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Financial development and foreign direct investment nexus: A systematic review of literature

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ABSTRACT

In this study, we review the literature to find how financial development attracts foreign direct investments for a sustainable real sector development of a country. The area is least focused on literature. Thus, we do not limit our search and review to any time or database, or journal category. We find the theoretical logic and empirical evidence so far available in the literature. Our review finds that the development of a country's financial sector is one of the most important attractors of FDIs. Theoretically, financial sector development works as a symbol of trust and goodness to the new potential investors and a good resource allocation channel for the existing investors. However, very few researchers found that FDIs are more prone to countries with a low developed financial system which may happen due to the presence of risk-taker foreign investors and risk-averse domestic entrepreneurs.

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Introduction

A country's financial system has been regarded as a crucial factor for sustainable economic advancement (Khan, Islam, & Akbar, 2020; Liu, Islam, Khan, Md Ismail, & Pervaiz, 2020). This system creates the flows of money and keeps the system working (Mollah Aminul Islam, Khan, Popp, Sroka, & Oláh, 2020). The financial sector of an economy is broadly comprised of financial institutions and financial markets (Mollah Aminul Islam, Hassan, & Rana, 2019; Mollah Aminul Islam et al., 2018). Whereas financial institutions mean all institutions providing financial services (including financial advice, deposit, and loan) including banks, insurance firms, pension funds, mutual funds, etc., financial market broadly represents the markets that involve exchanges of financial assets e.g., stocks, bonds and notes (Fan, Hossain, Islam, & Yahia, 2018). The financial system makes the economy capable to mobilize savings and properly allocate resources, facilitate risk diversification, trading, hedging, exert corporate control and facilitate exchanges of goods and services (Fan et al., 2018; Levine, 1997).

A pretty bunch of studies has been conducted to investigate the impact of the financial system on economic speed (for example, Ali, Rashid, & Islam, 2010; Bittencourt, 2012; Levine, 2005; Liu et al., 2020; Nyasha & Odhiambo, 2018). Although most of the researchers contended on the positivity of the finance-growth relationship, some seminal researches identified different dimensions, especially non-linearity in the relations (Rousseau & Wachtel, 2011). According to the school of thought, finance leads to growth while the financial system of a country is developed up to a threshold level (Hasan, Shiming, Islam, & Hossain, 2020; Khan et al.,

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2020). Further development beyond the threshold level by financial liberalization may induce excessive inflation and lead the country to a financial crisis. So, it can be expected that proper liberalization and development of the financial system while maintaining the threshold level will lead an economy to higher growth (Sultanuzzaman, Fan, Mohamued, Hossain, & Islam, 2019).

While finance is acknowledged as a growth factor (Li, Pervaiz, Asif Khan, Ur Rehman, & Oláh, 2019), foreign direct investment (FDI) is also recognized as one of the most important factors for the economy (Mollah Aminul Islam et al., 2019; Yahia, Haiyun, Khan, Shah, & Islam, 2018). Many countries reform their policies to attract more and more FDI from abroad as FDIs come not only with funds but also with foreign advanced technologies, technical know-how, advanced human skills and better education opportunities. The necessity of FDI to speed up the real sector growth is well recognized by researchers and policymakers. Many researchers found that to gain real benefit from FDI can be gained when the financial system of a country is developed (Alfaro, Chanda, Kalemli-Ozcan, & Sayek, 2004; Mahmood, Furqan, & Bagais, 2018). Some others find financial development as a precondition for the host country to gain on the technological diffusion associated with economic growth for economic growth (Hermes & Lensink, 2003; Mollah Aminul Islam, Liu, Khan, Islam, & Sultanuzzaman, 2021).

Given all the benefits and growth opportunities of financial development (FD) and FDIs to the real sector economy, these two factors (FD and FDI) can induce each other, which can further stimulate the speed of the economy. Therefore, some researchers have addressed the issues, how the financial system development of a country can attract FDI from abroad and how the increased inflow of FDIs can enhance financial development. Although the volume of publications in these regards is not voluminous in comparison works that investigated the relations from financial development and FDI to economic growth and even the studies which considered financial system development as a channel to reveal the benefits of FDI for economic growth. The studies investigated the direct relations between FD and FDI from different aspects using different methodologies on different country samples. Now, it is high time to synthesize or combine the findings relevant to the direct relations between FD and FDI to give future researchers a clear idea of the issues and policymakers.

The current endeavor is aimed to reveal the directions of the relationships, the channels or mechanisms which enhance the impact of one to another and their theoretical rationale. As the number of studies revealing the direct relation between FD and FDI is not vast, a subjective approach has been applied to select the studies for this review rather than an objective approach. Moreover, due to a low number of studies found, the search was not limited to any specific database or time limit, rather we searched as large as possible and included the papers found which addressed the direct relationships between FD and FDI from any direction.

Our study is novel as it presents an integrated definition of financial development (FD). Secondly, it is the first attempt to review the publications on direct relationships between FD and FDI. Thirdly, the current study presents a simple and comprehensive conceptual framework for FD-FDI relations. Finally, the study is expected to gain a great readership due to summarizing and synthesizing the studies on FD-FDI direct impacts.

The rest of the paper is organized such as section 3 presents comprehensive definitions of the key terms under discussion, section 4 describes the detailed methodology which includes methods for data identification, inclusion and exclusion criteria, and the screening methodology. Section 5 and 6 presents the theoretical foundation and empirical pieces of evidence for FDI-FD relations and section 7 concludes the study.

Literature Review

Theoretical and Conceptual Background

Financial Development

Financial development positively contributes to the ratio of a country's financial assets to GDP (Moore, 1986; Shaw, 1973). Scholars argue that financial development (FD) is represented by increasing the provision of financial goods and services. More generally, this factor helps to measure the actual extent of the financial system of the country. Precisely, FD represents the health of the financial system by focusing on people's accessibility to the financial asset to GDP ratio and its operational efficiency. Therefore, the extent of financial development is to measure the goodness of the financial system of the country. According to Levine (2005), "Financial development occurs when financial instruments, markets, and intermediaries ameliorate – though do not necessarily eliminate – the effects of information, enforcement, and transaction costs and therefore do a correspondingly better job at providing the five financial functions. Thus, financial development involves improvements in the (i) production of ex-ante information about possible investments, (ii) monitoring of investments and implementation of corporate governance, (iii) trading, diversification, and management of risk, (iv) mobilization and pooling of savings, and (v) exchange of goods and services." The term "Financial Deepening" measures a similar theme and functionality and used to measure the same thing in previous literature.

In the financial economics literature, scholars used the term of financial development side by side and often used interchangeably (Anwar & Sun, 2011; Hamdi, Sbia, & Tas, 2014; Trabelsi & Cherif, 2017). Most of the studies found that those factors are influential forces for economic growth (Capolupo, 2018; Durusu-Ciftci, Ispir, & Yetkiner, 2017; Pradhan, Arvin, Hall, & Norman, 2017; Silva, Tabak, Cajueiro, & Fazio, 2017). Moreover, financial development is significant for countries irrespective of their development stages (Adeniyi, Oyinlola, Omisakin, & Egwaikhide, 2015).

Foreign Direct Investment

Generally, the understanding is like receiving foreign funds as investments by the local firms. Most often, some confusions are around the ownership status, amount and extent of investment. To be clearer, any increase of non-resident investors' equity in firm ownership whereas the non-resident ownership exceeds 10% is treated as a foreign direct investment (Hausmann & Fernandez-Arias, 2000). FDI also includes loans and advances received by the local subsidiary or host firm from the parent or investing firm. The purchase of domestic equity, i.e., the ownership (maybe including leverages) by foreign owner, is accounted as FDI. Buying a larger proportion of shares of a firm of which was previously partially owned by the foreign owner is treated as FDI in for of expansion. Moreover, reinvestment of money, purchase machinery and/or technology transfer to the host firm in the form of capital, etc., are also treated as FDIs. (Hausmann & Fernandez-Arias, 2000).

Research and Methodology

This study aims to retrieve and review the papers which addressed direct FD-FDI relationships. The study followed a systematic way to do so. According to Tseng, Islam, Karia, Fauzi, and Afrin (2019), a systematic review of literature should start with appropriately defining the key terms of the study which are used to make the searches of papers. Therefore, a literature review will summarize and synthesize the existing knowledge and identify the knowledge limitations in the existing literature (Tseng et al., 2019). We evaluated guidelines from previous literature (for example, Ashraf, Hasan, Lewis, Hasan, & Ray, 2016; Tseng et al., 2019) for literature review procedure and developed a four-function review process for the current study: i) identification of relevant studies, ii) screening and shorting the identified records, iii) matching with inclusion criteria iv) inclusion and extraction of data. The steps, the procedure and the number of papers revealed in each step are depicted in fig. 1.

Data Identification

The identification of targeted data or paper a critical challenge for a review study. We started our search with the Scopus database of the papers which address the direct relationship between financial development (FD) and foreign direct investment (FDI). But the papers are very scant which leads us to direct a search operation in all other relevant databases like ISI Web of science and google scholar. We did not put a limit on publication year. The keywords we used to search the databases were: 'financial deepening', 'financial development' 'foreign direct investment, 'financial deepening and foreign direct investment', 'financial development and foreign direct investment', 'financial deepening and FDI', 'financial development and FDI'. An initial search operation was limited to the title and the keywords of the papers. The primary search throughout the databases revealed 4678 papers with a combination of the keywords.

Inclusion criteria

The major aim of this study is to review the publications regarding the impact of financial development (FD) on FDI and vice versa. It means the direct impact or relationships on one another. To carry out the objective of our study, we come upon some selection criteria, such as i) titles which reflects the direct relationships to be included only, ii) papers in English will be included and no other language to be considered, iii) the year of publication, while the paper meets criteria (i) will be disregarded and included in the study.

Screening the data

Our initial search for papers resulted in publications including journal articles, conference proceedings, books, and book chapters. We carefully screened the data, keeping in mind the inclusion criteria for our study. We excluded all types of publications other than journal articles that are published in the English language. We conducted the rest screening and shorting in two more steps: a) screening in accordance to title and keywords and b) screening in accordance with the abstract. In step (a) we investigated all titles and keywords and added those which seem to analyze the direct relationship between financial development and FDI. In step (b) we further investigated the paper added in previous step by reading their abstracts and included a full-text reading which gave a sense of the relationship under investigation. The papers finally found that those investigating the direct impact of FD on FDI or vice versa were 20. After removing repeated records, the final number came into 14. The study confirms that the papers are retrieved from reliable sources. Among others, the papers finally selected for the study were published by Elsevier, Emerald, Taylor and Francis, Wiley and Springer.

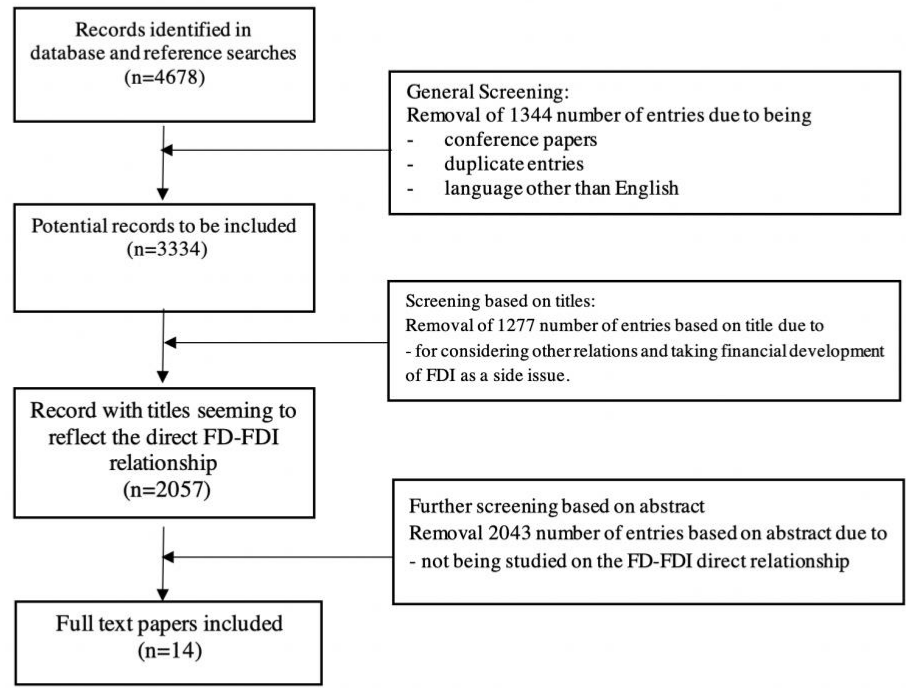

Figure 1: Procedure of inclusion of papers for final review

Findings and Discussion

Financial Development and FDI- theoretical interactions in literature

Effects of Financial development in attracting FDI

In recent decades, academicians and policymakers have paid substantial attention on the financial development as a significant issue for the development of the financial sector (Al Nasser & Gomez, 2009). Researchers claimed that foreign direct investment of a country depends on its financial development. However, this argument is not sufficient to generalize the fact (Mollah Aminul Islam et al., 2018; Nkoa, 2018; Sghaier & Abida, 2013). The inflows of FDI depend on a developed financial procedure with an efficient and transparent cost structure (Al Nasser & Gomez, 2009). Though, a few researchers investigate the direct effect of financial development in attracting FDI, the literature still suffers from enriching evidence. As the study mentioned earlier, the spillover effect of technology and knowledge from foreign country firms will help to upgrade host country firms in terms of new product or idea development and business process re-engineering. To upgrade, host country firms need to acquire new machinery, operational design and value formation process to make a global link. Thus, firms increase their investment in research and development (R&D) projects. Further, this investment is confirmed by Alfaro et al. (2004) that firms need to incur a huge cost to get reap from the spillover effect. Generally, firms can maximize the benefit if investment requirements are fulfilled. However, local firms are suffering from poor funds to finance the changes. It is a matter of national issue and a financial system of a country can ease the problem. Therefore, Alfaro et al. (2004) argue that firms need funds both from external and internal to reduce perceived skills (knowledge) and machinery (technology) gap to obtain maximum spillover effect.

As mentioned earlier, foreign firms compare loan facilities offered by a specific country with their domestic counterparts. This comparison eventually influences the attraction of FDI. Therefore, a smart financial institution1 can take proper action to minimize the cost of capital, smooth financial transition, and offer effective foreign exchange facilities (Jiang & Ma, 2019; Kaur, Yadav, & Gautam, 2013) with safe transection and available information. Thus, FDI inflows are obvious with the developed financial institution. Besides, foreign investors are concern about the stock market of the host country. It is simple to understand that most foreign firms prefer mergers and acquisitions that help their domestic affiliates raise the capital by floating shares from the stock market. So investors will bring funds in the stock market if the host country has well-regulated financial policies for them (Desai, Foley, & Hines Jr, 2006).

A market-friendly attitude depends on a sign of vitality and openness that leads to having a developed and well-functioning financial system (Hanif & Shariff, 2016). To find out the link between the financial depth, foreign direct investment, and the economy's actual output, a considerable amount of literature is present. Most of the study finds the financial system as a facilitator of FDI.

[1] *Financial institutions include banking and nonbanking financial firms, insurance companies, leasing companies, mutual funds and any other savings and credit operators.*

The host country attracts foreign investors in terms of trust and reliability, which is the prime role of financial development. The indicators of a host country having a developed financial system are signals of validity, trade openness and market trustworthiness (Hanif & Shariff, 2016). Likewise, from an investor's perspective, a financial system is having an efficient allocation of financial resources to the promising sectors (Hajilee & Al Nasser, 2015), prompt financial mediators and supply chain. In addition to the money market, the capital market plays a point of attraction to foreign investors. Because multinational firms regularly buy and sell their stocks in the host country to expand their business operations (Hanif & Shariff, 2016).

Effect of FDI to develop the existing financial system

However, the role of FDI in developing a financial system of an economy is well known; the continuous development of the studies and analysis is essential. In an established financial economy, a financial market is divided into institutional and capital market channels. The existing banking facilities describe a reasonable number of the formal institutional channel, but other modes of finance are frequently ignored in existing studies (Kidwell, Blackwell, Sias, & Whidbee, 2016; Sahay et al., 2016). Insurance, mutual funds and pension funds are somehow failing to attract researchers' attention despite having a crucial contribution to FD. Generally, FDI and the stock markets have a regular capital flow to each other in an emerging market. However, researchers found an unclear and inadequate relationship between FDI and the banking sector development (Soumaré & Tchana Tchana, 2015). These findings are opposed by Otchere, Soumaré, and Yourougou (2016). In the opinion of these authors, a raise money supply in the banking channel developments the financial system and hence stimulate FDI. Similarly, FDI causes stock market development because FDI-intensive firms collect external financing by listing stocks in the local stock market. As a result, firms need to have financial intermediaries, and also known as financial development (FD), to operationalize the increased inflow and transection (Otchere et al., 2016). This form of inflow will help to reduce the influence of interest group politics and increase fair competition in the market (R. G. Rajan & Zingales, 2003). Finally, it will protect investors' rights and ensure good governance that ensures financial development in the economy (Soumaré & Tchana Tchana, 2015).

Cross border trade and capital inflows in the money market helps to improve the financial system of a country (R. G. Rajan & Zingales, 2003). These financial mechanisms represent a direct and indirect investment in the form of openness or cross border trade and the flow of capital. Researchers hypothesis that interest groups politically impose some bindings on the dominant firms to preserve their competitive position in the market (Mishkin, 2009; R. G. Rajan & Zingales, 2003). But with the development of trade openness and capital flow, FD can make the level playing field for all firms (Muye & Muye, 2017). Thus, financial development will have positive effects on cross-country transactions. Research showed that institution quality becomes the prime indicator to understand a country's' financial depth from the past decade. According to Lambert and Volpin (2018), an essential catalyst to upgrade the financial system institutions plays a crucial role in a country. In a country, political and legal institutions are beneficial for the entire financial development whereas interest groups influence the financial system (R. G. Rajan & Zingales, 2003). Generally, in a stable legal environment, prospective investors became confident about zero chance of expropriation that motivate them to rely on the stock market for financial expansion (Cherif & Dreger, 2016).

In one most recent study Aibai, Huang, Luo, and Peng (2019) argued that increased inflow of FDI can develop the financial sector of the country. The major means they identified as the money injected via FDI projects directly comes into the financial system of the economy which in general enhances money in circulation in the economy. The FDI projects often require setting up enterprises and expansion of the existing ones. The new enterprises most often require external financing which is to be covered by the financial sector of the host country. This demand pulls also develops the financial system. Sometimes FDIs are directly driven to the financial sector in the form of setting up or merger or acquisition of financial organizations. This form of FDIs benefits the financial sector beyond mere monetary inflow. In such cases, advanced financial management and technical know-how are also driven to the host country which leads to increased financial efficiency. Furthermore, FDIs are generally expected to raise national income level which encourages the savers to save more. The savings flow into the financial system of the country resulting in increased money flow and development of the financial system.

However, the foreign fund inflow in the banking system increases the money supply of the host country that develops the financial system. International operators create more job opportunities and economic activities that make mobilized funds and further develop the system. Similarly, the availability of funds increases when a country has a liberalized capital account with an openness attitude (Desai et al., 2006). Thus, the additional money supply in the form of foreign funds causes the boom to finance depth in banking and stock market channels (Hanif & Shariff, 2016; Mollah Aminul Islam & Rana, 2012).

Financial Development and FDI direct linkages: Empirical Evidence

The success of FDIs is largely dependent on the local factors which make the absorptive capacity of the country whereas financial development works as a great factor. The effect of financial development on economic growth and FDI to economic growth has separately drawn a good number of researchers to investigate the issues. However, the studies investigating the direct linkage between financial development and foreign direct investment are still scarce (Hanif & Shariff, 2016; Hassan, Das, & Islam, 2016). Few numbers of researchers stressed upon to find the direct linkages. This study is to investigate the existing researches, although a few, and combine their findings to come up with a decision about the linkages, the channels and explanations.

A developed financial system can attract foreign direct investment

Al Nasser and Gomez (2009) are among the early authors who analyzed the direct effect of Financial Market development to attract FDIs from abroad. They studied the relationship between 15 Latin American countries from 1978 to 2003. They consider the banking sector and stock market as separate segments of the financial system. Market capitalization to GDP, value traded to GDP and turnover ratio are separately deployed proxies to represent stock market development in previous literature whereas banking sector development is frequently proxied by the ratio of liquid liabilities of the financial sector to GDP, the ratio of total assets of deposit money banks to GDP, and the value of loans made by banking institutions to the private sector as a percent of GDP. The authors found a positive impact of both of the segments to FDI inflows. Their findings imply that FDIs do not flow to the countries having underdeveloped financial systems and weak institutions. Moreover, they find a complementary effect of the stock market and the banking system of a country.

Latin American region is further empirically analyzed by Hajilee and Al Nasser (2015) in the same regard. However, they have taken bound test cointegration approach and Granger causality to find the relationship. They analyzed each country separately and found that in most of the countries of Latin America financial development significantly contributes to attracting inward FDIs (11 out of 14). The relationship is true both in the short and long run. Thus it is evident that a well-functioning financial system represents the capacity of the host country to absorb the positive effects of FDI inflows. Their Granger causality results reveal a bidirectional causal relationship between stock market development and FDI while a unidirectional relationship between FDI and banking sector (from the banking sector development to FDI).

The studies of Al Nasser and Gomez (2009), Hajilee and Al Nasser (2015) studied different aspects of the impact of the financial sector development to attract FDI from foreign nationals and companies. However, these studies did not account for the possible causality. Kaur et al. (2013) took the pressure to study the causal direction. The study covers representative emerging economies where Kaur et al. (2013) concluded that financial sector development significantly impacts attracting foreign direct investment. More specifically, the research on BRIC (Brazil, Russia, India and China) country panel reveal that market capitalization as stock market development proxy and bank size measured by banks liquid liabilities showed a positive and significant impact. An investor who plans to invest in the host country via merger and acquisition is generally more concerned about the development status of the destination country's capital market. Furthermore, the entry and exit barriers for new direct investors are most often removed by the host country's well-functioning stock market, which insures an improved domestic and foreign market linkage. However, surprisingly and unlike other studies on other countries, BRIC countries domestic credit by banking sector as proxies of the banking system is found to negatively influence FDI inflows. Which implies that increasing providence of bank credit is not a facilitator to foreign investors.

The previous studies investigating the impact of financial development on FDI attractiveness, including Kaur et al. (2013), suffer from serious drawbacks as those do not account for the potential endogeneity problem. Moreover, the study of Kaur et al. (2013) does not account for the important controlling variables which have a high potential to influence the relationship.

Some latter studies (for example, Desbordes & Wei, 2017; Nkoa, 2018) tried to address the endogeneity issue along with their innovativeness. Desbordes and Wei (2017) disaggregated the financial development in both source and destination countries and assessed the attractiveness of FDI. Their study is unique in several points. Firstly, they accounted for both of source country financial development (SFD) and destination country financial development (DFD). Secondly, they used country-specific financial development along with sector-specific financial vulnerability. Domestic credit provided by the banking and non-banking sector of the country has been mainly used to proxy for financial development as it represents the debt financing made in the economy in reality (Levine, 2005). Their study also used two time-invariant proxies for financial development - the doing business index and credit information index to check the robustness of their baseline results.

On the other hand, to measure the sector-specific financial vulnerability, they used the external dependence measure developed by R. Rajan and Zingales (1998). Thirdly, their study analyzed the direct and indirect effects of financial development on FDI. Their research reveals that there is a joint impact of source and destination country financial development on FDI inflows. The joint impact of SFD and DFD directly increases the access to external finance on the one hand and on the other hand, indirectly supports the general economic phenomena which are also an important attractor of FDI and hence, directly and indirectly, make the country more attractive to the foreign investors. Moreover, a developed financial system most often encourages domestic investors to invest as the financial system is more capable to meet their demand for external finance which are not most often exhaustive to foreign investors.

Nkoa (2018) accounted for the impact of financial development on FDI attractiveness. His study is novel in two senses in the least. Firstly, he accounted for the endogeneity issue between the two phenomena and secondly, he divided the sample of 52 African economies into two subgroups – 35 economies having no existing financial market and 17 having established financial markets or the stock market. He accounted for money and quasi money, private sector credit to GDP, Gross domestic savings to GDP, the real interest rate to proxy for the banking sector. On the other hand, Market capitalization and stock market value traded to proxy for the stock market for the countries with the existing stock market. He also controlled for human capital, GDP per capita to explain the market size and purchasing power, Domestic investment (GFCF), infrastructure development. In the subsample of countries without the financial market, he found the banking sector variables to significantly and positively affecting FDI. However financial system

deposits showed a negative coefficient. Interestingly, on the other subsample of 17 African countries with financial markets, the market variables are more active than banking proxies. Their market variables are highly significant, whereas the banking variables have a positive but insignificant (except money and quasi money variable) impact on FDI attractiveness.

Despite evidences on the positive direct impact of financial development on FDI few cases are identified that argue a negative association. Hausmann and Fernandez-Arias (2000) based on their study on Latin American countries argue that foreign investors are often attracted to invest in economies that are financially underdeveloped, having a weak institutional base and suffering from original sin2. Although the negative relationship is to some extent sounds to be strange, this is a truth. Especially risk loving investors often take the challenge to beat the constraints and gain from riskier ventures as most often riskier projects have a higher potential return. On the other hand, such a rise in FDI indicates poor functioning market mechanisms, lower institutional functioning, and higher risk whereas residents face limited growth opportunities and sell out their firms (Hausmann & Fernandez-Arias, 2000; Mollah Aminul Islam et al., 2021).

Role of FDI to developed the financial system

The financial system of a country is always regarded as the sole important vehicle to channelize the investments to the highest usage. A developed financial system ensures high allocative efficiency of financial resources and provides trustworthiness which may attract the foreign investors to invest in that country. Subsequently, the efficiency of the financial system coupled with the increased fund flow expands the operating capacity and further develops the system.

Abzari, Zarei, and Esfahani (2011) Studied the casual linkage between FDI and FD on D 8 countries. Their findings based on granger causality and vector autoregressive (VAR) for the period of 1976 to 2005 are evident that causal linkage running from FDI to FD is existent. Based on a similar approach, a study on ASEAN countries by Hanif and Shariff (2016) concluded with a similar result i.e., FDI can significantly and positively induce the financial sector of a country. Hanif and Shariff (2016) emphasized the effect of FDI and financial development represented by market variables. They argue that most often firms engaged in FDIs are willing to list their stocks in the local market which can provide them a strong financing source. In a recent paper, Aibai et al. (2019) analyzed the effect of FDI on FD. Considering the importance of OBOR project they took the countries involved in FDI as a sample case. They found a significant positive impact of FDI to improve the financial system of the host country especially, the Belt countries. Overall the region can expect a 0.1% developed financial sector in respective to every 1% increase of FDI inflows.

FD and FDI are causalities interrelated

Few studies explored both ways of causal relationship potency between FD and FDI. The methodologies used in those studies, the samples, and the findings are heterogeneous. This study considered those as well to have a better understanding of the phenomena.

Although there is no established theory to explain the FD-FDI relationships, the theoretical intuition supports that an increase in FDI inflow will result in a subsequent rise in money supply into the economy. Hanif and Shariff (2016) contend that there is no established theory to confirm the relationships between financial development. The increased money supply will flow through the two main veins of the financial system, namely the baking system and stock market, which will increase the financial intermediation. On the other hand, a well-developed financial system acts as a sign of validity, openness, and market-friendly environment, which attracts foreign investors. Based on cointegration and granger causality techniques Hanif and Shariff (2016) empirically studied a five economies panel from ASEAN zone namely, Malaysia, Indonesia, Singapore, Thailand, and the Philippines, for a period from 1990 to 2011. Their study finds that the FDI and banking sector of the ASEAN panel does not cause each other meaning that there is little evidence that FDI can boost the banking sector of ASEAN economies. On the contrary, they also found a bidirectional causal relationship between financial development and FDIs which partially supports his theories. A similar relationship is investigated by Soumaré and Tchana Tchana (2015) who analyzed 29 emerging economies for the time span of 1994-2006. They empirically found a very positive and significant bidirectional relationship between FDI and stock market indicators while FDI and banking indicators are found to be ambiguous and inconclusive. Similarly, Otchere et al. (2016) analyzed the direct causality between FDI and financial development in African case. Based on granger causality and multivariate analysis on data from 1996 to 2009 they contend that there is a bidirectional positive relationship between FDI and FMD.

The above causality studies are done in a panel setting. Recently, Tsagkanos, Siriopoulos, and Vartholomatou (2019) realized the shortcoming in the literature and considered to study the phenomena in the case of Grece as a special case from Emerging economies. Unlike traditional causality modeling, they Applied Markov Switching regression model to investigate the relations between Stock Market Development (SMD) and FDI. Their analysis based on data from 1988 to 2014 and two subperiods revealed an existant weak relationship between SMD and FDI in Greece. Although the significance in the subperiod varied, the relation remained positive. The weakness or variation may be caused by the existing financial crisis. Furthermore, the effect may be inherited from the results borne by IMF guardianship due to the financial crisis.

[2] *Refers to the state of incompleteness of the financial system (B. Eichengreen & Hausmann, 1999). This is a situation when a country "cannot borrow abroad its own currencies" (B. J. Eichengreen, Hausmann, & Panizza, 2002) or its own currency cannot be used "to borrow long term, even domestically" (B. Eichengreen & Hausmann, 1999).*

Most common words in relevant literature

Using NVivo 12 plus, we constructed a word cloud of the paper under consideration. The cloud is presented in fig.2. NVivo presents most frequent words in biggest and bold fonts and lesser frequent words gain smaller fonts (Tseng et al., 2019). Thus word cloud presents the most common word which can help the researchers to identify the themes and keywords of the group of publications under consideration. Our observation found the word 'FDI' as the highest frequent word while 'development' and 'financial' gained the second and third rank with a weighted percentage of 2.04%, 1.29% and 1.05%, respectively. This does prove the correctness of journal selection for the current study.

Figure 1: Word cloud for most common words in FD-FDI publications.

Table 1: Summary of Literature

Study	Major Focus of the paper	Study cases (Time period)	Methodology (Empirical Model Used)	Major Findings	Major Recommendation
(Nkoa, 2018)	Impact of FD on FDI	52 African countries (1995-2005)	Panel data analysis (GMM)	- Financial development positively attracts FDI - In countries with established bourses market variables are strong, while banking variables are strong in countries not having established bourses.	-African nations should enhance access to financial services. In necessary cases, financial reforms should be initiated and better conditions for new entrants should be ensured. - A credit rated increase is suggested to reduce the interest rate spread. -Credit guarantees can be created to ensure the make specific sectors such as SMEs, export-oriented and agricultural companies more loanable.
(Hajilee & Al Nasser, 2015)	Impact of FD on FDI	14 Latin American Countries (1980-2010)	Panel data analysis (bound test cointegration approach and Granger causality)	- Financial development significantly contributes to attracting FDIs in the long run. - The bidirectional causal relationship between stock market development and FDI while a unidirectional relationship between FDI and banking sector found.	- Latin America should formulate and execute policies to make their financial system stronger, broader and developed. -Undertake policies the make a better investment environment. -Formulate other appropriate policies to attract FDIs.
(Hausmann & Fernandez-Arias, 2000)	Factors that determine commercial capital flow	Latin American Countries	Panel data analysis	-FDI inflow is found to be higher (in comparison to other forms of foreign fund flows) in the countries where the financial system is not up to the mark, institutions are underdeveloped and are suffering from some original sin. -FDI and Financial development are substitutes for each other.	- Reform policies that support institutions to promote investment, enhance finance system and reduce risks.
(Desbordes & Wei, 2017)	Impact of FD on FDI	Different MNEs (2003-2006)	Panel data analysis based on firm-level data (difference-in-difference)	- Source and Destination country financial development enhances access to finance which directly and indirectly attracts FDIs.	- Governments should undertake external finance measures which can support in financial crisis.
(Kaur et al., 2013)	Impact of FD on FDI	BRIC countries (1991 to 2010)	Panel data analysis (Fixe random effect, Pooled ordinary least square)	- FDI inflows are largely attracted by banking sector and stock market development.	- the efficiency enhancement efforts for financial intermediaries must be undertaken to retrieve the benefits form FDIs.
(Al Nasser & Gomez, 2009)	Impact of FD on FDI	15 Latin American countries (1978 to 2003)	Cross-section Analysis	-FDI positively correlates to the market variables and banking variables.	- reform of investment regulations of the country such that it becomes more friendly to foreign investors. - formulation of appropriate policies to ensure macroeconomic stability

				-FDI into Latin American countries is a complement to financial sector development.	- concentrate on institutional development and infrastructure development.
(Aibai et al., 2019)	Impact of FD on FDI	50 OBOR partner economies (1989 to 2011)	Panel data analysis (Two stem system GMM)	-FDI significantly promotes financial sector in Belt and Road countries, especially in Belt countries. -The impact is more important for the financial market in comparison to the banking sector.	-Formulation of appropriate policies to attract more FDI. The development of institutions should be emphasized.
(Abzari et al., 2011)	Impact of FD on FDI	D 8 Countries	Cross-sectional analysis (Granger Causality, VAR)	The causal effect from FDI to financial development is existent.	
(Tsagkanos et al., 2019)	Relations between SMD and FDI	Greece (1988-2014)	Time Series (Markov Switching regression model)	Positive but weak and varying relations between SMD and FDI.	Greece should formulate policies that are heading to make productive structural reforms. Establishing a stable taxation system, enhancing public administration effectiveness, export promotion etc. are specifically advocated.
(Otchere et al., 2016)	The direct causal relation between FDI and FMD	African Countries (1996-2006)	Panel data analysis (Granger Causality, System GMM)	- Positive both way causality between FDI and financial market development. - endogenous relationship between FDI and financial market development.	Financial sector development should be given special emphasis.
(Hanif & Shariff, 2016)	The direct causal relation between FDI and financial development	five selected ASEAN countries	Panel data analysis (cointegration and granger causality approach)	The positive bidirectional correlation found in market variables of financial development and FDI, no cointegration found between banking sector development and FDI.	-Should formulate reform policies to improve the local financial system. -Should reform investment regulations -FDI policies should be liberalized -Take steps to gain macroeconomic stability and infrastructure development. -Intra ASEAN FDI should be focused.
(Soumaré & Tchana Tchana, 2015)	The direct causal relation between FDI and financial development	29 Emerging Economies- Africa 15, Asia 4, East Europe 4, Latin America 6 1994-2006	Panel data analysis (2SLS, 3SLS Simultaneous Equation Modelling)	-Positive bidirectional causality between FDI and Stock Market -Causality between FDI and Banking sector is ambiguous and inconclusive - endogenous relationship between FDI and FD.	-FDI friendly policies suggested -Stock market-friendly regulations are suggested to undertaken, especially, the mechanisms to ensure good governance and investors' rights protection.

Conclusion

The current study endeavors to review, summarize and synthesize the available literature on the direct relationship between financial development (FD) and foreign direct investment (FDI). Our study has gained some novelty points to present a comprehensive definition of financial development, reviewing the FD-FDI direct relationship for the first time. We have followed a systematic way to select relevant papers and included 14 papers in the study. Our study is divided into two main parts to present the literature review. The first part presents the theoretical aspects of the FD-FDI relationship from literature while the second part discusses empirical pieces of evidence in previous literature.

The theoretical intuition considers a developed financial system of a country is the most important channel to mobilize and allocate financial resources for best usage. Furthermore, a developed financial system of a country represents a symbol of trust, validity and operating efficiency to the foreign investors. Moreover, firms involved with FDIs are most often are interested to float their stocks in the local bourses. The financial system, i.e., financial institutions and financial market, is a key source of external finance for investors. Theoretically, these are the key reasons why foreign investors are attracted to invest in a country with a sound and developed financial system. From the opposite angle, the fund flow via FDIs raises the country's money supply, which usually flows into the financial system, which increases transactions and financial activities. These raise the demand for financial services, induce fair competition, reduce unfair politics, ensure investors' right protection and better governance. All these gradually develop the financial system of the FDI host country.

The theoretical intuitions were found mostly true in empirical pieces of evidence. With a systematic approach, the papers selected for the current study are mostly evident that the relationships are significant and positive. More specifically, a group of studies found a significant impact of financial development on foreign direct investment. These studies suggest that foreign investors are more prone to invest in countries where the financial system is developed. Although, a very few, a group of studies found negative linkage in this connection. According to those studies, foreign investments flow more to the countries with an underdeveloped financial system, weak institutions and suffering from original sin.

On the contrary, another group of studies well-identified the impact of FDI inflows to develop a country's financial system. Some others found causal linkages running from one to another or both way causality between financial development and foreign direct investment.

In sum, we conclude that financial development and FDI both have a significant impact on each other. Once the financial system is developed enough, more FDI can be expected to come into the host country. The FDIs will have a further effect to make the financial system more developed. Thus, these two can make a development loop that can finally add significant value to the economic speed of the country. Thus, we suggest the policymaker adapt and formulate financial reform policies and other policies that make the country friendlier to foreign investors, such as developing the institutional quality and reforming taxation policies.

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