contingent on different factors attributed in the different studies for attaining economic growth in the short and long run. Moreover, different studies have concluding remarks on the economic growth concerning different dynamic areas of the individuals and the economies. However, economic growth is important for the stakeholders (Kumari and Sharma, 2017; Shahbaz et al., 2017b; Song et al., 2021; Zhao and Du, 2007). After recurring financial crises that have infatuated developing and developed economies for the last couple of decades, the researchers have been poised to re-examine the substantive aspects concerning the growth and sustainability of the economies in short and long-term periods. Specifically, the present study articulated financial development and FDI as the main ingredients for attaining economic growth in developing countries.

## 1.2.2. The Context of Financial Development

Financial development is viewed as the development of the financial sector of an economy. It is ascertained through how functional and operative the financial sector of an economy is and how it contributes toward economic stability, most specifically in the case of individuals' well-being. Financial development is also reliant on the apposite administration of savings, rate of savings, and investment management. The fractional change in the savings rates may result in a shift in overall investment circumstances and the economy's financial well-being. However, financial development may result in economic growth, but there is a need to consider the market, credit management, and other relevant matters (Pagano, 1993).

According to Levine (2005), five major icons of the financial system play their role in getting economies of scale and smooth functioning. These icons are 1) significant information about the investment, 2) monitoring and evaluating the investment after its financing, 3) risk management practices in case of investment, 4)

significant utilization of resources, and 5) appropriate exchange of goods and services. The above-said situation involves the proper functionality of the financial market and financial intuitions. It also requires the prudent role of financial intermediaries for the considerable execution of the packages of the financial system. According to Ferguson (2017), the Cold War needs serious attention over the other wars – World War I and II. However, economic and financial benefits are the emerging areas in the case of the cold war. This study considers different philosophical assumptions and empirical and logical reasoning. It concludes that technology innovation to improve the working conditions, better transaction procedures, and favorable circumstances to improve globalization will result in a better financial system and cause economic growth at the bottom line.

The attributed stance related to financial development showed its positive impact on the economic growth of the economies and, most specifically, in developing economies (Blackburn et al., 2005; Mankiw, Romer, and Weil, 1992; Yang and Yi, 2008). The role of financial development in ramifying the development and growth option is evident from the theory of Schumpeter (1911). According to this theory, financial intervention and innovation are vital concerns in attaining the targeted economy's growth option. Strong theoretical support is available in the literature that really and significantly confirms the character of financial intermediation/development on the way to economic prosperity (Bencivenga and Smith, 1991; Deidda, 2006; Hamdi, 2015; Hassan et al., 2011; Jianwei, 2015; Miller, 1998; Murinde and Eng, 1994; Patrick, 1966; Shahbaz and Rahman, 2012; Thornton, 1996; Younsi and Nafla, 2017).

Financial development aligns with its different components – depth, access, efficiency, and stability – on a trend basis to cope with the world's financial system modernization. The financial system is up-grading in developing and developed economies. The new trends and financial transactions' anatomy can be cited worldwide. The concerns about financial management, financial stability, and other relevant areas gain much attention in managerial expertise and appropriate policy deployment (Khan and Senhadji, 2003; Ross, 1989; Sandleris, 2014; Söderlund and Tingvall, 2017).

World Bank's Global Financial Development Database (World Bank, 2013) explains that financial development relies on the predestined components causing the expedited demand for financial instruments, financial intermediation, efficiency, and stability. However, due to increased demand and the involvement of financial

institutions and financial development, information asymmetry may originate. This improved demand results in the influential lack of moral hazard (Ross, 1989).

The supply-leading hypothesis showed the theoretical and empirical linkages of financial intermediation/financial services to promote the growth of the concerned economy. This concept is the reverberation of financial stability-led economic growth. According to Patrick (1966), the financial services and financial intermediation cause economic progress because the stability and growth in the financial system can perform better in the stability of financial services, circulation of the fund, boost saving, domestic credit management, lending capacity building, and overall cash flow management results in the boost of economic activity and led it to the economic progress and prosperity.

The identification of causality between finance and growth was pinpointed by Patrick (1966), and through this identification, different modes of evaluation got their outbreak. The theoretical boundaries explain the logical interaction between the concerned and can be interpreted according to an economy's circumstance. The empirical coordination of financial development may spur economic prosperity. Still, after a particular stage, these phenomena may become passive because, after a certain level of development, the financial development may become dependent on economic growth, negating the supply leading and advocating the demand following hypothesis. The outbreak of economic growth is contingent on financial development at the early stages of development. Cash circulation on solid footing, savings mobilization, and appropriate financial intermediation can be the basic cause of growth in the concerned economies (Patrick, 1966). However, the certainty of conclusion – till now – depicts the diverse influence of finance and growth mutual interrelationship.

Several studies have been conducted to conclude the status of the finance growth relationship, and these researches conclude with the different options and circumstances. The consensus point is lacking in the majority of the investigations related to this core issue. The measurement criteria and proxies for measuring finance growth relationships vary in research. The researchers like Asghar et al. (2015); Cevik and Rahmati (2018), Deidda (2006), Law, Law, and Singh (2014), Levine (1997), Levine (2005), Lucas (1998), Mankiw et al. (1992), Miller (1998), Ndikumana (2000), Nyasha and Odhiambo (2018), Rajan, 2006; Saqib (2015) and Yang and Yi (2008)

concludes the variant results by utilizing different modes of measurement and estimation related to the finance growth relationship.

Finally, this research focuses on the connection between two important fields of finance: financial development and economic growth. Its purpose is to develop a structure for gauging the impact of financial development on economic growth in developing countries. The results of this study may help the developing economies to understand which factors are stimulating financial development and which ultimately lead toward the economic growth of an economy in general and in the case of developing economies for specific. However, as per the World Bank's GFDD, the context of financial development has its framework adopted by the current study. The framework of financial development has four major components, which ultimately depict financial development. These four components are 1) the depth of financial institutions, 2) the access of financial institutions, 3) the efficiency of financial institutions, and 4) the stability of financial institutions (World Bank, 2013).

## 1.2.2.1. Financial Depth

Financial depth may be referred to as the increased provision of financial services. The financial depth is concerned with the appropriate financial services and intermediation provided to the individuals or the groups (Chukwu and Agu, 2009; Rousseau and Wachtel, 2011; Türsoy and Faisal, 2018). The direct linkages of financial depth with economic growth can be cited in the literature, which ultimately brings positive change to individuals' and societies' economic situations (Arcand, Berkes and Panizza, 2015; Chukwu and Agu, 2009). Hoque and Yakob, 2017; Sehrawat and Giri, 2016; Swamy and Dharani, 2019). However, the macroeconomic effect of financial depth on a country is also stamped from a general perspective in different studies. Moreover, the financial depth typically increases the money supply in connection to GDP in the concerned economies (Arteta and Hale, 2008; Asghar and Hussain, 2014; Law and Singh, 2014; Shahbaz and Rahman, 2010). This results in a better liquidity position and hence can be helpful in investment management and to grab more opportunities (Kyophilavong et al., 2016; Mehmood and Bilal, 2021; Nwachukwu, 2017; Odhiambo, 2008b). The promotion of well-structured financial depth can manage the capacity shocks and macroeconomic situations and help to attain growth

(Nwachukwu, 2017; Nyasha and Odhiambo, 2018). The flow of funds is considerably related to the financial depth, where the circulation of credit is regarded as the deterministic portion of its success. How significantly the financial institutions make credit management is viewed as the measure of financial depth.

## 1.2.2.2. Financial Access

Access to finance may denote the availability of financial services to the users and provide awareness about it. With the advancement in technology and the high level of competition, every country and organization is racing to compete with its rivals accordingly. However, access to finance is one of the main competing points for the financial institutions individually and the economies collectively. It may have regarded the access of the financial products to individuals and businesses as per their needs and demand, which may consist of required banking transactions, disbursements, savings, and fund management prudently and sustainably (Arora, 2014; Moraes et al., 2021). Better financial services and their appropriate access plays a vital role in uplifting the economies (Ardic, Heimann, and Mylenko, 2011; Arora, 2014; Barra, Ruggiero, and Zotti, 2020; Ratnawati, 2020). Financial institutions are concerned about providing better financial access to their target population, resulting in investment management, the flow of funds, and a better financial system. Mainly, the gauging criteria for financial access are the number of bank accounts per 1,000 adults, the number of bank branches per 100,000 adults, the availability of ATMs<sup>1</sup>, and many other financial services availabilities (Ardic et al., 2011; Arora, 2014; Pearce, 2011; Shen et al., 2021).

Financial access facilitates individuals and businesses to manage their flow of funds through savings or to meet their short-term needs. The advancement in the financial system enabled their customers through distinguished services that raised their standard of living and made their fund management easy. In the global context of financial inclusion, achievement has been made with 1.2 billion adults – worldwide – having access to an account since 2011. 69% of the world's adults had an account. On the other hand, access to an account to its usage is a new horizon where 80% of the population has access to the account, which has been achieved by China, Thailand, Kenya, and India. The challenges still exist worldwide because one-third of the world

<sup>1</sup> Automated teller machine

population is still deprived of bank facilities. Different countries are working on this situation and have launched different financial inclusion models or strategies. The countries that have achieved some goals are Sub-Saharan Africa and India, where sufficient changes have enhanced financial inclusion. For instance, the India Aadhaar Account covered more than 1.2 billion of its population. In developing countries, more than 35% of adults receive government payments on their first account; African countries allow mobile accounts to thrive toward growth (World Bank, 2013).

### 1.2.2.3. Financial Efficiency

Financial efficiency may refer to providing appropriate financial services at the highest quality with the minimum cost. The literature is keen on how financial efficiency is concerned with economic growth (Ahad, Afza, and Shahbaz, 2017; Islam et al., 2018; Nafla, 2017). However, financial efficiency is slanted towards the efficiency of financial institutions that how efficiently and significantly these institutions are providing their financial services with maximum options (Assefa et al., 2017b; Blejer, 2006; Saqib, 2013). Financial efficiency helps in attaining economic growth through the appropriate fund management and allocation and investment management through the proper financial intermediation (Gabor and Brooks, 2017; Neanidis, 2019; Sánchez-Robles, 1997; Sehrawat and Giri, 2016). The developing and the developed economies are persistently attempting to stimulate economic activity by decreasing their domestic benchmark interest rates, particularly during the last decade. This will result in financial efficacy and the likelihood of fund management (Assefa et al., 2017b; Chinoda and Kwenda, 2019; Saqib, 2013). Financial institutions were offering different financial services, but their success is attributed to how efficiently they managed the cost-benefit connection related to these services. Financial efficiency is concerned with how well the investment in each alternative has been made to ensure the maximum return. Economies rely on a better financial system where the efficient financial system plays a significant role in better results. Despite the status of the economies being developing and developed, the efficiency of the financial system generates the fortunate flow of returns that may implicitly impact the growth of the financial sector in specific and the growth opportunities for the concerned economies in general.

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### 1.2.2.4. Financial Stability

Financial stability is a key concern in the growth of economies. Financial stability refers to the condition where the financial markets/ institutions work in a significant way to support economic growth through the proper intermediation of financial funds, risk management, and smooth function of the financial assets (Blejer, 2006; Ericsson and Irandoust, 2001; Jayakumar et al., 2018; Younsi and Nafla, 2019; Zhang, 2001a). An unstable financial system may result in a financial crisis. However, financial crises are destructive in nature while considering the growth options of an economy (Blejer, 2006; Ghassan, Boulanour and Hassan, 2021; Makki and Somwaru, 2004; Zang and Kim, 2007). If the financial institutions face low assets quality, this may adversely affect growth (Chinoda and Kwenda, 2019; Manu et al., 2011; Rioja and Valev, 2004). Financial stability is emerging in nature in the current financial and economic literature. Financial stability gained much attention during the international financial crises at the end of the 1990s. However, its emergence gets expedition by the financial and economic crisis that evolved in 2007. Moreover, the financial stability of the financial system is contingent on the different facts that the economies should focus on for the country's financial sector (Alfaro et al., 2010; Jayakumar et al., 2018; Manu et al., 2011; Ratnawati, 2020; Younsi and Nafla, 2019). A stable financial system helps the economies grow in a productive manner through which financial intermediaries, financial markets, and infrastructure help the individuals, investors, and the stakeholders by a smooth flow of funds in a trustful manner.

### 1.2.3. FDI and Economic Growth

As theme two of the under consideration study, this study focuses on foreign direct investment (FDI) led growth options. From the very beginning of the 21<sup>st</sup> century, the developing countries are taking much attraction around the globe in the manner of spillovers of FDI, hence can be the competitive edge of these countries. This competitive edge may base upon the opportunity of skilled and able labor, natural resource competitiveness, and the room to excel in the growth option. However, this will serve as a paradigm for the growth of the host and the home country (Blonigen, 2005; Chaudhry et al., 2013; Iamsiraroj, 2016).

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The FDI has a significant attraction for developing countries in attaining economic growth, stability, and sustainability (Sabir, Rafique, and Abbas, 2019; Omran and Bolbol, 2003; Nayak and Choudhury, 2014). FDI<sup>2</sup> in the case of developing countries causes different types of edges for the bailout process of the developing countries (Banday and Ismail, 2017; Economou et al., 2017; Jude and Leveuge, 2017; Khan et al., 2019; Kurtishi-Kastrati, 2013; Neanidis, 2019; Shahbaz et al., 2011; Tiwari and Mutascu, 2011; Ulubasoglu, 2015). On an individual level, capacity-building analysis of economies spurs different viewpoints about their lacking and competitive edges.

The different aspects of FDI are considerable and regarded as significant in contribution to the growth options. The difference in the viewpoints is hence creating ambiguity in the mindset of the policymakers either what they have to do in gaining the economies of scale as per this core issue (Aequah and Ibrahim, 2020; Chaudhry et al., 2013; Moosa and Cardak, 2006; Saini and Singhanian, 2018). The common theme in the mindset of the economies about FDI is that it may attract foreign investment inflows. These inflows can be utilized domestically and in the host country, resulting in better options for the host country, and ultimately, economic progress can be cited. This particular issue also endorsed the theoretical framework of the neoclassical theory of FDI, new opportunities, and a better standard of living (Levin, 2001).

FDI has emerged as a contemporary issue in the manner of the well-being of the economies. The desired and brighter aspect of FDI is stamped, but the challenge is therefore assisted by the bodies to make sure the attraction of it in their concerned country (Alvarado et al., 2017; Blomstrom et al., 1994; Inekwe, 2013; Jude and Leveuge, 2017; Lensink and Morrissey, 2006; Pegkas, 2015; Sadik and Bolbol, 2001; Zang and Kim, 2007). The theoretical, empirical, and scientific investigations are being made to conclude the issue as per consensus and per the capacity of generalizability (Borensztein et al., 1998; Shahbaz et al., 2011; Xie, 1994; Zghidi et al., 2016). This study aimed to conclude the various issues discussed in Theme I and II of the present study.

<sup>2</sup> On the global scenario the contribution of the stock of FDI has been increased from 22% to 35% (Ashraf, Yong, Afzal and Kun, 2019).

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The attribution of the private capital flows showed more than half of the association with FDI<sup>3</sup>. The critical and significant aspect relevant to the developing countries is they can be the source of more attraction as compared to the other countries due to their supportive business environment, working capacity, and relatively more options to grow (Ashraf, Yong, Afzal, and Kun, 2019; Olofin et al., 2019). But the variation in the findings retaliates the researchers to create some considerable growth or the road map to depict the circumstances of this varies issue. However, many of the researches showed the positive impact of FDI in connection to the growth by concerning the developing economies (De-Mello, 1997; Flora and Agrawal, 2017; Gui-Diby, 2014; Herrera-Echeverri, Haar and Estévez-Bretón, 2014; Khalid and Marasco, 2019; Shahbaz, Leitão and Malik, 2011) but still, there is a negation of the said scenario for the host countries or the countries which are the recipient of the inflows of the FDI (Ericsson and Irandoust, 2001) and even the literature is the witness of negative impacts as well for the under consideration issue (Görg and Greenaway, 2004).

It may be regarded as a Gordian knot to evaluate the common points among the economies that can be considered as a suggestion for those economies that are frazzled to find out the bailout process in the perplexing situation (Adams, 2009; Agbloyor et al., 2016; Belloumi, 2014; Carkovic and Levine, 2005; Meyer and Sinani, 2009; Tun et al., 2012; Neanidis, 2019; Yao, 2006). The dynamic environment of competition among economies creates negative and positive vibes to dominate from one economy to another. However, the under consideration study considers FDI as a source of attraction and will evaluate accordingly in developing countries.

### 1.2.4. Context of Developing Countries

In the current era of competitive advantage, the category of the country is of considerable importance, and hence the options of growth and other relevant aspects can be ascertained through the theoretical conceptualization behind the theme of an economy (Banday and Ismail, 2017; Blomstrom, Lipsey and Zejan, 1994; Botev, Égert and Jawadi, 2019; Prasad, Rogoff, Wei and Kose, 2005; Saqib, 2016). The hike in the nominal level of resources is contingent on the growth options. However, the considerable circumstances for the developing countries are of significant tax revenues

<sup>3</sup> IMF Balance of payments Statistics Year book (1998).

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over the last 15 years (UN-DESA, 2019). The source of attraction in developing countries is investment opportunities and well-deserved growth options (Al-Awad and Harb, 2005; Calderón and Liu, 2003; Majid and Mahrizal, 2007; Nair-Reichert and Weinhold, 2001). Developing economies have somehow attributes of developed countries but aren't regarded as developed (Cohen, 2006). The rationale behind the developing economies is that they can be developed in the near future. The prevailing circumstance relevant to the view of annual percentage change in growth in different categories is depicted in Table 1.1.

**Table 1.1: World output growth, 2009–2018\***

Year(s)	Country/ Economy		
	World	Developed Countries	Developing Countries
2009	-1.3	-3.4	3.1
2010	4.5	2.6	7.9
2011	3.3	1.6	6.2
2012	2.8	1.2	5.4
2013	2.7	1.3	5
2014	3	2	4.7
2015	3	2.4	4.3
2016	2.7	1.7	4.3
2017	3.3	2.5	4.6
2018	3.1	2.3	4.3

\* Figures depicts the annual percentage change

Source: UNCTAD (TDR 2019).

It can be observed that the growth options in the developing countries are comparatively high compared to the other group of economies UNCTAD (TDR 2019)<sup>4</sup>. The integration for the more robust view in attaining the growth option is also termed foreign direct investment. The inflows of these investments are equally considerable for every sought of the economy, and it is reported in many of the researches that these inflows have a significant and positive contribution to developing countries (Almfraji and Almsafir, 2014; Bandy and Ismail, 2017; Blonigen, 2005; Borensztein et al., 1998; Ferreira and Matos, 2008; Lucas, 1998; Loungani and Razin, 2001; Nkoa, 2018).

<sup>4</sup> United Nations Conference on Trade and Development (Trade and Development Report, 2019)

The incertitude about the growth process is attached to both the types of countries – developing and developed (Combes, Kinda, Ouedraogo, and Plane, 2019; Narayan and Narayan, 2013), but the appropriate and capacity to proceed in case of developing countries is more dominating as compared to the other type of countries (Batuo, Mlambo and Asongu, 2018; Cohen, 2006; Elkomy, Ingham, and Read, 2016; Habibullah and Eng, 2006; Saqib, 2013; Zouaoui et al., 2018). The developing countries are facing indelible challenges that are associated with the emergence of growth, sustainability, health, and population management, but it doesn't mean that these countries are incommensurable relative to the standards of the developed countries (Acquah and Ibrahim, 2020; Kandil, Mahalik and Nguyen, 2017; Mehic, Silajdzic, and Babic-Hodovic, 2013; Shahbaz, Saini and Singhania, 2018; Zhang, 2001b; Zhao and Du, 2007).

Since the rapid growth in globalization, which can be diligently cited from the 1970s, procedural changes such as financial development, capacity building, and investment inflow are significant areas for discussion. However, these types of procedures have become integral elements of the dealings in the operational system of an economy. Moreover, the cross-border transactions through globalization and integrated policies of the economy's strong financial system can be the defining criteria of the fate of an economy (Alfaro et al., 2004; Grassa and Gazdar, 2014; Hassan, Sanchez and Yu, 2011; Hoque and Yakob, 2017; Khan and Senhadji, 2003; Narayan and Narayan, 2013).

The diversity in the financial system and the appropriate circulation of funds can be served as a tool in conforming to a better financial system – financial development (Jones, 2007; Ross, 1989). Though the financial system and its development are the determinants in attaining economic growth but innovation through technological updation and betterment in policymaking were also effective approaches for this integrated system, implicitly for the developing countries (Habibullah and Eng, 2006; Nair-Reichert and Weinhold, 2001; Zouaoui, Maziou, and Ellouz, 2018). The prudent involvement of the financial sector is contingent on many factors that comparatively result in a better outcome. However, the differentiation originated based on managerial and administrative practices of every region, which is concerned with producing their best and focusing on economies of scale.

### 1.3. Problem Statement

Due to the huge competition, the survival of the economies is based on different attributes. Economic growth is a debated phenomenon in literature where the various attributes affect this issue. Still, the emergence of financial development and investment inflows in the case of foreign direct investment is regarded as the defining criteria for economic growth (Liu et al., 2020; Muhammad, Huynh, and Tram, 2019; Prasad et al., 2005; Shahbaz, 2012; Shahbaz, Rehman, and Muzaffar, 2015; Saqib, 2016; Shia, Shahbaz and Ozturk, 2017; Tun et al., 2012; Zhang, 2001a; Zhao and Du, 2007). The emergence of financial development and FDI can be cited in different studies, but there is a lack of consensus on the finding of various studies to conclude the economic growth (Alfaro et al., 2010; Chaudhry et al., 2013; Ericsson and Irandoust, 2001; Makki and Somwaru, 2004; Rioja and Valev, 2004; Shahbaz et al., 2011; Swamy and Dharan, 2019; Zang and Kim, 2007; Zhang, 2001a). However, different studies address the various components because the contributing factors have variations in different time frames, regions, and economies (Uddin et al., 2013; Waheed and Younus, 2010; Zang and Kim, 2007; Zhang and Naceur, 2019). World Bank's GFDD (World Bank, 2013) provides a framework concerning financial development, and this framework deals with financial depth, access, efficiency, and stability.

Different studies consider different components of the concerned framework. Specifically, these studies considered only financial development on general grounds (Asghar and Hussain, 2014; Assefa and Mollick, 2017a; Grassa and Gazdar, 2014; Khan and Senhadji, 2003; Shahbaz and Rahman, 2012) or discussed only one or two ingredients of the World Bank's GFDD (World Bank, 2013) framework for financial development (Blejer, 2006; Creel et al., 2015; Chukwu and Agu, 2009; Islam et al., 2018; Türsoy and Faisal, 2018). However, one comprehensive study is missed as per the researcher's point of view, which addresses the impact of financial depth, access, efficiency, and stability individually and collectively to attain economic growth in developing countries.

On a contrary note, the finance-led growth options – supply-leading hypothesis – and the growth-led finance options – demand-following hypothesis – are attaining much attention in the subject matter literature. This particular attention is important in developing countries because the circumstances of these countries are regarded as the

competitive edges for the concerned economies (Adeyeye et al., 2015; Ferguson, 2017; Ibrahim and Alagidede, 2018). Certain logical criteria and theoretical concepts reflect the relationship status of finance and growth nexus. These concepts are 1) supply leading hypothesis (Patrick, 1966; Schumpeter, 1911), which depicts the finance-led growth interrelationship, and 2) demand-following hypothesis (Patrick, 1966; Robinson, 1952), which states the growth led finance 3) bi-directional causality hypothesis (Blackburn and Hung, 1998) 4) is of no causality (Lucas, 1998). However, these concerns are attributed to the logical relationship between financial development<sup>5</sup> and economic growth, the literature witnesses variation in the impacts of the concerned subject matter. These variations are contingent upon the change in target population, subject matter, and measurements criteria (Cohen, 2006; Mehmood and Bilal, 2018; Muhammad, Huynh, and Tram, 2019; Zhang, 2001b). However, the present study also addresses the issue of causality in the finance-growth nexus in developing countries.

The developmental process is aligned with the business opportunities through great operational and technical expertise. However, attracting direct investment and maintaining financial stability are the key concerns for the economies. Moreover, the direct investment in the host country not only brings a fortunate flow of cash but also the transformation of technology, skill, and labor opportunities (Akbas, 2015; Ericsson and Irandoust, 2001; Inekwe, 2013; Jude and Leveuge, 2017; Khalid and Marasco, 2019; Kurtishi-Kastrati, 2013; Kyophilavong et al., 2016). The development in financial matters and their growth can be sublime in the way to the growth of an economy (Ouyang and Li, 2018; Prasad et al., 2005). Though the normative trends about the concerned matter are destined, the variation in ultimate results is also the beauty of operationalization and has different functionalities in different times and places.

Literature is full of different conclusions related to foreign direct investment's impact on attaining economic growth. However, some of these studies confirm its adverse effect in case of economic growth (Elkomy et al., 2016; Gui-Diby, 2014), some of these studies conclude the inconclusive results for economic growth (Alfaro et al.,

<sup>5</sup> "The policies, factors, and the institutions that lead to effective financial intermediation and effective financial markets, as well as deep and broad access to capital and financial services". World Economic Forum (2008).

2010; Ericsson and Irandoust, 2001; Zhang, 2001a) and some of these studies concludes its positive remarks in attaining economic growth (Chaudhry et al., 2013; Hagan and Amoah, 2019; Omran and Bolbol, 2003). However, the present study revisits the impact of FDI and financial development on attaining economic growth pertaining to the developing countries. This study wants to provide a comprehensive roadmap for the developing countries on economic growth by considering the ingredients enlightened by the present research.

Based on the earlier discussion, the study came up with the two themes addressed in this study. The theme I of under consideration study is mainly based on investigating the impact of financial development on economic growth in developing countries. The present study investigates the issues related to the theme-I are: 1) examination of the nexus between financial development and economic growth, 2) to test the impact of financial depth, financial access, financial efficiency, and financial stability on economic growth – individually and collectively – in the developing countries 3) to evaluate the long and short-run relationship between financial development and economic growth specifically in case of developing countries and 4) to test the existence of supply-leading and demand-following hypothesis in the developing countries.

The second theme of this study is based on the issue of foreign direct investment and economic growth nexus by keeping in view the context of developing countries. Foreign direct investment inflows are regarded as a major source of inflows of cash for the economies against the services or work rendered (Almfraji and Almsafir, 2014; Blonigen, 2005; Carkovic and Levine, 2005; Chaudhry et al., 2013; Ferreira and Matos, 2008; Grassa and Gazdar, 2014; Loungani and Razin, 2001; Wang, 2009). Economies are struggling to attain the concluding remarks about their economic growth. However, the under consideration study focuses on 1) to investigate the relationship between FDI, financial development, and economic growth in developing countries and 2) to test the long and short-run relationship between FDI, financial development, and economic growth in developing countries. Moreover, the economic growth in terms of FDI is a considerable point under theme II of the present study.

The actual problem focuses on the economic growth of the developing countries by considering financial development and foreign direct investment as the mainstream

areas in the present study. However, this intends to provide a comprehensive insight into the developing countries' rehabilitation process for their growth.

#### 1.4. Research Questions

The main and sub research questions of the thesis are as follows:

1. What is the impact of financial development on economic growth in developing countries?
  - a. What is the impact of financial depth on economic growth in developing countries?
  - b. What is the impact of financial access on economic growth in developing countries?
  - c. What is the impact of financial efficiency on economic growth in developing countries?
  - d. What is the impact of financial stability on economic growth in developing countries?
2. What is the impact of foreign direct investment on economic growth in developing countries?

#### 1.5. Research Objectives

Based on the earlier mentioned discussion in instruction and background of the study, it is evident that foreign direct investment and financial development are the two major areas on which developing countries may focus on economic development. However, the concern of this thesis is based on two different themes that are categorically summarized in the form of different research objectives.

The main and sub-objectives of the thesis are stated as follows:

1. To investigate the impact of financial development on economic growth in developing countries.
  - a. to test the impact of financial depth on economic growth in developing countries.

- b. To test the impact of financial access on economic growth in developing countries.
- c. To test the impact of financial efficiency on economic growth in developing countries.
- d. To test the impact of financial stability on economic growth in developing countries.
2. To investigate the impact of foreign direct investment on economic growth in developing countries.

#### 1.6. Research Gap and Significance of the Study

The present study addresses the issues of financial development and foreign direct investment in attracting economic growth in developing countries. The under consideration study has characterized by the research gap, theoretical and practical significance, which is depicted as follows:

##### 1.6.1. Research Gap

The present study reviewed the existing literature related to financial development, foreign direct investment, and economic growth. However, the lack of consensus in the concluding remarks of different studies is available in the literature. Most importantly, one comprehensive study is missed that addresses the World Bank's GFDD (World Bank, 2013) framework for financial development, which includes the four distinct components: financial depth, access, efficiency, and stability in addressing the issue of economic growth in the developing countries. The literature reflects a vast body of knowledge about the finance-growth nexus. However, different studies address the different components because the contributing factors have variations in different time frames, regions, and economies.

Specifically, these studies considered only financial development on general grounds (Assefa and Mollick, 2017a; Grassa and Gazdar, 2014; Khan and Senhadji, 2003; Shahbaz and Rahman, 2012) or discussed only one or two ingredients of the World Bank's GFDD (World Bank, 2013) framework for financial development (Blejer, 2006; Creel et al., 2015; Chukwu and Agu, 2009; Islam et al., 2018; Türsoy

and Faisal, 2018). However, one comprehensive study is missed as per the researcher's point of view, which addresses the impact of financial depth, access, efficiency, and stability individually and collectively to attain economic growth in developing countries. Literature is full of different conclusions related to foreign direct investment's impact on achieving economic growth. However, some of these studies confirm its adverse effect in case of economic growth (Elkomy et al., 2016; Gui-Diby, 2014), some of these studies conclude the inconclusive results for economic growth (Ericsson and Irandoust, 2001; Zhang, 2001a; Alfaro et al., 2010) and some of these studies conclude its positive remarks in attaining economic growth (Chaudhry et al., 2013; Hagan and Amoah, 2019; Omran and Bolbol, 2003). However, the present study revisits the impact of FDI and financial development on the economic growth of developing countries. The present study also found the methodological gaps in the under consideration themes of the study and considers dynamic modeling and robustness of the prevailing analysis to provide comprehensive concluding remarks.

However, the present study wants to provide a comprehensive road-map to the developing countries on the way to economic growth by considering the two main themes of the present study: 1) financial development and economic growth nexus, ii) FDI, financial development, and economic growth nexus in the developing countries.

##### 1.6.2. Theoretical Significance

Economic growth is viewed from different angles in the existing literature. However, the present study adds value to the existing literature through different distinctive points identified in the research gap.

Previous empirical studies considered economic growth categorically through the theoretical lens of financial development's general version (Mehmood and Bilal, 2018; Muyambiri and Odhiambo, 2018; Narayan and Narayan, 2013; Waheed and Younus, 2010). However, the present study has several distinguishing points which theoretically contribute to the existing literature. First, the previous studies didn't consider all components addressed in World Bank's GFDD (World Bank, 2013) framework for financial development, including financial depth, access, efficiency, and stability. The present study theoretically contributes by addressing all these components individually and collectively under one study to conclude the economic growth in

developing countries, which is missed according to the researcher's knowledge. However, it will be regarded as the real contribution of the present study.

Second, different studies evaluated the variables' individual effects concerning the finance-growth nexus (Grassa and Gazdar, 2014; Majid and Mahrizal, 2007; Söderlund and Tingvall, 2017; Vaona and Patuelli, 2008). However, the present research articulated different indexes by pooling different variables through the principal component analysis that best expresses the joint impacts on the predicted variables. This will provide in-depth insight to the readers to conclude the under consideration issue. Third, the study examines the supply-leading and demand-following hypothesis that depicts the finance-led growth and growth-led finance interrelationships, respectively. However, this issue addresses the direction of the causality of the finance-growth relationship, which will provide a shred of fresh evidence on the earlier stated issue.

Fourth, the present study revisits the FDI and financial development through multi-modeling to provide a comprehensive roadmap for the developing countries on economic growth. Fifth, the under consideration study adds value to the existing literature by addressing the financial development and foreign direct investment under one study to conclude the economic growth of the developing countries. This will contribute theoretically to how developing economies strengthen their financial system and attract foreign inflows to attain economic growth. Sixth, dynamic modeling is applied to conclude the themes of the present study. However, the robustness of the analysis will create its competitive methodological edge. Seventh, this study provides an extensive comparative analysis of the existing literature and theories on the subject under consideration. In the twenty-first century, where the countries compete for economic competitiveness, the present study postulates how the audience and authorities of developing countries focus on financial development and investment inflows. However, earlier described scenarios best differentiate the present study from the existing studies on the subject matter and create a theoretical context.

### 1.6.3. Practical Significance

Developing countries are struggling to reach a better standing in the overall world. The capacity to grow is considerable in the developing countries compared to

the rest of the countries because they can get economies of scale through resource management (Bittencourt, 2012; Hassan et al., 2011; Uddin, Shahbaz, Arouri and Teulon, 2014). However, this research will explore the finance-growth nexus with the financial development framework (World Bank, 2013) by considering the developing countries, adding value to the existing literature. However, this research will provide a more comprehensive understanding to the readers, policymakers, and practitioners because this study will address all the four components of the financial development framework (World Bank, 2013) in one study that was missed in the previous research as per researcher's point of view. This will provide insight to the readers on how the financial depth, access, efficiency, and stability impact the economic growth of developing countries individually and collectively. The present study revisits the FDI and financial development through multi-modeling to provide a comprehensive roadmap for the developing country's growth. However, the findings of this study will contribute to the knowledge and provide policy prescriptions that will serve as a tool for the developing countries to attain and sustain their economic growth implicitly. This research will help the policymakers, especially the Ministry of Finance, Ministry of Commerce and Trade, Ministry of Planning and Development, and respective State Banks of these developing countries, properly plan to transform themselves from developing to developed countries. This research will also help the practitioners to implement the implications/suggestions of this research to get better results than before on the way to economic growth.

### 1.7. Structure of the Thesis

The thesis is structured based on the following chapters, prepared by keeping in view the scope and nature of the research. However, the brief description and vision of the thesis are described below.

Chapter 1 is based on the overall introduction and rationale of the thesis. This chapter focuses on the pace of work exhibited in the later chapters. However, the background of the study, research questions, objectives of the research, the scope of research, and the research contribution are the integral elements of this chapter. However, these elements are presented by keeping in view the context of the study, which is under consideration.

Chapter 2 describes the relevant literature on finance growth nexus, and related areas have been studied relevant to Theme I. Different dimensions of financial development and their interrelationship with economic growth are discussed. Chapter 2 will also explain the financial depth, access, efficiency, and stability in representing financial development to attain economic growth. It will also highlight the existing studies on foreign direct investment and economic growth nexus. Different aspects of the said relationship are discussed in this chapter by keeping in view theme II of the under consideration study. The primary focus of this chapter is to determine the gap in research which can justify the present study. However, the existing literature and the body of knowledge have been reviewed in this study on the under consideration area of research by considering the theoretical and empirical linkages with the present study. Moreover, the methodological models in the existing literature are also studied in this chapter to justify the gap in the methodological manner of research. The research framework is also explained in this chapter to get a better insight into the working boundary of the current study.

Chapter 3 includes the method of doing research related to the present study. However, the research approach, research methodology, research paradigms, research philosophies, data, the time frame of data, sources of data collection, hypothesis development, model development, reasons for the model development, data analysis techniques, and reasons are mentioned and explained logically.

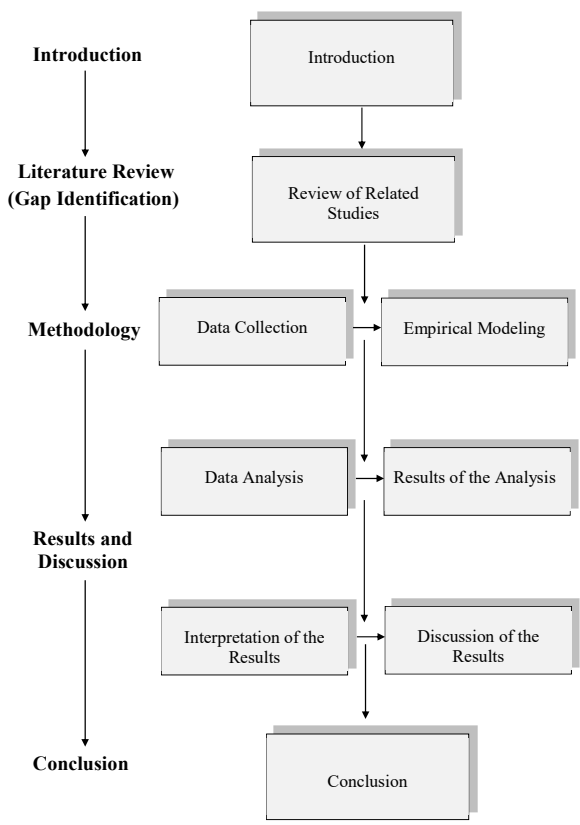
Chapter 4 aims to investigate the hypotheses that were presented in chapter 2. However, different statistical and econometric models and tools are used to justify and answer the research questions and to gain the study's objectives. This chapter also helps to attain the concluding remarks about the research because the findings and results will help to conclude the under consideration hypothesis and the objectives of the present study.

Chapter 5 has drawn a conclusion based on the results and discussion. However, this chapter concludes with a summary of major findings, the body of knowledge contributed through this study, and study implications. Research limitations and areas of further research are also presented in this chapter.

### 1.7.1. Summary

This chapter provides the overall face of the thesis. It will give an overview of financial development, economic growth, and related areas simply and lucidly. However, the research question, objectives, scope of research, and methodology used to conclude research have been studied. In the end, this chapter provides the theoretical and graphical structure of the thesis. The next chapter is related to reviewing relevant literature and theories related to the present research.

Figure 1.1: Structure of the Thesis  
Source: Compiled by Author



2.1. Introduction

This chapter is designed to review the studies relevant to the under consideration themes of the study. This chapter highlights different studies' viewpoints that the authors conduct at different time frames and with varying data sets. However, most of the researchers came up with different lines of bottom and empirical findings that have variations from the results of other related studies—the concluding remarks of this chapter vow to provide the gap for the under consideration study.

2.2. Overview of Financial Development and Economic Growth Nexus

Financial development and economic growth phenomena are of considerable debate, and researchers, academicians, and other consultants have been in this debate since the 19<sup>th</sup> century to conclude this varied issue (Asghar, Qureshi and Nadeem, 2015; Babatunde, 2011; Batuo et al., 2018; Bittencourt, 2012; Bist, 2018; Blackburn, Bose and Capasso, 2005; Chow, Vieito and Wong, 2019; Prasad et al., 2005). Many researchers have solid arguments for the finance-led growth connection, and their studies play the role of advocates of the under-consideration issue (Beck, Levine, and Loayza, 2000; Blackburn and Hung, 1998; Campbell and Hopenhayn, 2005; Habibullah and Eng, 2006; Kyophilavong et al., 2016; Levine, 2005; Muyambiri and Odhiambo, 2018; Pradhan, Arvin and Bahmani, 2018; Rioja and Valev, 2004; Zouaoui, Mazhoud, and Ellouz, 2018). Apart from the advocates of the under consideration stance, different studies reflect the crozier and vanishing connection of finance with growth (Deidda, 2006; Law and Singh, 2014). Some studies have a stance of no-causality from the under-consideration perspective (Zang and Kim, 2007).

However, the literature is a cubicle about the subject matter and needs to be studied logically to differentiate and conclude systematically. Different theories of financial development have been evolved over the period to target the subject matter to give an authentication stamp for spreading the growth option in the desired economy, i.e., Schumpeter's (1911) theory of financial development, theory of financial intermediation, and growth of Gurley and Shaw (1955), theories of demand following and supply leading of Patrick (1966) and McKinnon (1973) and Shaw (1973) theories

of economic growth, etc. The process of economic growth has been observed in the study of Patrick (1966) by keeping in view the conditions of the market and the involvement of financial institutions. According to the findings of this study, the financial institutions/ intermediaries should be established according to the financial assets and as per gross national production (GNP).

These theories are the flag bearer of their agenda points that have their dais of working capacity. These capacities have documented and procedural daintiness, which is accepted, challenged and rejected by many researchers (Bist, 2018; Blomstrom, Lipsey and Zejan, 1994; Fernández and Tamayo, 2017; Gabor and Brooks, 2017; Hung, 2003; Kaur, Yadav and Gautam, 2013; Sehrawat and Giri, 2016; Swamy and Dharani, 2019; Younsi and Nafla, 2017).

2.2.1. Selected Review of Literature

Greenwood and Jovanovic (1990) studied the interrelationship between financial intermediation and economic growth. The finding of this study includes the confirmation of the positive relationship between financial intermediation and economic growth due to the increase in the rate of return. However, the financial intermediation may vary from circumstance to circumstance and economy, and its effects showed variations in results accordingly.

Financial intermediation has been studied by Bencivenga and Smith (1991). This study focuses on how financial intermediation plays a vital role in financial development, leading to economic progress. However, the motives of financial development are the appropriate interference of the financial institutions to instigate the financial betterment in the economy, and the result of this economic development can be concluded at the bottom line.

The two-fold aspect of financial development was studied by Arestis and Demetriades (1997), which aimed to analyze empirically: I) the contribution of financial system/financial development on the growth of an economy and II) the impact of financial liberalization in attracting investment and economic well-being on an overall basis. After doing in-depth statistical and econometric analysis on the concomitant issue, the findings suggest that financial management, appropriate look after for financial intermediation, and stable financial policies may result in the

financial development of an economy. Resultantly, the opportunities for financial liberalization are cited to facilitate the economic progress and growth of the economies.

Beck et al. (2000) investigated the relationship between financial intermediation and economic stability, per capita income, savings, accumulation of capital, etc. the findings of this study suggest a positive impact of financial intermediation on the earlier reflected issues. However, in long-run relationship estimation, the explanatory variable is of significant importance for predicted variables.

Multiple aspects of financial intermediation have been studied by Levine et al. (2000) by keeping in view the two major icons I) the financial intermediation II) the accounting policies and practices across the countries. The findings of this study came up with the findings that financial intermediation plays a vital role in bringing financial prosperity to the economy because appropriate and legal financial transactions result in the better involvement of financial intermediation, which may cause financial prosperity at the bottom line. However, significant accounting reforms and policies of upgraded accounting systems may result in appropriate financial development and, consequently, better economic growth.

By keeping in view, domestic investment Ndikumana (2000) conducted a study to highlight its impact on financial development. This study argued that domestic investment would help to mobilize resources that will engage the economy in different desirable perspectives that may lead to the economic well-being of the economy. Specifically, in the case of sub-Saharan Africa, this study concludes that there is a spillover effect of domestic investment, which firstly strengthens the financial development and then, as a result, causes economic well-being in the economy.

The absorptive capacity of FDI in stipulating financial and economic growth was highlighted in the study of Omran and Bolbol (2003). This study considered FDI as an indicator to attract investment in Arabian countries, resulting in cash inflows in the under consideration countries. However, this particular study also accounts for the financial well-being and economic progress. The findings suggest that the financial development and economic progress nexus is considerable up to a specific threshold. After that, it may result in a non-influence at the bottom line.

Money and financial intermediation are the key elements of the financial system (Hung, 2003). According to the study by Hung (2003), these instruments should be addressed while discussing financial development and their ultimate effects on economic growth. However, the stronger the financial system, the stronger will be the economic progress at the bottom line. However, the lower inflation rates cause financial stability and thus result in economic progress in any concerned economy. Khan and Senhadji (2003) study endorsed the finance-led growth relationship through its theoretical and empirical estimation. The confirmation of finance as a contributor to growth can be cited for further implications for financial stimulation and appropriate policymaking. Christopoulos and Tsionas (2004) consider the finance-growth nexus by utilizing the panel data of developing countries. By applying different econometric techniques and, most specifically, threshold analysis, the findings conclude a unidirectional causality between financial development and economic growth in the concerned economies.

Campbell and Hopenhayn (2005) consider the market size for evaluating distribution channels and considerable agenda points in terms of the market. However, the study concludes that the market size is of considerable importance in large economies where the minute change in the market brings more significant results than the small ones—the market size matters in the decision of the size of an economy. The concluding remarks of the research suggest that the larger markets are the attorney in terms of changes in the economy and economic well-being. However, at the same time, this study also demonstrates the Schumpeter (1911) theorem of the supply-leading hypothesis. Financial development is sensitive in all ways of growth. It can be monitored so that the constructive areas could be considered and destructive areas in the finance-growth interrelationship should be avoided.

The operationalization and sustainability of the credit market have been studied by Deidda (2006). This study focuses on the fact that the more the financial development, the more competitiveness in the financial markets, which will result in the sustainable economic growth of the economies. However, the involvement of technology and financial innovation will lead to stability in the flow of funds and better utilization of resources. However, the emergence of this issue illuminates the new horizon through this study that the finance-led growth option is appropriate for

economies with strong footings of growth; hence, the less developed countries show relatively opposite results compared to the developed – weak and negative.

ASEAN-4<sup>6</sup> countries are important while considering the financial development and its interring relationship with economic growth (Majid and Mahrizal, 2007). This study was concerned with concluding the scenario of financial development by taking the substance of economic growth and its related areas. This study is concerned with applying upgraded econometric techniques to get the concluding remarks of the research. The findings in the case of Indonesia are aligned with the results of Lucas (1988), which confirms the no causality between the finance-growth nexus. However, the findings demonstrate a relationship between financial development and economic growth in other countries.

By keeping in view, the issue of financial deepening, Apergis (2007) conducted a study to conclude this varied issue. However, this study created three different constructs to reflect the different research horizons. However, this study applied different econometric techniques and, most specifically, handled the dynamic heterogeneous panel. This study confirms the emergence of financial development for economic growth.

The mix influence on the finance growth interrelationship is cited in the study of Abu-Bader and Abu-Qarn (2008). The stance is that the common phenomena of finance-led growth have some limited version of empirical background in this study because a little effect can be cited over the strong impact of growth in attracting financial development. The variation in results depicts the beauty of the implications of the results due to the change in the region, area, or target economies. However, the illumination of the consensus point is still awaited.

Jun, Wan, and Jin (2007) studied the mobilization of investment, management of returns, and well-being of financial resources. The evaluated period for the under consideration study was 1987-2001 in the Chinese context. By considering China as a region under consideration, this study focuses on the strategy of regional alliance in terms of finance growth nexus. The structure of this study was a blend of different

<sup>6</sup> Indonesia, Malaysia, Thailand and the Philippines

provinces that are operational in China. The study confirms a significant relationship between financial intermediation, financial stability, and economic growth on a consensus basis. The results are not equally applicable because there is a mismatch of these results in the case of coastal and those provinces that are in-land.

Financial development and economic growth can be a recondite issue because the well-being of the economies is based on this concerning issue. However, Zang and Kim (2007) conducted a study to analyze the finance-growth nexus empirically. This study reviewed the theme of two studies related to the finance-growth nexus – Robinson (1952) and Lucas (1998). The analysis segment of this research showed unique results in contrast to the general phenomena prevailing about the highlighted stance. The findings revert the existing sensation that financial development causes economic growth in a one-way relationship. Conversely, economic growth may develop financial circumstances on the bottom line. However, after the rejection of financial development's effect on the growth of an economy, there is a need to adopt a prudent way to harmonize the growth options. There is a dare need to re-evaluate the overwhelming financial development catalyst and their related areas of interest. By keeping in view the factor of regional finance growth nexus, Vaona and Patuelli (2008) addressed the same issue in the region of Italy. The findings suggest that the funds at the regional level are contingent on financial development, and at the regional level, financial development is the key determinant of economic growth. Financial development has been operationalized bank capital level by Jokipii and Milne (2008) by taking 25 European Union (EU) countries as a sample. These 25 countries were a blend of 10 and 15 countries that were new and existing EU countries. The findings of this study showed the diverse influence in terms of negative pro-recurring relationship with economic growth.

Hsueh et al. (2013) study was conducted on the footprints settled down by the Kónya (2006). The study focused on the deliberate factors laid down by Kónya in 2006 by prioritizing export and growth. However, by applying different econometric techniques and doing sensitivity analysis, the study concludes that the growth shows its sensitivity towards financial development and confirms the supply leading hypothesis in the case of selected ten Asian countries. The concluding remarks of this research

highlight the importance of financial development and its management to ensure economic progress in Asian countries.

By doing the review base analysis of the finance and growth relationship, Saqib (2015) concludes that the different researchers argued different viewpoints on the varied issue. However, the traditional measurement practices and some recent practices have evolved to figure out this issue. The concluding remarks of this research shed light on the fact that this issue is still inconclusive and shows varying results in the manner of direction and conformation of the relationship. Somehow in the continuation of the study of Saqib (2015), the study of Akbas (2015) concluded an association between the finance-growth nexus. Still, this association is regarded as a weak, which raised different questions marks on the authenticity of the subject matter.

Using a simultaneous equation model on the 12 MENA countries from 1990 to 2011, Omri, Daly, Rault, and Chaibi (2015) conducted a study to find out the relationship between financial development and related areas of economic progress by keeping in view the environmental issues and trade concerns. This study's findings suggest a bi-directional causality between financial development and the under-consideration problems of the study. However, the practical implications of this study conclude that financial development is concerned in the case of the economic progress of an economy, specifically in the case of selected MENA countries. Financial stability caused the sound ground to instigate the trade opportunities in these countries, and thus, trade opportunities, as a result, drive economic prosperity in MENA countries.

African region countries are emerging their way to be well-developed countries. However, the struggle is formulated to engage the stock market and banks to achieve desired results. The study of Assefa and Mollick (2017a) captures this varied issue and considers the two mainstream items – the stock market and banks – to achieve the aim of this study. By taking 15 years of data from 15 African countries and applying different econometric and statistical tools, this study concludes that African countries are the good recipient of FDI and portfolio flows – representing financial development, contributing to economic growth.

By taking China and India as the target countries and taking the large data set of 43 years, Shahbaz, Kandil, Mahalik, and Nguyen (2017b) examine the determinants of financial development. After checking the stationarity of the concerned variables for

both countries, different econometric tests were applied. However, the findings of this research advocate that economic growth is a cause of globalization that leads toward financial development, and ultimately, this will authenticate economic growth. Asongu and Nwachukwu (2017) conducted comprehensive research on multiple African countries' development circumstances to attain financial and non-financial aid. The data in this particular research consist of infrastructure, financing capacity, and industrial performance. By applying various statistical tools, this study concludes that the development in different stances will add value to the existing development in a country and, most specifically, in the case of African nations.

Finance-growth phenomena are recognized in the majority of the countries but with the stake of different attributes which have a contingent and robust impact on a situation in a very logical way. However, Badeeb and Lean (2017) concluded in their research that financial development is considered essential for economic growth. However, if oil prices are included, the relationship will be changed as it will slow down the growth and vice-versa.

By taking the large data set of 79 countries, Bremus and Buch (2017) determine the bank-growth nexus. However, this study portrayed that shocks produced due to the change in bank activity level have a direct and significant impact on the GDP of an economy. Hence, the administrative issue for the economies is that openness in the cadre of finance has an adverse effect on GDP. For the implications, this study suggests that the banks with high credit ratios face leverage at the bottom line. The germane is purely the issue of financial management by co-integrating it with the issue of development. The policy is advised to adopt financial development if an economy wants to excel in economic growth (Mehmood and Bilal, 2018). The cumbersome in the area of financial affairs to determine the true understanding for the sake of getting economies of scale through better utilization of resources and the liberalization of financial policies (Babatunde, 2011; Gabor and Brooks, 2017; Grassa and Gazdar, 2014; Kyophilavong et al., 2016; Mehmood and Bilal, 2018; Sandleris, 2014; Younsi and Nafla, 2017).

Nyasha and Odhiambo (2018) reviewed the finance-growth nexus by keeping in view the findings of different researches. The findings of this study suggest that the relationship mentioned above is critical and shows different results and bottom lines in

different study settings and different disciplines. However, the economies should take reasonable measures to cope with this issue. By taking the data from 1970 to 2016, Cevik and Rahmati (2018) investigate the Libyan economy as a resource-dependent economy. The considerable points related to the findings of this research showed that the institutional quality in the manner of Govt. spending and channelization of resource allocation helps the economies better comprehend the relationship between financial development and economic growth and, most specifically, in the case of Libya.

Ouyang and Li (2018) conducted a study to conclude the relationship between financial development and economic well-being in panel data from different provinces of China. The findings of this study gave a broad conclusion about the earlier discussed relationship as the financial development represents the negative impact in the case of economic development in the provinces of China. The same issue is also tinted in Chen et al. (2020) study, which portrays the varying results in both situations – positive in the short-run and negative in the long run. Mehmood and Bilal (2021) investigated the finance-growth nexus and concluded the emergence of different financial attributes in attaining economic growth in developing countries.

### 2.3. Financial Depth and Economic Growth Nexus

Domestic credit to the private sector is lucidly impacting the financial setup in an economy. Arteta and Hale (2008) argued that domestic credit has a considerable impact on the emerging markets inclined to their sovereignty. The intention for the said situation's managerial construction is critical and may vary from economy to economy. The debate for financial depth and growth of the economies has been considered an ongoing debate since the 19<sup>th</sup> century—however, the direction of causality matters in defining the flow of success of the system. The direction of causality can be cited in different studies from financial depth to growth, and in some studies, it is mentioned as growth to financial depth. The conclusion about this phenomenon can be cited in Odhiambo's (2008b) study, which narrates an un-directional causality from economic growth to financial depth. However, the flow chart leads to the clues of economic growth that lead to savings, and the financial depth can be attained.

The finance-growth nexus was identified and empirically examined by Wolde-Rufael (2009). This study evaluated the factors contributing to attaining the

perspectives of the theme of the study. This study highlighted different aspects – domestic credit to the private sector, liquid liabilities, investment opportunities for the inventors and better infrastructure, etc. – that contribute to attaining the growth options in an economy.

Shahbaz and Rahman (2010) conducted a study to comprehend the financial growth and foreign capital inflows nexus. By applying different econometric techniques and verifying the basic assumptions of the data, this study concludes that domestic credit to the private sector stimulates the economy and its progress significantly. A mixed influence has been observed in the direction of finance-growth options in the study of Kar et al. (2011). The study concludes that the findings are categorically specific to the country and showed different trends in their relationship with the change in the country. However, the circumstances and financial conditions of the different countries are different, and one consensus point cannot be portrayed at the bottom line.

Uddin et al. (2013) conducted a comprehensive study to determine the iconic factors vital in stimulating economies and productivity. By taking Kenya as a sample and applying different advanced econometric techniques to date, this study concludes that the domestic credit to the private sector has emerged as a vital indicator of financial development and hence increases the economic development of an economy – Kenya. Sandleris (2014) states an association between defaults in sovereignty and domestic credit. However, this association addressed an inverse relationship which vows that higher sovereign risk will lower the domestic credit to the private sector at the bottom line. A finance-growth phenomenon has been evaluated by Uddin, Shahbaz, Arouri, and Teulon (2014) by keeping developing countries in view. The bottom line of this study has proved that financial development incorporates economic growth and the economic well-being of developing economies. By keeping in view the situation of the finance-growth nexus, Law and Singh (2014) conducted a study to determine the behavior of finance for the economy's growth. This study highlighted the areas that reflect the bright and adverse circumstances of the involvement of finance. However, this study concludes that the optimal level of finance may bring the economic well-being of an economy.

Moreover, in continuation of the study of Law and Singh (2014), Areand et al. (2015) examine the criterion considered optimal or considerable in the case of financial depth. By applying different statistical analyses, this study concludes that the financial depth starts functioning negatively and exceeds the specific level<sup>7</sup>. Before and after study on European Union's financial crises was conducted by Asteriou and Spanos (2019) by taking the panel data of 26 countries. This study concludes that financial resonance affects economic growth by applying statistical and econometric techniques and dummy variables. Still, in case after the crises, financial development became the cause of resistance to economic growth from 1990 to 2016. The standard measures of financial depth are utilized for the proxy of financial development. However, as a result of these findings, the systematic involvement of adequateness of capital through domestic credits and credit management may serve as a shield in the period of the economic crunch. By taking the panel data from 1978 to 2012, Asghar and Hussain (2014) also confirmed the emergence of the financial development index concerning financial depth. However, developing countries are the implicit beneficiaries of financial depth while considering the economic benefits.

By taking the panel data of a region<sup>8</sup>, Abubakar, Kassim, and Yusoff (2015) conducted an empirical examination to find out the significant relationship between financial development and economic growth, better known as the finance-growth nexus. This relationship is of considerable debate and has gotten attention around the globe. The findings of this study confirm that banks' private credit and domestic private credit contribute significantly to economic growth. However, appropriate financial policies may stamp the development.

By taking the data UAE for 36 years on economic variables, Sbia, Shahbaz, and Ozturk (2017) conducted comprehensive research on growth, urbanization, and financial development. Outcomes of this study suggest that the indicators of financial depth significantly affect economic growth. However, bi-directional causality was concluded among the variables. The debate regarding the connections of financial development with the growth of the considered economies is ongoing, and differences in opinion can be cited in the earlier researches (Akbas, 2015; Asghar and Hussain,

<sup>7</sup> The criterion is, if the percentage of credit to private sector reaches to 100 in relation to GDP.  
<sup>8</sup> "Economic Community of West African States (ECOWAS) Region"

2014; Asongu and Nwachukwu, 2017; Babatunde, 2011; Greenwood and Jovanovic, 1990; Levine et al., 2000; Omran and Bolbol 2003; Sandleris, 2014; Shahbaz et al., 2015; Sehrawat and Giri, 2016). The study of Sehrawat and Giri (2016) was conducted to endorse existing phenomena of incorporation of financial integration to attain economic well-being. This study is the triumphant view of the finance-led growth connection. However, this study's destined economies – SAARC – are prescribed to focus on financial management and development to get the stamp of growth.

Shahbaz, Van-Hoang, Mahalik, and Roubaud (2017) conduct comprehensive research to evaluate the Indian economy's financial development. This study uses quarterly data over 40 years and applies many econometric techniques to conclude the aim of this study. This research concludes that there is a direct association between capital formation and icons of financial depth on the representation of financial development and economic growth because capital formation leads to a solid financial system, which affects economic stability at its best.

Islam et al. (2018) conducted a study to find out the co-integration between financial depth, FDI, and economic growth in the case of China. By applying different econometric techniques and doing further quantitative analyses, the finding of this study suggests that financial development has a significant and positive linkage with the FDI. However, FDI and financial depth join together, and as a result, economic growth may take place and most categorically in the case of China. It is worth mentioning that the volatility in the manner of finance growth interrelationship has been examined by the study of Zouaoui et al. (2018) by taking the panel data. The empirical examination was destined to determine the issue of financial depth on the advanced analytical footings. This study successfully stamped the volatility among the said issue and linked it with the investment opportunities available in the under-consideration economy.

Ibrahim and Alagidede (2018) conducted a study to determine the relationship between financial development and economic growth in sub-Saharan African countries. The study under consideration did the data purification and settlement as per the research requirement. By doing so, the data splitting and different statistical methods were opted to streamline the data. The findings suggest a positive and significant relationship between financial development – proxied through the indicators of

financial depth – and economic growth. However, certain contributing factors confirm the earlier mentioned relationship between these two. Moreover, the enormous financial capacity/ depth has a long-term impact on economic growth and vice versa.

The debate on financial interference in the growth functionality has been evaluated by Swamy and Dharani (2019). By considering the variables of financial depth and their related areas, the study is attempted to conclude the finance-growth nexus. The demanding criteria were applied to the under consideration issue to conclude the authenticated panacea. The logical reasoning behind the subject matter is the threshold effect deemed for the developmental process backed by financial engineering. However, the vital element of this study unveiled the fact that robust and contingent strategies should be devised for financial depth in the manner of credit management which shell leads the economic growth. The results of this study reflect the dominating factors that are equally admissible for the developed and emerging economies.

The performance of the different economies also has significant relevance in investment decision-making because the performance of sectors of any economy may vary from time to time and from circumstance to circumstance. These sectors purely depict the trend of doing work in an economy. These trends may be conditional or cyclic but are of significant importance in decision-making for the economies where they have to go. The performance of the various sectors in an economy advocates and is inclined to the financial performance and financial depth. This common factor depicts that one sector's performance in an economy may serve as a bailout process for the many other relevant areas of interest. However, credit management, money circulation is the deterministic agendas when discussing economic growth (Asongu and Nwachukwu, 2017; Deidda, 2006; Greenwood and Jovanovic, 1990; Herrera-Echeverri et al., 2014; Islam, 2018; Jones, 2007; Jude and Leveigue, 2017; Lardy, 1995; Pegkas, 2015; Tun, 2012; Yao, 2006).

Researchers are in continuous debate of digging the utmost evaluation of finance-led growth circumstances around the globe. The authenticity of this option may be cited in the capacity of Arestis and Demetriades (1997), Christopoulos and Tsionas (2004), Bittencourt (2012), Hoque and Yakob (2017), Nyasha and Odhiambo (2018), Sehrawat and Giri (2016), Swamy and Dharani (2019), and Zang and Kim (2007). Still,

there is a lack of consensus on what ingredients of financial depth – financial development – cause the exact growth for the economies.

## 2.4. Financial Access and Economic Growth Nexus

The recent viewpoint related to the growth options of an economy has several areas that are of considerable importance, and financial access and the availability of financial services are of emerging in nature because the access and the utilization of financial services may bring betterment in the standard of living (Ardic, Heimann and Mylenko, 2011). The world is competing for appropriate allocation and utilization of resources, and financial services availability and financial inclusion are emerging in nature in the current era (Ardic et al., 2011; Arora, 2014). In continuation of the supporters of financial development led growth connection (Arteta and Hale, 2008; Hung, 2003; Jun et al., 2007; Wolde-Rufael, 2009), the study of Shahbaz (2011) did a comparative analysis for economic development either more inclined due to FDI or financial intervention. The concluding remarks suggest that financial intervention/ financial access qualifies for economic growth more significantly than FDI.

By considering financial institutions' access through institutional quality as a prime indicator of financial development, Law et al. (2013) conducted a study to conclude the earlier mentioned issue. However, this study's findings make clear that there is a threshold effect of institutional quality and empowerment on the financial institutions on the economic growth of an economy. According to this study, up to a certain level, the financial intuitions and their financial management may affect the growth of an economy. After a certain level, the dominating issue will become meaningless, or in some cases, it may be harmful to the economies. The emphasis on institutional quality and their progress was also highlighted by Levine (1997), which ensures the ideology of finance-growth nexus.

Financial inclusion is attaining gradual importance in the present day as access to financial instruments, and financial services could be the robust sources for the success of the services provided by the financial institutions. The attribution of this phenomenon is based on how the customers and the potential customers are aware that these services are available to them to utilize (Arora, 2014; Shen et al., 2021). However,

the study's findings by Arora (2014) state the direct linkage of financial access with economic growth.

By taking the data of 77 countries for 1980-2007, Beck et al. (2014) conducted a study to conclude financial intermediation/ financial access and its effects on the specialized areas – size, growth rate, and volatility. By applying different econometric techniques and the implications of a different model, this study's findings suggest a strong impact of financial intermediation on the under-consideration issues. However, there is the only variation in results due to the size of the economy. Financial intermediation affects the low, middle, and high-level economies according to their size. The financial intermediation reflects financial stability strongly in low and middle-income countries, but higher volatility is estimated in higher-income countries.

The implications and effects of financial inclusions are different for developed and developing countries. In a study by Arcand et al. (2015), financial inclusions are negatively related to economic growth in high-income countries. Whereas the study of De Gregorio and Guidotti (1995) separated the period into two sets, one for 1960-85 and the other from 1970-85, the correlation for the period of 1960 to 1985 was positive, and the negative correlation existed for 1970-1985. These studies indicate that developed countries may have got the point where increment in financial inclusion is no longer related to a positive relationship between economic growth and financial inclusion. The efficiency of investment decreases with increments. However, still, literature is not certain about the relationship between economic growth and financial inclusion.

In contrast, in developing countries, this relationship shows positive results. For instance, Pearce (2011) showed that financial inclusion increased the MENA (the Middle East and North America) region's competitive environment, increased incomes, reduced poverty, and generated new employment opportunities. Still, MENA has limited financial services under the control of NGOs. If we look at some other countries, as Sharma (2016) checked the relationship between the economic growth and financial inclusion in the Indian economy, the results indicated the positive behavior of economic growth and financial inclusion.

Desbordes and Wei (2017) studied the financial system's performance to conclude this significant issue. However, the study considers different significant

elements that are persistently managing the hold of financial development. The valuable remarks of this study show that the economies should focus on the management and up-gradation of their financial system so that this valued financial system can cause the growth of the concerned economy. The digitalization of the financial system can drive financial innovation (Gabor and Brooks, 2017). The earlier considered issue is sensitive because this particular process can boost the financial system in its functionality, but the ultimate management of this stance is desirable. However, the endorsement of a planned financial system can cause growth options.

Institution quality and their relevance with financial development are of considerable debate. However, the study of Fernández and Tamayo (2017) provides insight through a theoretical and empirical survey. The primary focus of this study was institutional quality measured through transaction handling procedure, transactions cost, and contingency plans against any of the related circumstances. The findings of this research highlighted the thematic relevance of institutional quality with economic growth, which, however, leads to the economic well-being of the concerned economy. The implications suggest that, along with many others, asymmetric information and poor market discipline are the key hurdles in institutional quality and financial development. Moreover, this will react pathetically to the economic growth.

By considering financial inclusion as a pacemaker of economic growth, Sethi and Acharya (2018) took data from 31 countries around the globe to conclude the emergence of financial access in attaining economic growth. However, the findings conclude that financial access is of considerable importance while considering the economic growth of the economies. Financial inclusion/ financial access has been studied by Ratnawati (2020), and the findings of this study narrated that financial inclusion has a significant impact on the economic well-being of an economy. However, the stance of this study is that prudent financial inclusion will result in the desired results. In other cases, irregularities may occur in the financial system and mislead Asia's growth options.

Recent literature between financial inclusion and economic growth supports the positive link. For instance, Shen et al. (2021) investigated the spatial data and techniques on 86 neighboring countries and concluded that digital financial inclusion boosts economic growth and has spillover effects. Adedokun and Aga (2021) found a

positive link between economic growth and financial inclusion in Sub-Saharan African countries. Menyelim et al. (2021) also investigated the relationship between financial access and economic inequality in 48 Sub-Saharan African countries. They found a negative link between financial access to the relationship between income inequality and economic growth.

Financial inclusion has been considered in the study of Adedokun and Ağa (2021). By viewing the period from 2004 to 2017, the study concluded that financial inclusion significantly and positively impacts the countries' economic growth under consideration. This study's findings also conclude the direction of causality among the finance-growth nexus that economic growth leads to financial inclusion in the short run.

## 2.5. Financial Efficiency and Economic Growth Nexus

Financial efficiency has meaningful effects on financial stability and economic growth. Blejer's (2006) study concludes the authenticity of financial efficiency about financial stability and economic growth. The study provides a systematic flow of attaining economic success from financial efficiency. To estimate financial efficiency and financial development, Hasan, Koetter, and Wedow (2009) conducted a comprehensive study by taking a sample of 100 countries between 1996 and 2005. The findings of this study suggest that financial efficiency and cost-effectiveness are of significant importance while considering the economic growth of developed economies. At the same time, financial efficiency is also a key attribute in defining economic growth in developing countries.

By doing a comparative analysis of the developing and the developed countries, Waheed and Younus (2010) consider financial depth and efficiency as the defining figures in attaining economic growth. The findings revealed the dynamic impacts of financial depth and financial efficiency on economic growth because the positive and significant effect of financial depth can be cited in growth. Still, the positive and insignificant impact of financial efficiency can be viewed at the bottom line of the under consideration research. Financial efficiency is not the only way to attain economic growth in the concerned countries. The institutional quality, financial institutions' supervision, and other related areas are also of considerable importance (Gabor and Brooks, 2017; Waheed and Younus, 2010).

Financial efficiency was considered to bring economic growth in the developing countries by Saqib (2013). The lifestyle of the residents depends upon the purchasing power parity (PPP) and financial well-being of the residents of a country. The stable and strong PPP depends upon several circumstances, whereas institutional quality, well defined financial system, and an increase in per capita income are the major stakeholders of the concern. By keeping in view the earlier-mentioned scenario, Ahad et al. (2017) estimate the contingent effect of a stable financial system with the import capacity. Using a multivariate model, the findings of this study suggest that financial development significantly attracts imports, and imports are negatively and significantly correlated with import prices and vice versa.

Inflation is a major hurdle in the way of financial development. This may reduce the purchasing power parity and overall financial stability of an economy. By taking the annual panel data set of 22 years for 40 developed- and developing countries, Younsi and Nafla (2017) concludes that the financial-development is a key to the economic well-being of the developing countries. On a macro level, the campaign of financial development starts from a well-defined monetary policy and through appropriate financial reforms. However, financial crises have a negative and significant relationship with economic growth, and these results indicate the robustness of the banking system on the whole.

By considering the financial efficiency and interest rate, Assefa et al. (2017b) conducted a study on how these factors contribute to economic growth. The findings suggest a negative and significant impact of interest rate on the stock prices and growth. This could happen due to the inverse connection between interest rates and growth and vice-versa. By taking sub-Saharan countries, the study of Jalloh and Guevera (2017) conducted a study to conclude the issue of financial depth and efficiency. The findings of this study conclude that financial depth played a significant role in bringing economic growth in the under consideration countries. At the same time, the interest rate spread is adversely affecting economic growth. Specifically, there is an endorsement for the low-interest rate spreads to promote the financial efficiency of these countries. Moreover, the authorities and the governing bodies should take care of this issue to ensure financial efficiency and thus attain economic growth.

The transitional phase in confirmation of the finance growth relationship is on its way to evaluation and understanding. The complete theoretical and empirical assessment will give a concrete bottom line about this varied issue. By keeping in view, the knowledge of this core issue Bist (2018) conducted an empirical examination to conclude that either the relationship between finance and growth is available or this study was also in a hunt to the determination of the type of relationship – long or short – and the direction of the relationship as well. For attaining the aim of this study, 16 economies regarded as low in their respective income were selected. Data over two decades was collected for empirical analysis and understanding. The results of this study were aligned with the results of Beck et al. (2000), Law and Singh (2014), Abubakar et al. (2015), Shahbaz et al. (2015); Shia et al. (2017), Islam et al. (2018) which states that there is a: I) positive, II) significant, III) strong and IV) long-run relationship exists in the contemporary issue.

By taking the cross-country data for forty years, Neanidis (2019) conducted an empirical examination to find out the role of financial institutions and, most specifically, the role of the banking sector on the FDI – growth relationship. The concluding remarks of this study suggest that the banking supervision/ efficiency and institutional quality are the tycoons in between the FDI – growth relationship. The banking regulatory bodies should monitor the financial system to get the desired results and appropriate deployment of the financial system.

The compliment for taking the credit for growth has been cited in earlier research (Baltagi et al., 2009; Gabor and Brooks, 2017; Law et al., 2013; Sehrawat and Giri, 2016; Shahbaz and Rahman, 2010). The same endorsement can be cited in Combes, Kinda, Ouedraogo, and Plane (2019). The composition of the findings of this research showed variations in its outcome. These variations are subject to the change in the subject matter of destined variables that are progressively hitting the target. The nutshell of the findings comprises the contingency of the events that happened to support and negate the subject matter. The efficiency and financial flows matter a lot in deciding the ultimate influence on growth and other relevant areas of interest. However, the direct linkage between the financial flows and growth can be cited because the flows' volatility made volatile growth and vice versa.



However, the confirmation of financial development through financial intermediaries' involvement in sanctioning credit and interest rates management can play a vital role in financial development. However, through appropriate awareness through credit information index, interest rates and credit management can better adopt financial instruments. However, financial development is the key contributor to attaining growth in the selected developing countries (Manu et al., 2011; Saqib, 2013; Vaona and Patuelli, 2008).

The literature suggests that financial development dimensions can help reduce income inequality and economic growth. However, the efficiency of the financial sector is the deterministic criterion for achieving economic growth on the global average (Blejer, 2006; Hasan et al., 2009; Waheed and Younus, 2010). In addition, the literature also suggests that banking sector development has a stronger positive effect on income distribution than stock market development. The overall concern is the efficiency of the concerned economy's financial sector that may uplift the economies, reduce income inequality, and strengthen economic growth (Alfaro et al., 2010; Assefa et al., 2017b; Jalloh and Guevera, 2017; Rioja and Valev, 2004).

## 2.6. Financial Stability and Economic Growth Nexus

Different theories have their viewpoint about financial instability, and thus, this may vary according to the period, economies, and global factors. However, numerous issues can be cited in the literature that may affect the financial system. The financial literature considers some of these issues as hasty liberalization of the financial sector, mismanagement in financial matters, inappropriate policy-making, unjustified resource allocation, and irregularities in the financial system (Ghassan et al., 2021; Shahbaz et al., 2011; Swamy and Dharan, 2019).

The major concern for financial stability deals with the proportion of non-performing loans in the credit allocation process and loan repayment system. This may arise due to the inappropriate loan granting systems and fund management. The financial institutions should focus on the repayment of loans and their proper functioning to rehabilitate the financial stability and thus attain economic growth in the concerned economy (Blejer, 2006; Manu et al., 2011). Bittencourt (2012) examined financial stability and economic growth nexus by taking Latin American countries as a

base. The study was undertaken to re-investigate the theorem of Schumpeter (1911), which has mainstreamed the agenda of economic growth. This study took time-series and panel data to investigate whether entrepreneurial activities channel financial resources through the financial sector can boost economic growth at the bottom line. However, the concluding remarks of this research suggest that the Schumpeter (1911) theorem was based on reality, and the findings of this research were confirmed by the study of Bittencourt (2012). Moreover, economies should focus on macro-economic stability if economic growth is destined.

The role of Govt. is a high-profile stance in the case of economic and infrastructure stability. Ting (2017) brings 2008 as a base year and empirically examines the different areas of interest. This particular year has a fame for financial crises by keeping in mind this core issue. The stability of the macro-economic stance of any country is based on the financial and economic policy of any country. The financial institutions' performance and activity do matter in bringing the financial system's stability and thus result in economic growth. However, the role of banks and stock markets is considered significant in this regard. The findings of this research provide groundbreaking results in its field. It denominates that the negative impact of financial liberalization has a significant effect on the financial crises of the earlier mentioned period. Moreover, banks cannot align with financial-stability measurement but serve as a player to make it stronger. The findings are also following the footings of Bittencourt (2012), Beck et al. (2014) and, Omri et al. (2015), Sehrawat and Giri (2016).

Hoque and Yakob's (2017) study examined the extended version of this issue by taking the latest version of finance growth nexus evaluation through some moderating elements involvement. The modality of this research lies in the induction of moderation of the assessment of the subject matter. The estimated elements of this study conclude that the Malaysian economy can gain a boost if it focuses on the subject matter – financial development. However, the edge of this study was to get an authentication stamp in the manner of inducting moderating elements, which represents a more comprehensive and advanced view of the subject matter.

The Finance-growth nexus is a debatable concern, and the beauty of this issue lies in the fact that it showed a difference in the results among different countries. To

bridge the gap and create a consensus among the researcher's viewpoints, Söderlund and Tingvall (2017) conducted comprehensive research on the case of China. The competitive edge of this research is also that the provincial level data were gathered and analyzed. This study's concluding remarks showed that financial development significantly boosts overall economic growth by taking "marketization of financial system and economic growth" as the main attributes.

By taking the data of 31 countries on board, Hou and Cheng (2017) conducted a comprehensive study to highlight the dominating factors that affect economic growth. After applying different econometric tools and other analytical techniques, this study concludes the unique findings at the bottom line. However, while connecting the stock market and functionality of the banking sector, one should consider the era of evaluation first because the performance of these macro-economically integrated indicators elapses their performance with the change in the time frame, market conditions, individual investing behavior may tend to change time-to-time. The bottom line of this research indicates that the more a country engages in financial activities, the more fruitful results will be.

Since the global financial crisis of 2007, the finance growth nexus has become important in the literature on financial development and economic growth relationship (Carré and L'œillet, 2018). This research is primarily focused on the pre and post-financial crises analysis. However, this study reviewed different investigations focusing on finance growth nexus based on pre and post-financial crises. It concluded that there is no consensus on the elements on an overall basis. Still, on a specific cause, certain factors contribute towards financial development, resulting in the economies' economic well-being. Moreover, financial instability, inflation, and inappropriate financial intermediation may result in the mismanagement of the financial development of different economies. Financial stability has been viewed by Ghassan et al. (2021). The view of this study is based on the financial policies and regulations authorized by the banking sector for the administration of financial stability. However, in the long run, financial stability authenticates economic growth.

The augmented beauty in the empirical findings of earlier cited research lies in the variety of observations, data sets, time frame, methodological differentiation, and most importantly and basically above all, the variations in their viewpoints/ conclusions

of the research. The approaches of differentiation can distinguish the issue of variation in the findings in the circumstances – security empowerment, food and health, technological empowerment, political stability, human capital administration, enchanted infrastructure, managed and supreme law and order situation and entrepreneurial mindset, etc. – of the concerned economies/ target population and these circumstances may be the predictors on individual or the blend basis (Arteta and Hale, 2008; Bist, 2018; Economou et al., 2017; Greenwood and Jovanovic, 1990; Hamdi, 2015; Hoque and Yakob, 2017; Loungani and Razin, 2001; Moosa and Cardak, 2006; Scott-Kennel, 2004; Thanawala, 1994; Vaona and Patuelli, 2008).

The ongoing debate is still didn't attain solitary and has different opinions and options as per change in time, place, and circumstances. The case-to-case variations soothe the need to determine the facts and figures that can be called determining factors in the under consideration scenario. Certain studies are confirming the emergence of finance-led growth options (Abubakar and Gani, 2013; Aluko et al., 2020; Asghar and Hussain, 2014; Cevik and Rahmati, 2018; Christopoulos and Tsionas, 2004; Combes et al., 2019; Hamdi, 2015; Hsueh et al., 2013; Hoque and Jun et al., 2007; Nyasha and Odhiambo, 2018; Yakob, 2017; Zouaoui et al., 2018). The bottom of different researches reflects the inconclusive results about this varied issue, and some of them reflect mixed results so far (Deidda, 2006; Law and Singh, 2014; Zang and Kim, 2007). However, this extensive literature has studied the different measurement criteria of finance development and economic growth. The measurement criteria are also different from one study to another study. These measurement criteria also showed huge sought of variation in individual and overall group levels. There is also a need to develop comprehensive measurement criteria to ensure this core issue's simple and lucid functioning. The difference in views vows the emergence of a study that can provide a panacea in its understanding, vision, and functionality.

2.7. Comparative View of Different Studies on Finance-Growth Nexus

Table 2.1: Summary of Selected Previous Studies on Finance-Growth Nexus

Empirical Study	Time Frame	Country/ Countries	Methodology	Major Findings
<b>Major Studies on Finance-Growth Nexus</b>				
King and Levine (1993)	1960-1989	80 Countries	Co-integration and Sensitivity Analysis	FDEV → EGRT
Levine (1997)	1976-1993	Low, middle and high-income countries	Structural Analysis, Correlation Analysis	FDEV → EGRT
Beck et al. (2000)	1960-1995	63, 77, 61, and 72 Countries	Dynamic Panel Technique	Accounting reforms strengthen FDEV, and resultantly, EGRT stamped
Rioja and Valev (2004)	1960-1995	74 Countries	GMM Dynamic Panel Techniques	FDEV → EGRT
Al-Awad and Harb (2005)	1969-2000	10 Middle Eastern Countries		FDEV impacts EGRT up to a considerable level. No clear direction is concluded.
Deidda (2006)	-	Developed and less developed economies	Econometric and Statistical Analysis	For developed countries FDEV (+) → EGRT For less developed countries FDEV (-) → EGRT
Apergis et al. (2007)	1975-2000	15 OECD and 50 Non-OECD	Pedroni Panel Cointegration	FIDEE ↔ EGRT
Hassan et al. (2011)	1980-2007	Low, middle and high-income countries	Panel Co-Integration and Causality Analysis	FDEV → EGRT

Table 2.1 Continued

Bittencourt (2012)	1980-2007	4 Latin American Countries	Panel pooled, fix, and random effect model	Confirms Schumpeter's Theory
Law and Singh (2014)	1980-2010	87 Developing Countries	Developed and Dynamic Panel Model	Threshold effect between FDEV and EGRT. It is significant up to a certain level.
Asghar and Hussain (2014)	1978-2012	15 Developing Countries	Pedroni Panel Cointegration	FDEV → EGRT FDEV ↔ FORDI
Beck et al. (2014)	1980-2007	77 Countries	Pairwise Correlations	FDEV → EGRT
Omri et al. (2015)	1990-2011	12 MENA Countries	Unit Root Testing, GMM	TOPP ↔ EGRT FDEV → EGRT
Schrawat and Giri (2016)	1994-2013	SAARC Countries	FMOLS and PDOLS	FDEV → EGRT
Ibrahim and Alagidede (2018)	1980-2014	29 Sub-Saharan Africa	Threshold Estimation Technique	FDEV → EGRT
Zouaoui et al. (2018)	1960-2016	50 Developing Countries	Fixed Effects Estimator	Volatility in FDEV and EGRT is stamped
Swamy and Dharan (2019)	1983-2013	24 Economies		FDEV (-) → EGRT
Aluko et al. (2020)	1990-2015	33 Sub-Saharan African	PMG Estimator and GMM Estimator	FDEV → EGRT
Mehmood and Bilal (2021)	1991-2017	10 Developing Countries	DCCE Model	FDEV → EGRT

**Bidirectional Causality between Financial Development and Economic Growth**

Blackburn and Hung (1998)	-	-	Multi-country version of the model	FDEV ↔ EGRT
Abu-Bader and Abu-Qarn (2008)	1960-2004	5 MENA Countries	VAR and VECM	FDEV ↔ EGRT

Table 2.1 Continued

Swamy and Dharan (2019)	1983-2013	24 Economies		FDEV ↔ EGRT
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**Non-causality between Financial Development and Economic Growth**

Zang and Kim (2007)	1961-1995	74 countries	Sims-Geweke test	No causal link between FDEV and EGRT but a substantial link between EGRT to FDEV.
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FDEV may read as financial development and EGRT is the abbreviation of economic growth. FIDEE = financial deepening, VAR = vector autoregressive, PMG = Pooled mean group, GMM = generalized method of moments, FORDI = foreign direct investment, TOPP= trade openness, ARDL = autoregressive distributive lag, ECM = error correction model, SUR = seemingly unrelated regression, TSLS = three-stage least squares, MFR = Mixed Fixed and Random, RQ = regulatory quality

Source: Compiled by Author

2.8. Summary

The spoonerism in evaluating financial development is challenging and debated in different studies. The theme of changing the status of many economies relies on these various issues (Abubakar et al., 2015; Chang, 2002; Combes et al., 2019; Desbordes and Wei, 2017; Ferreira and Matos, 2008; Hsueh et al., 2013; King and Levine, 1993; Sandleris, 2014; Swamy and Dharani, 2019). The earlier chronological literature on the subject matter reveals different aspects. This aspect ranges from measurement to evaluation criteria and variations in findings from economy to economy and time to time. Financial development is a systematic process depicted through this extensive literature and has significant clues and criteria that instigate further study. The managerial aspect is spotted in the literature, which urges to establishing a phonological design that saves the importance of the subject matter under consideration. The mixed influence of the results cited earlier also reflects the answer of many phenomena – what, when, why, where, and whom –narrating the backdrop of the majority of the studies.

This vast literature helps this study design its unique work method in light of previous research conducted by different researchers. The variation in viewpoints/ results is evaluated, and shall be incorporated in attaining the objectives of this study. The primary agenda of this literature was to find out the gap and the grey areas that should be addressed through this research so that the objectives of this study can be attained. The bottom line of this literature highlights the emergence of a study to

conclude the logical and empirical version of the financial development and economic growth connection.

The key points of this literature also provide different clues about the impotence of finance-led growth relationships in different kinds of economies – developing, emerging, and developed economies. At the same time, the current study is going to target the developing economies because these countries are regarded as those economies which are striving for their growth in any terms and options to change the status of their economy through economies of scale (Elkomy et al., 2016; Economou et al., 2017; Habibullah and Eng, 2006; Herzer and Klasen, 2008). However, this study will empirically evaluate the finance-growth by targeting developing economies.

2.9. Supply-Leading and Demand-Following Hypothesis

2.9.1. Overview

Certain aspects and dimensions are directly and indirectly related to the finance-growth nexus. These aspects are essential and need a prudent attraction for their explanation. However, among many other aspects, the supply-leading and demand-following hypotheses are important while considering the finance-growth nexus (Chow et al., 2019; Fan et al., 2018; Isu, Okpara and Ch, 2013; Karimo and Ogbonna, 2017; Tadesse and Abafia, 2019).

2.9.2. Context of Supply-Leading and Demand-Following Hypothesis

The context of issues as mentioned earlier gained considerable importance in the era of the competitive edge where the economies are in search of clues to find the exact pathways of development and economies of scale (Adeyeye et al., 2015; Chaudhry et al., 2013; Mehmood and Bilal, 2018; Muyambiri and Odhiambo, 2018). However, the supply-leading hypothesis depicts the context that there is a need for a well-developed financial system to attain the growth of an economy (Blackburn et al., 2005; Habibullah and Eng, 2006; Murinde and Eng, 1994). On the second side – the demand-following hypothesis – the applicable concept is that the growth results in the financial system's development (Isu et al., 2013). These two concepts are opposite of each other, and in the manner of their concern, the debate on both these hypotheses is ongoing. Different studies have been conducted on these issues, and various studies

show the difference in their viewpoint. However, the present study includes selected literature on these issues to get better insight and the ultimate conclusion.

### 2.9.3. Review of Selected Literature

There are many empirical investigations available on the issue of financial development and economic growth phenomena. These investigations are based on the serious concerns related to finance, financial development, financial deepening, research and development, infrastructure, technological advancement, and skill orientation to the human capital that may, directly and indirectly, mark the economic growth (Adeyeye, 2015; Akinci, 2013; Chow et al., 2019; Karimo and Ogbonna, 2017; Murinde and Eng, 1994; Rioja and Valev, 2004; Zhao and Du, 2007). Financial well-being and economic sovereignty are the top priority concerns of every country (Muyambiri and Odhiambo, 2018; Neanidis, 2019; Rajan, 2006; Uddin et al., 2013). The economists are in a recondit situation to get an insight into the financial issues and the economic conditions in the concerned economies. In the era of global competition, policy-making, theory building, and coming up with a concrete conclusion is a fanfare task (Thanawala, 1994). Economic growth is relevant to the macro-economic indicators and can be dignified somehow at the micro-level. The commentators shed light on the emergence of market selection, investment categorization, new and advanced technology, and identifying key customers in terms of growth options (Carlsson and Eliasson, 2003).

Different economies follow different schools of thought to express their views about financial concerns and economic sovereignty. The differences in their point of view are based on theory, practice, and the basis of literature available on the concerned issue (Aluko et al., 2020; Belloumi, 2014; Loungani and Razin, 2001; Wolde-Rufael, 2009; Zhang, 2001b). However, the considerable debate turned into the conclusion of logical reasoning of two different theories/schools of thought. I) is demand following theory and II) supply leading theory. These two theories are presented at different times and by various researchers to prove their viewpoints and give a logical verdict. The first

theory – the demand following theory – was developed by Robinson (1952), and the second theory was devised by Schumpeter<sup>9</sup> (1911).

The rationale of doing work by keeping in view the basic and logical concepts of demand-following and supply-leading hypothesis/ theorem is to understand the differential point that may create dissension between the earlier mentioned hypothesis. The literature has an authenticity about theorems that are predominantly devised by Patrick (1966). The study of Patrick (1966) introduced two different aspects in the existing literature of financial development – demand following and supply leading behavior. These two behaviors have a backdrop of two different opinions and methods of doing work (Akinci et al., 2013; Abubakar and Gani, 2013; Chang, 2002; Jalloh, 2015; Chow et al., 2019; Murinde and Eng, 1994). These two aspects can be differentiated on their unique identification of basic evaluation criteria. The growth-led finance options and finance-led growth are directly associated with the demand-following and supply-leading theorems (Patrick, 1966).

The contributing factors in these theorems are the evaluation criteria and basic functionality – evaluating the cause and effect relationship. This particular differentiation served as dominating evaluation criteria for the economies following either hypothesis at a specified period. However, these two concepts/ theorems are of relative importance and have significant contributions as per specified time and place (Karimo and Ogbonna, 2017; Thanawala, 1994; Wolde-Rufael, 2009).

Financial development and economic growth phenomena and their inter-relationship are of considerable impotence and debatable. To conclude this varied issue, Murinde and Eng (1994) conducted a study to verify the under-consideration pheromone and the stance to prove either the existence/ implementation of demand following or supply leading theories in the developing countries, i.e., Singapore. However, different econometric techniques and methods were applied, and a concrete conclusion was driven. The decision depicts that an economy like Singapore follows the supply-leading theory and focuses on rehabilitating. However, a need to reconstruct

<sup>9</sup> There is a contradiction about the publication date of Schumpeter's theory of economic development. Its publication may be cited in different research as 1911 and 1934 respectively. Both the dates are considerable because the German version of this theory was published in 1911 and its English version was published in 1934 (Thanawala, 1994).

and rehabilitate the financial system if an economy wants to create a pinnacle in economic development.

Thornton (1996) evaluated the finance-led growth relationship by taking 22 developing countries into empirical consideration. The thematic view of this issue is positive and preselected in the prescribed literature and can be cited according to the difference in the opinion of the researchers. The current empirical work provided ground-breaking results, and the empirical ground suggests the mixed influence in the finance-led growth relationship. The diversity of opinion shows that most of the countries are not inclined toward growth by apparent and concrete changes in the financial matters of the developing countries, and some of the countries can be cited in the empirical findings that have an inclination toward growth options when the financial system brings changes in their terminologies.

To test the demand following or supply leading hypothesis, Chang (2002) conducted a study to come up with the selection of at least one theorem to get a concluding insight about this issue. The findings of this study were recondit and didn't follow any of the early mentioned theories. However, the mainstream agenda is the finance-growth nexus; their behavior is in their way and autonomy in their mutual effects. Moreover, there is no confirmation –yet – according to this particular study that any hypothesis of finance-growth inter-relationship exists. The results are specific, not general, because of China's target population or the data used to analyze this agenda point. However, the issue of generalizability may be suspected in this case.

By taking the panel data of 109 industrial countries over approximately three decades, Calderón and Liu (2003) examine the influence of financial affairs in bringing prosperity to concerned economies. The suitability of evaluation criteria and appropriate model functioning can get the destined results, or at least the research can determine what it is destined to be. However, by keeping the emergence of the earlier mentioned issue and applying suitable econometric techniques, considerable points can be cited in the findings of this particular empirical examination. These considerable points are: firstly, there is a positive and long-run relationship between financial development and economic growth. However, one can conclude the significant influence of financial intermediation on the growth of the concerned countries. Secondly, the influence of financial matters is of considerable importance, most

specifically in developing countries rather than countries with great industry input and specific consideration for industrialization. Thirdly, the up-gradation of the financial system and appropriate policy-making about the core area of finance can bring overall certainty in bringing growth and stability. These indications confirm the thematic interpretation of supply leading scheduling, reflecting that finance and its related area are the conformation criteria for better growth opportunities and stability options.

By considering a large panel of 74 countries, Rioja and Valev (2004) conducted a study to determine the relationship and direction between financial development and economic growth. After a detailed analysis by utilizing the different econometric techniques, the conclusion of this research showed that the financial development has varying trends to the variation in region. However, regions are further categorized into different income levels and hence showed their performance according to the financial intermediation of the financial institutions prevailing in the market. The concept and theorem of the supply leading hypothesis were also confirmed in the study of Habibullah and Eng (2006), which provides the authentication stamp in the way of financial resonance to lead the growth options.

The direction of causality in the case of finance-growth nexus is concluded in the study of Odhiambo (2007). According to this study, the supply leading and demand following phenomena is a Gordian knot which showed their recondit results that may vary from economy to economy and from time to time. The consensus on the direction of causality in the finance growth nexus is not concluded as certain factors should be addressed to account for this varied issue. There is also a sensitivity in the measurement criteria of financial development and economic growth, which may also create a distinction in the concluding remarks of the under consideration issue. The bottom line of this research reflects that the flag of bi-directional causality is flagging in developing and developed economies. Still, less developed countries are concerned, contemplating the unidirectional causality in the concluding remarks.

The relationship and the direction of the relationship between financial development and economic growth were studied by Odhiambo (2008a). This study focused on the influence of this varies issue in developing countries. The subsequent results of this study reveal that the financial development and its management is a real tycoon behind the upgrading of economic growth. This issue is not only confirming the

positive and significant relationship between financial development and economic growth, but also, at the same time, it is confirming the theory of supply leading hypothesis. However, bi-directional causality in the under-consideration terms may be regarded as the conformation of the reciprocal hypothesis (Wolde-Rufael, 2009).

A comprehensive study was conducted by Akinci et al. (2013) by taking the data of less developed-developing- and developed countries throughout 1980-2011. This research aimed to conclude the relationship between finance and growth options nexus. The study was conducted to highlight the agenda in such a way so that the pertinent concept can be concluded in terms of the suggested three types of countries.

Financial development has different grey areas in its boundary that should be determined, evaluated, and mitigated. By keeping in view the earlier stance, Abubakar and Gani (2013) took the large data set for three decades by focusing on the Nigerian economy and did a comprehensive empirical analysis. The findings of this study were the first of its kind because it highlights different significant areas in the way of financial development that should be addressed on an urgent basis. The highlighted areas are mainly the issues of interest, variety of financial services, and financial deepening. Whereas, the demand following hypothesis is confirmed by Isu, Okpara, and Ch (2013) by keeping in view the context of the Nigerian economy.

The creation, movement, and management of financial resources are the major goals of financial institutions (Adeyeye, Fapetu, Aluko, and Migiro, 2015). According to this study, financial institutions should address financial issues lucidly to settle the economic issues. The problem in the financial system arises when the financial institutions are not performing as desired. However, by keeping in view the theme of Adeyeye et al. (2015), the basic functionality in the financial system is the appropriate management of supply leading and demand following germane. Moreover, this research's concluding remark reflects a bi-directional causality between financial circumstances and growth opportunities while considering the developing economies.

The monetization of sub-Saharan African countries was made to evaluate their connection with growth relative to the financial intermediation by Jalloh (2015). This study considered multiple countries of sub-Saharan Africa and did the empirical treatment to conclude the factual findings at the bottom line. The thumbnail information about the finance-growth connection showed variation in their results

because the different countries included in the concerned region showed different results in their empirical examination. The diversity in the findings and results was cited due to the diversity of the circumstances of different regions. By utilizing the time-series data of the specific countries, the suggested empirical results showed that certain countries/areas in the concerned regions have an association with finance-led growth. However, the results are contingent on many other regions negating the under consideration concept. However, the differentiation originated based on managerial and administrative practices of every region, which is concerned with producing their best and focusing on economies of scale.

Karimo and Ogbonna (2017) examined financial depth and economic growth nexus. The structure of this study follows different econometric techniques to dig out the exact path of the relationship between the earlier mentioned circumstances. The findings suggest that the financial deepening is the reason for economic growth. The direction of the relationship is of considerable importance because the growth depends on the financial deepening. By keeping in view the results of this research, the theory of supply leading can be proved at the bottom line.

The prudence of the developing countries relies on the continuous struggle in the manner of economic resonance, financial restructuring, technological up-gradation, and subtle settlement of financial policy (Al-Awad and Harbm, 2005; Blackburn et al., 2005; Carlsson and Eliasson, 2003; Lardy, 1995; Mahoney et al., 2001; Wolde-Rufael, 2009) but a variety of options still exist in the surge of multiple dominating factors that an individual economy have. However, in the wake of swerving findings and non-consensus of the conclusions of different researches, Fan et al. (2018) examines the Chinese economy to provide concluding remarks on the finance-led growth relationship. By adopting novelty in the evaluation and analysis process, the proved part of this research confirms the supply leading theory because the proof of growth options due to the financial reconstruction, management, and innovation can be cited. The focusing point of this research is to fix the issues of financial constraints. Appropriate policymaking should be devised to cope with the financial matters of the concerned country. By doing so, the growth process can be incubated, expedited, and can be stabilized. The consensus area can have a deliberate immunization to create the economies' strength therapy for the financial sovereignty. Hence, autonomy is not

gained by any of the studies that can claim sustainable results and generalizability in the finance-growth nexus (Muyambiri and Odhiambo, 2018).

The literature reflects a lack of consensus in the acceptance and rejection of supply leading and demand following theories in the different economies. The study of Chow et al. (2019) conducted an empirical examination to find out the existence of earlier mentioned theories in the selected economies. The findings suggest that the finance and growth phenomena address the same direction in the selected developing countries. However, the terms and conditions are confirmed by applying the most recent econometric techniques and by utilizing the updated proxies of financial development and economic growth in a contextual way.

In continuation to the existing literature on the supply-leading hypothesis, Tadesse and Abafia (2019) conducted an empirical examination to verify the current theorem. For this purpose, comprehensive data in terms of Ethiopia was collected for four decades. This thorough empirical examination was based on logical reasoning and a consolidated version of the supply-leading hypothesis and its related areas. The concluding remarks of this study confirm the theorem of the supply-leading hypothesis in the case of the Ethiopian economy. The specific prescriptions for the other economies like Ethiopia contain a significant contribution in the Govt. expenditures in the manner of security, infrastructure, reduction in the trade barriers, financial innovation, stability in political and economic policies, and skill up-gradation in human capital. However, the consensus points for the finance-growth phenomena are to develop a substantive measure to make financial reforms for the betterment of the economy and its stability. However, the measurement criteria of financial development and growth option may vary from country to country and time to time. This distinction reflects the authenticity of the uniqueness of the circumstances in different economies.

The earlier stated version of literature on the under-consideration issue showed a different viewpoint in different studies. The variation in opinions is obvious because every country/ region and group of countries is not having the same circumstances in their dealings. However, the variations in working capacity, circumstances, and work method result in accepting and rejecting demand following and supply leading behaviors. Some studies advocate for the supply-leading hypothesis (Aluko et al., 2020; Fan et al., 2018; Karimo and Ogbonna, 2017; Muyambiri and Odhiambo, 2018), and

some of the researches are believers in demand following hypothesis (Odhiambo, 2007). However, the lack of consensus can be cited in the existing literature concerning the under consideration issue.

The comparative view of the above-discussed literature review is given in Table 2.2 to better understand the issues under consideration. It can be seen in the literature that there is a difference in the viewpoint of different studies that are considered in the literature. Some of them support the supply-leading, and some consider the demand-following hypothesis. However, studies are also reflected in the literature showing the bi-directional causality between issues under consideration. However, Table 2.2 is designed to get a comparative view of the studies.

#### 2.9.4. Summary

The basic theme of the literature is to identify the most dominating hypothesis from the under consideration hypothesis – demand following, supply leading. As per the conclusion of this literature, there is a mixed influence of both these hypotheses on the real world. The mix influence is not based on a hit and trial basis. Still, it has some logical-based theories that can be the key contributor to accepting or rejecting the subject hypothesis. The policies and the method of doing work are not stagnant across the globe. However, the pre-estimation about the hypothesis that an economy should follow to get a competitive edge over the other rival economies is a millennium development goal and needs evaluation. The modulation in the economic and sovereignty circumstances is not monotonous and mollifies the predictive behavior of system evaluation.

The studies which are the muse in this study reflect the variation and non-consensus about the subject matter. Some literature studies support the supply-leading hypothesis, and some belief in the demand following hypothesis. However, the analyses of Akbas (2015) and Kar et al. (2011) didn't have logical attribution with any of the subject hypotheses because these studies attributed different contingent effects that were regarded as the defining criteria for the acceptance or the rejection of the subject matter. Moreover, the study of Chang (2002) depicts inconclusive results about the subject matter. The current study will also conclude with the mutation of the subject hypothesis under discussion.

2.9.5. Comparative View of the Literature of Supply-Leading and Demand-Following Hypothesis

Table 2.2: Comparative Analysis of Literature of Supply-Leading and Demand-Following Hypothesis

Empirical Study	Time Frame	Country/Countries	Methodology	Major Findings
<b>Supply Leading and Demand Following Hypothesis</b>				
Murinde and Eng (1994)	-	Singapore	Bivariate Vector Autoregressive (BVAR) Model	Supply-Leading Hypothesis
Chang (2002)	1987Q1-1999Q4	China	Granger Causality Tests	Inclusive Results
Calderón and Liu (2003)	1960-1994	Developing and Industrial Countries	Granger Causality Tests	Supply-Leading Hypothesis
Odiambo (2007)	1980-2005	3 Sub-Saharan African Countries	Granger Causality Tests	Findings vary from country to country
Isu et al. (2013)	1990-2009	Nigeria	Granger Pairwise Causality Test	Demand Following Hypothesis.
Nayan et al. (2014)	2005-2012	Panel of 10 Countries	GMM Estimate	Supply-Leading Hypothesis
Jalloh (2015)	1965-2012	African Countries	Granger Causality Tests	Bilateral Causation
Adeyeye et al. (2015)	1981-2013	Nigeria	Granger Pairwise Causality Test	Bi-directional causality
Karimo and Ogbonna (2017)	1970-2013	Nigeria	Granger Causality Tests	Supply-Leading Hypothesis
Tadesse and Abafia (2019)	1975-2016	Ethiopia	Granger Causality Tests	Supply-Leading Hypothesis

Source: Compiled by Author

2.10. Foreign Direct Investment and Economic Growth Nexus

2.10.1. Overview

FDI has been of great concern for the last couple of decades, and it is relatively important for both developing and developed economies (Chen et al., 2020; Creel et al., 2015; Khalid and Marasco, 2019; Saini and Singhania, 2018; Tiwari and Mutascu, 2011). The relative importance is based on two different agenda points related to two different types of countries – developing and developed. The major concern for developing countries in the case of FDI is the growth options that are associated with the flows of FDI, which helps these economies to gain a competitive advantage, economies of scale, and the opportunities at large scale to grow and to lead themselves from developing to emerging and emerging to developed economies. The inclination of developed countries towards FDI is due to the sustainability and up-gradation of their financial, economic, and technological concern in the short and long run (Dunning, 1988; Fischer, 1998; Mehic et al., 2013; Saini and Singhania, 2018). The emergence of FDI has gone through different stages and categories, which may become the identity of its reflection in the case of different kinds of economies (Tiwari and Mutascu, 2011; Tun et al., 2012; Zghidi et al., 2016).

2.10.2. FDI-Growth Nexus

The under consideration issue is a foreign direct investment and economic growth nexus. However, a different viewpoint is available in the literature about the inter-relationship of these concerns. Various studies endorse the impact of FDI on growth, different studies endorse negative impact, and different studies provide inconclusive results. However, the various researchers' different viewpoints and concluding remarks are depicted in the following literature.

2.10.3. Review of Selected Literature

Foreign direct investment is the key concern for attaining economic growth in the under consideration economies (Zhang, 2001a). Different countries have different special attraction points, which bound the economies to trade with the other economies regarding FDI flows – inflows and outflows. In the 21<sup>st</sup> century, the world is now a global village where the countries exchange their produce/ services in a very significant

way, and it has become the need of the hour to do that (Chaudhry et al., 2013). The mobility of resources and the exchange of goods and services is becoming a major source of earnings for the economies. Countries having greater opportunities to attract investment in their country are considered more successful and geared economies as compared to those countries which are lacking in attracting the investment in terms of FDI inflows (Almfraji and Almsafir, 2014; Blomstrom et al., 1994; Blonigen, 2005; Borensztein et al., 1998; Carkovic and Levine, 2005; Ferreira and Matos, 2008; Lucas, 1998; Loungani and Razin, 2001; Torissi, 1985; Wang, 2009).

*“Foreign direct investment is delivering an eye-opening circumstance related to its dealing; as per the fact sheet of UNCTAD (2018), there is an overall declining trend in the FDI flows. There is an overall 23% downfall in FDI flows to \$1.43 trillion on concrete facts and figures basis. On the contrary note, the developing economies somehow show their stable figure of FDI – \$671 billion – which is commendable in their peer economies. The figure of inflows of FDI in the developed economies is felled down – 37% – to \$712 billion. The downward trend in the flows of FDI in the case of transition economies is also cited. The declining ratio is 27% which is \$47 billion, which is alarming and is the second-lowest after the same content figure of 2005. The FDI is regarded as a key tycoon in the external sources of financing of the developing countries because this source let these economies to raise their finance successfully through this way. However, the share of this source of external financing is 39% of the total which is one of the finest ratios among other sources. As per facts and figures, developing Asia is one of the major recipients of FDI in its concerned region, and it is reflecting amazing results of the rise of FDI flows from 25% to 33% – from 2016 to 2017. From different types of economies, the share of FDI flows of the developed economies is declined by 50% on an overall basis from the total”. UNCTAD (2018).*

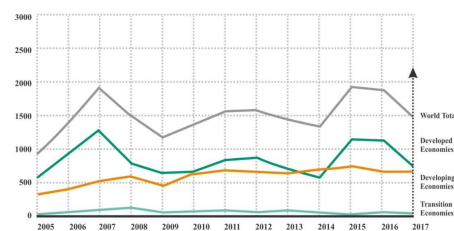
The facts and figures related to FDI inflows per described economies are reflected in Figure 2.1. The dominance in the statistics is associated with the developing

countries at most as these countries reflect stability in their outcomes compared to the other comparative group of countries. As per the graphical description of developed countries, their inflows have more fluctuations relative to the other countries. The less variation in FDI inflows authenticates more growth options in the developing countries than the other (Flora and Agrawal, 2017). The growth is always contingent on the efficient utilization of resources (Alam and Sumon, 2020; Ali et al., 2021; Barra et al., 2020; Shahbaz et al., 2017).

The efficient utilization of resources can create a competitive advantage for the economies which are making it sure. There are different views and understandings about the FDI stance, and somehow, it was regarded as a portfolio investment before the 1950s (Nayak and Choudhury, 2014). The relative importance of FDI for all kinds of economies is indispensable (Flora and Agrawal, 2017).

Figure 2.1 reflects the flow chart of FDI inflows of the world total, developed, developing, and transition economies.

Figure 2.1: FDI Inflows, Overall and Group Wise Detail  
Source: UNCTAD (2018), (Data: 2005-2017, Amount in Billions of US\$)



In the surge of deployment of FDI, there is an involvement of different purports that are different due to varying circumstances of the host and home country. However, the major complexity is identifying marginal cost and evaluating break-even points where the countries could do their cost-benefit analysis (Frenkel et al., 2004). The

marginal costing and standardization by collaborating with the customs around the globe can be a significant understanding in gaining economies of scale and fulfilling procedures according to the international standards (Herzer and Klasen, 2008; Tiwari and Mutascu, 2011; Torissi, 1985).

The illumination of FDI is best depicted in the theorem of Dunning (1988) which states that three icons have major concerns on the way of FDI. These significant concerns are regarded as OLI – “ownership, location and internationalization” – contributing dominantly to FDI circumstances. This paradigm explains that ownership does matter because the host country's proprietary stance will do the possible to succeed in the targeted investment. Whereas location is concerned, even after the Dunning (1988) paradigm, many other types of research also confirm location's importance in the degree of FDI (Habibullah and Eng, 2006; Pagano, 1993; Shahbaz et al., 2017; Tun et al., 2012).

The competitive location edges result in the utilization of specific land, environment, up-graded technology, local skilled and technical labour, infrastructure, and other distinguished resources, which can significantly contribute to the way of the success of FDI. The concern of internationalization having attachment with FDI can be cited as an icon for gaining marginal insight into cost-effectivity, international exposure, the impact of significance of globalization, termed response of international standards according to host and home country. The internationalization issue and its relative importance can be cited in the theoretical and empirical literature relevant to FDI (Frenkel et al., 2004; Lardy, 1995; Zhao and Du, 2007).

The literature also shows the commercialization of FDI in bringing economic prosperity and economies of scale. The widespread phenomenon about FDI is that it has logical and scientific effects in bringing growth options and economic sovereignty to the host and home country (Asongu and Nwachukwu, 2017; Mankiw et al., 1992; Mehic et al., 2013; Moosa and Cardak, 2006).

By taking the panel data of 20 years of developing countries, Borensztein et al. (1998) conducted a study to emulate the impact of FDI on economic growth. The findings conclude that the FDI inflows are the best source of technology transformation, human resources, and the other aspects related to the investment. However, FDI plays

a vital role in bringing prosperity to the host and investing countries. However, the globalization theory has now eliminated the distinguishing element of location advantage as the rapid mean of transportation and innovation in technology have made it possible to attain the competitive advantage from the place where it is considered distinguished (Porter, 1998).

By using the panel data of 11 different economies, Zhang (2001a) conducted a comprehensive study to evaluate the impact of FDI on attaining economic growth. This study introduces new iconic variables that are the first in investigating the relationship between the under consideration issue. This study shows that the FDI attraction is not a number game but depends upon certain factors that should be accounted for in attracting the FDI inflows in a particular country. However, the factors that help the economies to attract FDI vary from country to country because every country has its competitive edge that the countries should acknowledge and prescribe. On a general note, these factors are commonly liberal trade policies, appropriate human capital, and a controlled environment for investment opportunities.

In the era of financial crises, the developing economies adopted FDI to gain inward investment to stabilize the concerned economies and boost economic well-being at the bottom line (Loungani and Razin, 2001). The endorsement of the findings of this study can be cited in the study of Ericsson and Irandoust (2001), which confirms the bidirectional causality in the under consideration issue – FDI and growth. However, the implications are available in the study that demonstrates the stimulating factors for each other and stamps the emergence of both these issues for the well-being of the considered economies. Literature depicts the mixed impact of the FDI-growth relationship. The diverse influence is due to the process's heterogeneity and effects. To examine the varied effect, Nair-Reichert and Weinhold (2001) conducted a study and concluded that the results of the FDI-growth option are heterogeneous<sup>10</sup>.

By analyzing over a decade of panel data Zhang (2001b) conducted a study to determine the impact of FDI on the economy. This study differentiates the data set into different regions, and these regions were analyzed on separate grounds. The findings of

<sup>10</sup> Heterogeneous or heterogeneity means the circumstances that are having diversity in their aspects and includes different stages that are the necessary elements to be accounted for (Higgins and Thompson, 2002).

this study suggest a positive and significant impact of FDI on the economy in the regions, particularly the coastal regions. As the inland regions are concerned, those do not depict the desired results compared to the coastal regions.

By keeping in view, the concentration of developing countries in the advancement of growth opportunities, Sadik and Bolbol (2001) conducted a study to find out the influence of FDI on growth, particularly in Arab countries. The concluding remarks of this study reflect the positive sway of FDI on economic growth. Still, the FDI is considerable in technology transformation, exchange of human resources, and better investment opportunities. However, the suggestions of this research comprised the information to enhance technological aspects of Arab countries along with capacity building in terms of factors of productivity and investment opportunities.

Developing countries are regarded as those countries which are struggling with growth options. Having said information about these countries, Makki and Somwaru (2004) evaluated whether FDI is causing economic growth in these countries or not? However, for attaining the aim of this study, the impact of FDI in attracting economic growth is determined along with several other factors – mobility of savings, human capital mobilization and appropriate trade facilitation, etc. by keeping all these circumstances into consideration, this study concludes that there is a positive and significant relationship between FDI and growth options. Still, this growth option can be attained if the mobilization of concerned factors can be confirmed.

The host country of FDI can get better opportunities to enhance their infrastructure, investment opportunities, trade options, and technology transfer (Scott-Kennel, 2004). According to Scott-Kennel (2004), the host country can attain competitive advantages in FDI inflows. These FDI inflows can bring better results for developing and developed economies. However, the local firms can be gained the most impact of FDI in the under consideration countries, and hence, economic prosperity can be achieved.

The ultimate scenario about the FDI growth relationship is gaining much attention from the researchers, and the community is invoking the conclusion about this varied situation. With the changing environment around the globe and the changing circumstances in the socio-cultural environment, there are various shifts in the

economies to behave according to these changing situations. The bifurcation in the economies depends on the economies' circumstances: political, economic, or cultural. According to these circumstances, the economies' identification can occur (Azman-Saini et al., 2010a; Adams, 2009; Belloumi, 2014; Blackburn et al., 2005; Herrera-Echeverri et al., 2014; Lardy, 1995; Li and Liu, 2005; Wang, 2009).

In continuation of the earlier scenario, Li and Liu (2005) analyzed this situation by taking a comprehensive and large data set of 84 countries for approximately three decades to conclude FDI and growth phenomena. According to this study, certain factors are associated with the impact of FDI on growth options. However, human capital, infrastructure, and technological advancement are the contingent factors that significantly consider the relationship between FDI and economic growth. However, the findings of this study conclude that there is a positive and significant relationship between FDI and economic growth. Still, if the country lacks technological advancement and related areas, these countries have an empirically negative relationship in all the mulls cited earlier.

The relationship between FDI and economic growth was studied by Lensink and Morrissey (2006). The basic assumption behind this study was that the deviation in the FDI brings negative impacts on the growth options of the economy. By doing the panel data analysis, the findings of this study are confined to the basic assumption, which shows that the volatility in the FDI is contingent on the negative impacts on the growth of an economy and vice versa. FDI has different determining factors that may become the cause of its attraction. The smooth functioning of FDI depends on many factors determined by Moosa and Cardak (2006). This study concludes the issue by taking the cross-section data of 140 countries. The concluding remarks of this study conclude that the appropriate research and development, human capital, and better utilization of infrastructure are the standard and key determinants in attracting FDI. However, other factors undoubtedly influence FDI and growth, but the varied impacts are ascertained.

By taking the time series data of different countries for approximately three decades, Chowdhury and Mavrotas (2006) conducted a study to approve or disapprove of the existing phenomena of the positive relationship between FDI and economic growth. By applying innovative econometric techniques, this study concluded that

some counties are included in the sample database that approves this existing phenomenon. Still, some counties are not fully absorbing this particular concept. However, this study approves the functionality of FDI-growth interrelationship at the bottom line on an overall basis.

By taking the provincial level panel data of Chinese provinces, Yao (2006) conducted a study to evaluate the impact of exports and FDI on China's growth. The findings of this study comprised the distinguished results that the tuned facts have a significant and positive impact on the economy boost up. However, exports of China will attract other countries to invest, and direct investment in China will flourish the local Chinese industry. Moreover, China's considerable points are to focus on the concluded points of this study to attain the economies of scale and persistent growth in their economy.

FDI and economic growth inter-relationship were studied by Zhao and Du (2007) by taking the time series data of China. By applying empirical econometric techniques, the findings suggest a significant contribution of FDI in attaining the growth in the case of China. However, in support of the market hypothesis, this study argued that the market size is an essential factor in attracting FDI. As a result, economic progress can be attained in the case of China. The study of Herzer and Klasen (2008) disapproves of the general concept of a positive and significant relationship between FDI and growth because the results of this study reflect that in many developing countries, this concept didn't suit best and does not approve of the concept of positive gesture FDI-growth inter-relationship. This study also authorizes that some countries are intended to confirm the existing phenomena, but this confirmation is available in short and long-run relationships.

An investigation of SSA<sup>11</sup> countries was conducted by Adams (2009) by taking the panel data related to these countries. This study reflected the gradual effects of FDI on economic growth because the study results reveal the initial effects related to FDI on growth options. Still, after the gradual initialization and incremental optimization, its effects showed a spill-over towards the positive vibes related to the under consideration issue. However, there are some contingent effects associated with this

<sup>11</sup> Sub-Saharan Africa

study's theme. These themes are Govt. positive intervention, the contribution from the local body, and strong and positive political scenarios.

Approximately the panel data of one decade was analyzed by Wang (2009) to evaluate the impact of sector-wise FDI and growth options in Asian countries. The agenda points of this study were the involvement of the manufacturing sector in introducing FDI in Asian countries. Findings reflect a positive effect of FDI inflows on the host countries. However, as the contribution of non-manufacturing organizations/sectors is concerned, it is not reflecting the positive and significant contribution in bringing the growth in the selected Asian countries. However, Asian countries should focus on manufacturing FDI to attract growth at the bottom line.

On an individual level, capacity-building analysis of economies spurs different viewpoints about their lacking and competitive edges. Meyer and Sinani (2009) did a Meta-analysis on the issue of FDI and growth inter-relationship. This study came up with the evaluated factors that the FDI attraction and local working capacity are based on the performance of local firms. It is a matter of worth how the local firms are working and are intended to work in the environment provided by the country's stakeholders. However, the conclusion of this research is based on the fact-finding, and these facts are; the countries that are putting their attention on local industry development, infrastructure development, human capital management, and reverence for the technology adoption and transformation were regarded as the ideal economies to take advantage of FDI in making their economy strong.

The effect of economic freedom was tested by Azman-Saini et al. (2010a) by considering the relationship between FDI and economic growth in a panel of 85 countries. The empirical findings of this study suggest that there is no direct linkage between FDI and economic growth. Still, if there is an involvement of economic freedom and institutional quality, then there is a positive and significant relationship between the under consideration phenomena. The mixed influence of FDI in minting and enhancing the FDI can be cited in the study of Alfaro et al. (2010), which states that the implications of FDI showed variation as per change in the type of economy and its operations. This distinction among economies was based on their income level and financial capacity.

The widespread phenomena of FDI and economic growth relationship were concluded by Azman-Saini et al. (2010b) by taking the involvement of financial institutions. The findings of this study suggest that the FDI didn't perform significantly until or unless the financial institutions didn't perform their role in boosting the economy. However, there is a threshold impact of FDI on growth, but this effect can stabilize impacts if the financial intuition's performance can be monitored and regulated. Similar to this case, the study of Azman-Saini and Smith (2011) considered financial institutions – the insurance sector – as a key motivator in the mobilization of savings and thus stamped the growth options. A large data set of developing and developed countries was taken. By doing a strong econometric analysis, the findings of this study conclude that the financial sector/ insurance companies are playing a vital role in the confirmation of the finance-growth relationship.

Tiwari and Mutascu (2011) conducted a study to determine the relationship between foreign direct investment and economic growth. By applying different econometric techniques, the findings suggest a positive and significant impact of FDI on economic growth in ASIAN countries. The flow of international capital has increased with the help of FDI around the globe. The economies are taking advantage of converting their status from developing to emerging and emerging to developed economies. To consider this motive, Shahbaz et al. (2011) investigated by seeing the emergence to conclude the agenda of FDI-led growth and finance-led growth connection. This study performed different advanced analyses by taking the time series data for approximately three decades. It concluded that the issues of financial integration and stability are above board and have significant impeding while discussing the growth of an economy. However, the consideration of FDI is also not negligible, but in comparison to financial intervention, the role of FDI is meager. Hence the vote of confidence for the conclusion of growth is cast in favor of financial development.

By taking the panel data of 164 countries, Buchanan et al. (2012) conducted a study to determine the relationship between institutional quality and FDI. Applying different econometric techniques to attain this study's results suggests a positive and significant relationship between institutional quality and FDI. The economies with better focus and administrative criteria related to the institutions are more likely to be

stable than those that didn't give supreme importance to the financial intuitions while considering FDI and economic growth. However, the results showed more robustness in the countries regarded as low-income countries. Moreover, the suggestions of this study include that the economies that want to attract more FDI and need growth at the bottom line,

Institutional quality was linked with FDI attraction by Tun et al. (2012). This study examines the role of institutions or MNCs in attracting FDI by taking the large panel data set of 77 countries. The highlights of this study show that there are certain factors that a country should have to attract the FDI, and as a result, economic progress can be attained. The panel data analysis of this study shows that the factors contributing to attaining the FDI are institutional quality, human capital performance, productivity management, export orientation, mobilization of savings, etc. However, there is an opposition to the general concept, which reflects that the market size is not a significant factor in contributing the FDI attainment.

In line with the empirical findings of the earlier research of Blonigen (2005), Wang (2009), Azman-Saini et al. (2010a, b), and Azman-Saini and Smith (2011), the study of Shahbaz and Rahman (2012) concluded their findings of the subject matter. It stated a significant and positive relationship between FDI and growth. However, this study provided the prescription of certain other factors that can contribute well to developing economies' up-lift. Hence, keen implantation is suggested at the bottom line. Before the global financial crisis, the ease of doing work was estimated in the developing countries to attract FDI. However, countries with appropriate working conditions, capacity building, and investment attraction are the main receivers of FDI inflows (Bayraktar, 2013).

By taking the panel data for approximately two decades, Inekwe (2013) conducted a study to determine the empirical binding between FDI and economic growth. This study utilized modern econometrics techniques to do advanced analysis related to the under consideration issue. The findings suggest a positive association between FDI and growth, most specifically in the case of Nigeria. However, the key agenda point of this study includes the involvement of the manufacturing sector in the attraction of FDI and, as a result, economic growth can be attained. In contrast to Inekwe's (2013) study, Kurtishi-Kastrati (2013) narrated that the impact of FDI on the

host country is contingent on the host country's absorptive capacity. This study is not an abnegator of the exciting benefits associated with the FDI, but these benefits cannot be attained automatically. The backdrop of these benefits is attributed to a considerable extent of an infrastructure – any kind – that can achieve the desired results in the existing circumstances. FDI and economic growth relationship in China were studied by Chaudhry et al. (2013). The findings of this study conclude that there is a highly positive and significant relationship between FDI and economic growth. However, the countries should focus on the appropriate measures to attract FDI to attain economic growth in their countries.

By considering different southeast European countries, Mehic et al. (2013) conducted an empirical examination by implementing advanced statistical techniques to gain insight into FDI and growth issues. The concluding remarks of this research suggest that the FDI is statistically significant in connection with growth. However, certain factors contribute to the advancement of growth, and these factors may vary from one southeast European country to another.

The financial system of BRIC<sup>12</sup> countries was evaluated by Kaur et al. (2013) to analyze its impact on FDI inflows. However, domestic credit to the private sector, banking transition upgrading, and advancement in the banking system can be the key motivators in attracting the FDI, most specifically in BRIC countries. Panel data for the 50 African countries were evaluated by Gui-Diby (2014) to conclude the relationship between FDI and economic growth in terms of different threads of time frame. After applying different econometric techniques, the findings of this study reflect a positive and highly significant relationship between the destined issues – FDI nexus growth. However, this study also concluded that there is a threshold effect available in this particular situation because, before a certain period, this phenomenon – FDI nexus – growth is adverse. After all, before 1995, the results of FDI impacting growth options are adverse and are negative in their signs and symbols.

Different countries took as a sample based on their income level, and a panel data analysis was made on 87 countries by Herrera-Echeverri et al. (2014). This study focused on the vision of how FDI, entrepreneurship, and appropriate management of

<sup>12</sup> Brazil, Russia, India and China these countries are regarded as the struggling economies that are struggling to be transitioned from developing to the developed stage.

the institutions/ quality can be analyzed to evaluate the economic betterment of the under consideration countries. However, this analysis revealed a significant and positive relationship between FDI, entrepreneurship, and growth options. Moreover, countries with more incubation capacity of the intuitions are more inclined towards growth and economic sovereignty. Thus the countries should focus on institutional quality to attract the FDI. As a result, the entrepreneurial opportunities will be enhanced, and growth can be stamped at the bottom line.

Belloumi (2014) confirms the authenticity of the relationship between FDI and economic growth by taking the time series data for approximately three decades. The findings conclude a significant and positive bounding between FDI to growth in both the long and short run. However, the economies like Tunisia should focus on the points related to FDI and play the number game to attract FDI inflows to their country. This will stabilize their economy and work in technology transformation, employment opportunities, and local industry development. However, better infrastructure is also endorsed for economic well-being.

To conclude the diverse influence of FDI and growth options phenomena, Iamsiraroj and Ulubasoglu (2015) conducted a comprehensive study by taking the panel data of 140 countries over approximately four decades. The findings suggest a positive and significant relationship between FDI and economic growth. However, there is a global impact of FDI on economic growth cited in developing countries. Moreover, trade openness and reduction in trade barriers may bring more investment opportunities to developing countries and vice versa. The decision-makers of the countries should focus on the expedition of flows of cash in terms of international cash flows so that the growth options can be stamped. The relationship between FDI and economic growth was evaluated by Pegkas (2015). This study applied panel data analysis techniques to determine the relationship between the under-consideration issues. However, the findings confirm a strong and significant impact of FDI in attaining growth. Moreover, this study also confirms the presence of long-run relationships in the targeted countries. Trade openness is also shown positive and significant impacts in achieving economic growth.

A country's economic growth is contingent on foreign direct investment (Iamsiraroj, 2016). According to this study, economic development relies not only on

the flourishing of FDI but on certain other circumstances that directly affect economic growth and FDI. These factors are a friendly environment for investment, a controlled trade environment, etc. However, this study concluded a bi-directional causality between the FDI-Growth nexus.

By considering SSA countries as a base, Agbloyor et al. (2016) conducted a study to determine the potential relationship between FDI and economic growth. By applying different econometric techniques, the findings of this study suggest that there is no significant relationship between FDI and growth options. However, this relationship is contingent on the quality and prescribing criteria of intuitions/ financial institutions. The institutions are of primary importance in bringing growth in SSA countries. Moreover, the economies that is well equipped with natural resources and managed natural resources are directly inclined to economic growth and vice versa.

By taking the panel data of the countries,<sup>13</sup> Zghidi et al. (2016) evaluated the relationship between FDI and economic growth. This study implied different advanced econometric techniques to determine the influence of FDI in attaining economic growth. However, the focusing point in this study was the economic freedom that was considered the key tycoon in achieving the growth at the bottom line. Moreover, the findings suggest that the positive and significant relationship between economic freedom and FDI can benefit multinational corporations.

Human capital and political stability are the two leading indicators to evaluate the strength of an economy. These two contributing factors are the sub-elements of FDI attraction and cash inflows. The country's sovereignty and stability are contingent on these options and other related areas (Desbordes and Wei, 2017; Elkomy et al., 2016; Hagan and Amoah, 2019; Inekwe, 2013; Kar et al., 2011; Yao, 2006).

By considering the panel data of 61 economies, Elkomy et al. (2016) adduce the economic progression by keeping the inflow of foreign direct investment. Human, political and technological factors bring under consideration to attain authentic insight into the FDI-growth relationship. This study is of considerable importance due to the unconventional results about the FDI's impact on the growth of the economies. The un-

<sup>13</sup> Tunisia, Morocco, Algeria and Egypt were the countries of North Africa that were included in this study.

conventional effects include the disapproval of FDI's positive effect on the growth of ten transition economies. However, the mixed results of this study have a consensus point that the appropriate management and up-gradation of human capital is a key to FDI attraction in all the economies that were considered in this particular research. The threshold effect can be cited in the empirical findings of this study.

Institutional quality and the comprehensive threshold analysis were conducted by Jude and Leveuge (2017) to analyze their impact on terms of FDI attraction in the host countries. The significance of this research lies in evaluating stages where the institutional quality attracts the FDI, and as a result of these, economic growth can be attained. The findings confirm the circumstances of marginal FDI can bring prosperity in terms of growth options. Different types of economies were studied by Alvarado et al. (2017), which took low, middle, and high-income economies to understand and conclude the impact of FDI in terms of growth options. This study took overall economic situations as well as the regional level data. The parametric implications of FDI on economic growth differ while considering the regional or general economic circumstances. The FDI impact on economic growth is not regarded as significant in regional analysis but significant in overall economic conditions.

The performance of different sectors registered in the financial institutions of different economies is also having significant relevance in the investment decision making of the foreign countries because the performance of sectors of any economy may vary from time to time and from circumstance to circumstance, and these sectors purely depict the trend of doing work of an economy. These trends may be conditional or cyclic but are of significant importance in decision-making for the economies where they have to go. The performance of the various sectors in an economy advocates the concept of diversification because the basic ideology of diversification is based on the common know factor "don't put all eggs in one basket." This common factor depicts that one sector's performance in an economy may serve as a bailout process for the many other relevant areas of interest. However, the performance of sectors operational in an economy can motivate foreign investment in the host country (Alam et al., 2016; Asongu and Nwachukwu, 2017; Deidda, 2006; Herrera-Echeverri et al., 2014; Islam, 2018; Jianguo et al., 2022; Jones, 2007; Jude and Leveuge, 2017; Lardy, 1995; Meyer and Sinani, 2009; Mehic et al., 2013; Muye and Muye, 2017).



By taking the data of OECD and non-OECD countries for approximately two decades, Economou et al. (2017) highlighted the central theme of FDI attraction. According to this study, an economy's main attraction points are infrastructure, economic stability, security conditions, and skilled labor. However, in attaining the advantage of FDI inflows, the economies should focus on the earlier mentioned points to get a competitive edge over the other economies and gain economies of scale. The endorsement of this particular issue can be cited in the study of Flora and Agrawal (2017), which confirms the emergence of FDI attraction in attaining growth.

Saini and Singhania (2018) conducted a study to determine FDI determinants in developing and developed countries. By applying different econometric and statistical techniques, the findings of this study suggest that certain factors based on economic conditions directly attract foreign direct investment in developing and developed countries. The implications of this study suggest that the Govt. should focus on skill development, facilitation in the production system, and appropriate policymaking to enable an economy to attract FDI in a more significant manner.

Nkoa (2018) conducted a study by taking 52 African countries by considering financial development as a tycoon for FDI facilitation. By applying different econometric techniques, the findings of this study suggest that there are certain factors – domestic credit to the private sector, financial liberalization, etc. – that contribute toward financial development, and better financial policies and criteria are served as a key attraction of FDI in case of African countries. However, the concluding remarks of this study suggest that low-income countries should focus on their economic well-being. For their endorsement, there is an appropriate need for policymaking and its implementation so that the positive spillovers of FDI may attract. However, trade openness and human capital may be the defining figures for attaining FDI and economic growth.

Financial markets/institutions' impact on attracting FDI was studied by Hagan and Amoah (2019), which considered the earlier mentioned phenomena in attaining growth, particularly in Africa. The findings of this study suggest a positive and significant impact of FDI in achieving growth, but that is contingent on the progress of financial institutions. How efficiently the financial institutions are working will determine the level of attraction of FDI, and as a result, the growth can be evaluated on

logical grounds. Moreover, the African countries should monitor the working of financial institutions and liberalize the policies of these intuitions so that economic growth can be attained.

Raza et al. (2021) conducted a comprehensive study to determine the relationship between FDI and economic growth by keeping the lens of appropriate governance by considering the OECD countries. This study applied different econometric models and their pre-testing criteria and concluded that there is a significant impact of FDI in attracting the growth options in the OECD countries. Furthermore, the findings of this study also suggest the numerous points that create a substantial score in attracting FDI and the attainment of growth options. The human capital and research and development expenditures are also endorsed for the betterment of the economy. These points are flagged stability in the political circumstances, a balanced system of accountability, and appropriate checks and balances.

The managerial impacts of FDI on growth cannot be denied up to a considerable level. It is not a meager phenomenon but a greater narrative to stamp the growth in different economies (Kurtishi-Kastrati, 2013; Economou et al., 2017). However, the subject matter impacts are negligible, but a mixed influence of these targeted areas prevails. The existing literature depicts this issue's ornament and certain elements/ areas that do not confirm its emergence. The majority of the studies showed the authentication stamp of FDI on the growth of the different economies (Economou et al., 2017; Jude and Leveigue, 2017; Kurtishi-Kastrati, 2013; Neanidis, 2019; Shahbaz et al., 2011; Tiwari and Mutascu, 2011; Ulubasoglu, 2015) but there are different studies like Herzer and Klasen (2008) and Elkomy et al. (2016) which are narrating the negative impact of FDI on the subject matter. The argumentation behind this is the dominance of the host country over the home country in the manner of operations and other relevant issues. However, the lack of consensus related to the concerned phenomena can be cited in the current body of literature.

2.10.4. Comparative Analysis of Literature of FDI & Economic Growth Nexus

The comparative view of the literature mentioned above is depicted in Table 2.3 to overview the bottom lines of the considered studies in the literature.

Table 2.3: Comparative Analysis of the Literature of FDI and Economic Growth Nexus

Empirical Study	Time Frame	Country/Countries	Methodology	Major Findings
<b>Major Studies on FDI-Growth Nexus</b>				
		101 (78 Developing, 23 Developed)	Regression Analysis	FORDI → EGRT Only in developing countries
Blomstrom et al. (1994).	1960-1985	China	Panel Cross-Section	FORDI → EGRT
Zhang (2001b)	1984-1998	(Chinese Provinces)	Estimation	FORDI → EGRT
Nair-Reichert and Weinhold (2001).	1971-1995	24 Developing Countries	MFR Estimator	Causal relationship between FORDI and EGRT
Omran and Bolbol (2003).	1975-1999	17 Arab Countries	Regression Analysis, Granger Causality	FORDI → EGRT
Makki and Somwaru (2004)	1971-1980, 1981-1990 and 1991-2000.	66 Developing Countries	SUR and TSLS	FORDI → EGRT
Li and Liu (2005)	1970-1999	84 Countries	Single and Simultaneous Equation System	Significant endogenous relationship FORDI and EGRT
Zhao and Du (2007)	1985-2003	China	VAR Model and Causality Tests	FORDI ↔ EGRT
Wang (2009)	1987-1997	12 Asian Economies	Decomposition Analysis	Heterogeneous effect of FORDI on EGRT
Pradhan (2010)	1970-2007	India	Johansen's Cointegration, ECM	FORDI ↔ EGRT

Table 2.3 Continued

Tiwari and Mutascu (2011)	1986-2008	23 Asian Countries	Fixed and Random Effect Model ARDL	FORDI ↔ EGRT
Shahbaz et al. (2011)	1975-2008	Portugal	Approach to Co-integration, ECM	FORDI → EGRT
Tun et al. (2012)	1981-2005	77 Countries	GMM Estimator ARDL	Institutional quality helps in getting a significant relationship between FORDI and EGRT.
Chaudhry et al. (2013)	1985-2009	China	Approach to Co-integration, ECM	FORDI → EGRT
Mehic et al. (2013).	1998-2007	7 Transition Countries of Southeast Europe	Panel OLS, Granger Causality Test	FORDI → EGRT
Gui-Diby (2014)	1980-2009	50 African Countries	GMM Method	FORDI → EGR up to 1995-2009, the impact is (+), and before this period, the relationship between them is (-).
Elkomy et al. (2016)	1989-2013	61 transition and Developing Countries	Regression Analysis	Mix results, in some countries, the relationship is significant, and in some, it is insignificant
Zghidi et al. (2016)	1980-2013	4 North African Countries	GMM Approach	FORDI → EGRT
Economou et al. (2017)	1980-2012	24 OECD and 22 Non-OECD Countries	"Arellano-Bover/Blundell-Bond" Dynamic Panel Data Estimations	FORDI → EGRT
Nkoa (2018)	1995-2015	52 African Countries	GMM System Estimation	FDEV → FORDI FORDI → EGRT