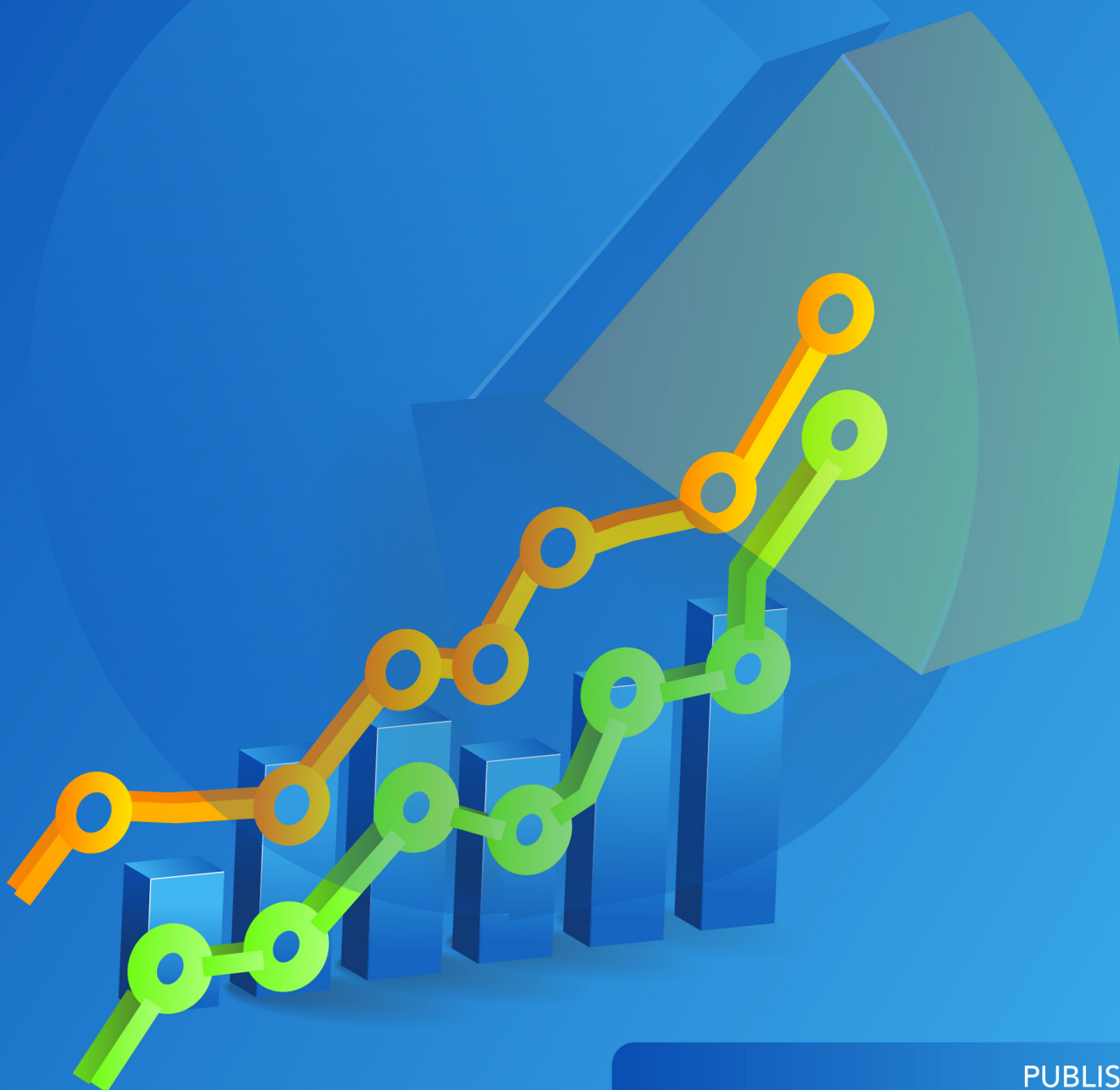


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FDI, Technology Transfer and Economic Growth, What's the connection? The case of Morocco

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ABSTRACT

Foreign direct investment (FDI) has grown significantly in developing countries over recent decades, and governments in these countries now regard FDI as a key component of their development strategy. The potential benefits of FDI include the provision of financial resources, job creation, increased economic growth and spillover effects on local businesses. In addition, the development effectiveness of FDI depends on the ability of host countries to absorb technology and innovation from foreign companies. Technology transfer (TT) is therefore a major issue in the context of FDI. Political institutions and economic players need to work together to encourage effective and sustainable technology transfer. Technology transfer is therefore an essential process in enabling companies to remain competitive and innovate in a constantly changing economic environment. Technology transfer centers play a crucial role in this process, facilitating the exchange of knowledge and technology between the various players in the innovation ecosystem. After examining the two variables, Foreign Direct Investment (FDI) and TT on economic growth, the results indicate that both variables have a positive impact on economic growth

INTRODUCTION

Over the past few decades, we have witnessed a gradual evolution in the policies of governments in Developing Countries (DCs) regarding Foreign Direct Investments (FDI). In the 1950s and 1960s, DCs were wary of multinational corporations (MNCs) and feared their presence could harm their sovereignty and economic development. However, starting in the 1970s, there was a growing realization of the potential role of FDI as a development catalyst, especially due to the experiences of some countries that successfully attracted FDI and reaped economic benefits from it.

In the 1980s and 1990s, DCs progressively adopted more FDI-friendly policies by liberalizing investment conditions and offering tax and regulatory incentives to MNCs. However, the liberalization of investment policies also came with risks and challenges for DCs, such as loss of control over natural resources and increased dependence on foreign investors. Therefore, the governments of DCs need to design investment policies that take into account the potential benefits and risks of FDI while seeking to maximize economic and social returns for their country. Foreign Direct Investment (FDI) can have a significant impact on the economic growth of host countries by improving total factor productivity, which is the efficiency with which resources are used to produce goods and services. The mechanisms contributing to this improvement include the links between FDI flows and international trade, beneficial externalities for local businesses, and direct effects on the structural factors of the host economy.

Beneficial externalities for local businesses are also an important factor. The presence of a multinational

corporation can lead to improved infrastructure quality, increased training and expertise of local workers, as well as greater diffusion of technologies and innovative business practices. Indeed, technology transfer is a complex and dynamic process involving multiple actors, such as technology holders, stakeholders, end-users, regulators, governments, etc. The success of technology transfer depends on several factors, including the quality of the technology, the company's ability to transfer it effectively, the skills and capacity of the recipients to absorb and apply it, existing regulations, government policies, environmental and socio-economic constraints, and more.

Throughout this paper, we provide a summary of the literature dedicated to the relationship between incoming FDI flows and the spillover effects they may generate in Developing Countries (DCs).

We aim to shed light on the key current controversies in the field. We particularly emphasize the concepts of "absorptive capacity" and "innovation" that could explain the mixed results regarding the presence of positive spillover effects in DCs.

Through this modest study, our aim is to address the following question: "How can we emphasize the role of FDI in the technology transfer process as a catalyst for economic growth?" With this research question in mind, we can formulate the following sub-questions, which will serve as the guiding framework for our article:

The present paper comprises three main axes that will guide our study effectively:

Question 1: What is technology transfer through FDI?

Question 2: How can we improve the Moroccan environment to attract FDI for effective technology

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transfer?

Question 3: Can FDI impact economic growth through technological progress rather than capital accumulation? This document is organised into three main parts, which will help us to carry out our study effectively. The first point will focus on the theoretical foundations of the key concepts of our subject.

LITERATURE REVIEW

FDI, Technology Transfer, and Economic Growth: In this section, we will review existing literature that explores the relationship between Foreign Direct Investment (FDI), technology transfer, and economic growth. The second point will focus about the link between the key concepts of our subject.

Interaction between FDI, Technology Transfer, and Economic Growth

Here, we will delve into the dynamics and interactions between FDI, the transfer of technology, and their impact on economic growth. The third point will be the subject of an econometric study, which will be used to investigate the empirical link between the variables studied, after emphasising the methodology to be adopted in this study.

Econometric Analysis of the Relationship between the Studied Variables

This section will involve an econometric analysis to examine the quantitative relationship between the variables under study, providing empirical insights into the topic.

Literature Review: FDI, Technology Transfer, and Economic Growth

This section will be dedicated to presenting Foreign Direct Investment (FDI) from various perspectives, including its definition, forms, consequences, and determinants.

Foreign Direct Investment

Definition

FDI has been defined in various ways, and some notable definitions include:

According to the definition provided by the IMF, “Foreign Direct Investment is made with the intention of acquiring a lasting interest in an enterprise operating in an economy other than that of the investor, with the objective of having a significant degree of influence on the management.”

According to the OECD, FDI is “an activity in which an investor resident in one country obtains a significant interest and influence in the management of an entity in another country. This operation may involve creating an entirely new enterprise (Greenfield investment) or, more commonly, changing the ownership status of existing businesses (through mergers and acquisitions). Other financial transactions between related enterprises, including reinvestment of profits from the enterprise receiving the FDI or other capital transfers, are also defined as foreign direct investment³.”

According to the IMF and OECD definitions, direct investment reflects the aim of obtaining a lasting interest by a resident entity of one economy (direct investor) in an enterprise that is resident in another economy (the direct investment enterprise). The “lasting interest” implies the existence of a long-term relationship between the direct investor and the direct investment enterprise and a significant degree of influence on the management of the latter. Direct investment involves both the initial transaction establishing the relationship between the investor and the enterprise and all subsequent capital transactions between them and among affiliated enterprises⁴, both incorporated and unincorporated⁵.

Forms of FDI

Various forms of FDI offer advantages and disadvantages, depending on the objectives, needs, and capabilities of the involved companies, as well as the economic, political, and regulatory conditions of host countries. They also require a careful assessment of the risks, costs, and benefits associated with each option.

The literature on Foreign Direct Investment (FDI) offers a multitude of typologies based on different theoretical frameworks and research objectives. For the purposes of this study, we will focus on three major axes: (1) greenfield

Table 1: Different Forms of FDI

Form	Significance
Greenfield investments	<p>Greenfield investments occur when foreign companies make significant investments in establishing new production capacities or expanding existing ones in the host country. Host nations highly value these investments, especially when aimed at addressing high unemployment rates. Greenfield investments become a central focus of a host nation's promotional efforts because they bring about new production capabilities, job opportunities, technology transfer, and global market connections. From a human capital perspective, greenfield foreign direct investment (FDI) typically creates new employment opportunities and enhances productivity.</p> <p>Despite the positive reception of greenfield investments in host countries, it is essential to acknowledge that they may potentially displace local businesses and certain industries, especially those heavily reliant on technology. While profits from local companies circulate within the domestic market, the same may not always be true for foreign companies engaged in greenfield investments. In the context of Kosovo, where high unemployment is a prevailing concern, this type of FDI, along with similar sub-types, is warmly embraced.</p>

Mergers and acquisitions	<p>Mergers and acquisitions (M&A) are typically carried out when existing assets are transferred from a local company to a foreign company.</p> <p>In other words, the assets and operations of companies in different countries are combined to create a new legal entity.</p> <p>Countries with lower levels of development are likely to have fewer opportunities for M&A actions. According to the IPAK (2012) Annual Survey on FDI Perceptions, compared to greenfield investments, M&A “requires a “There is no long-term benefit to the economy.” “The money from the sale never reaches the local economy” (p.9). The most noted benefit of this type of he FDI is increased labor productivity, but we find less evidence regarding employment growth.</p> <p>Empirical studies in this direction are inconclusive and contradictory.</p>
Joint ventures	<p>Joint ventures can involve a local company, government or a foreign company operating in the host country. Cross-border joint venture is one in which economic entities from at least two countries are involved. One positive spillover in terms of human capital is technical spillover especially when there is a combination of foreign and local company. According to Dunning and Lundan (2008), one of the main factors “influencing the viability and success of cross-border joint ventures concerns the choice of partner and reciprocal trust between partners” (p.273). Rather than profit gain, there are different factors and motives behind joint ventures. According to the model of Casson (2000), formation of joint ventures has nine factors such as: economies of scale, market size, economies of scope, technological uncertainty, technological change, cultural difference, interest rates, protection of autonomy and missing patent rights (Casson, 2000). The significance of human capital development in joint ventures varies in developed countries compared to transition and undevelopment countries.</p>

Source: Prepared by the authors

investments, symbolising the establishment ex nihilo of a foreign entity, (2) mergers and acquisitions (M&A), representing the transfer of ownership of existing assets, and (3) joint ventures, illustrating the collaboration between local and foreign investors.

Technology Transfer

Definition

Technology transfer is the introduction and adoption of new (typically more advanced) methods of production and equipment that are already in use in other regions. This transfer can be intellectual (methods, concepts) or geographical (physical equipment).

Technology transfer is the process by which technology, knowledge, or expertise (including hardware, software, organizational methods, etc.) developed by one party in a project or agreement is conveyed to another.

Technology transfer (TT) is a process in which an industrial actor acquires technology from a public entity or another private company, usually with the intention of commercializing it.

Types of Technology Transfer

Technology transfer refers to the process by which technology, knowledge, or skills are transmitted from one company or country to another.

Here are five different types of technology transfer:

Horizontal Technology Transfer

This involves the transfer of technology between companies or organizations engaged in similar activities. For example, a mobile phone manufacturer may transfer production technology to another mobile phone manufacturer.

Vertical Technology Transfer

This involves technology transfer between companies or organizations that engage in different activities but are linked by a value chain. For example, an electronic components supplier can transfer technology to a mobile phone manufacturer.

Technology Transfer through Research and Development

This is the transfer of technology resulting from research and development of new technology. Companies can transfer internally developed technology to other companies that can use it in their own products or services.

Technology Transfer through Licensing

This is the transfer of technology in which a company holding patents or intellectual property rights grants another company, the right to use the technology in exchange for royalties or licensing fees.

Technology Transfer through Strategic Alliances

This is the transfer of technology resulting from strategic alliances between companies that collaborate to develop new technology or improve existing technology. Companies can share knowledge and skills to jointly develop new technology.

Economic Growth

Definition

Economic growth refers to the positive change in the production of goods and services in an economy over a given period, typically a long one. It is a concept used to measure economic activity through indicators such as

Gross Domestic Product (GDP) growth and an increase in per capita income.

According to François Perroux, growth is “the sustained increase over one or more long periods of a dimension indicator: for a nation, the overall net product in real terms.” He also noted that “no observed growth is homothetic; growth occurs within and through structural changes.”

Theories of economic growth are economic models that seek to explain the origin and causes of economic growth. They have evolved over time, transitioning from exogenous growth models to endogenous growth models. A theory of economic growth helps understand the determinants of a country’s growth and why some countries experience stronger economic growth than others.

Theories of Economic Growth

Various theories of economic growth have emerged over time. Among them are mercantilist, classical, neoclassical, spontaneous order, and monetarist theories. Each theory seeks to understand the economy and proposes models to maximize economic growth.

The theories of economic growth study the sources and mechanisms of sustained and lasting increases in production in an economy over an extended period. These theories aim to explain the factors contributing to economic growth and understand the causes of this growth. Here is an overview of the different theories of economic growth:

Exogenous Growth Models

These models explain economic growth by focusing on factors external to the economy itself. Among these factors are population growth and technological progress. In these models, growth is considered to be exogenous, meaning it does not depend on internal economic variables.

New Growth Theories

These theories draw inspiration from older schools of economic thought, such as classical, Keynesian, and neoclassical economics. They focus on whether sustainable economic growth is possible and under what conditions it can be achieved. The work of two economists, Nicholas Kaldor and Joseph Schumpeter, has had a significant influence on these new theories.

Endogenous Growth

This theory emphasizes factors within the economy that contribute to economic growth. It highlights the role of investment, research, human capital, and infrastructure. According to this theory, economic growth can be sustained through capital accumulation and productivity improvement. The work of researchers such as Paul Romer, Robert Lucas, and Robert Barro has contributed to the development of this theory.

Interaction between FDI, Technology Transfer, and Economic Growth

FDIs are now recognized as a privileged channel for technology transfer, knowledge accumulation, and know-how. Technology is seen as a powerful driver in shaping the productive landscape of a host country.

Positive externalities or “spillovers,” as noted by Blomstrom (1986), occur through the mobility of skilled personnel, subcontracting relationships, or the reduction of productive inefficiencies through competition. The presence of these spillovers is supported by the positive correlation between FDIs and productivity indicators, established through cross-sectional studies (Caves, 1974), (Globerman, 1979), assuming that the presence of MNCs promotes the efficiency improvement of domestic firms. The first objective of this study is to understand whether technology transfer has taken place in a country like Morocco. In macroeconomic studies, it is very difficult,

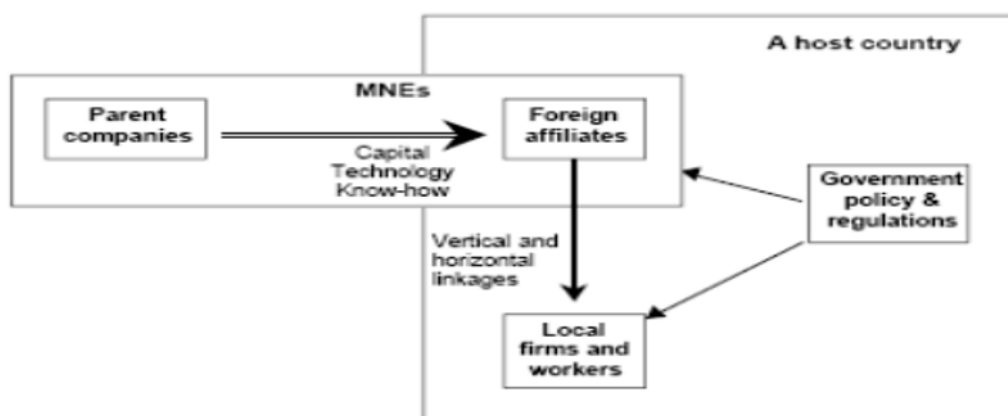


Figure 1: The Role of FDI in Developing Host Country Industry and Workers

Source: JBIC 2002

if not impossible, to observe technology transfer directly. This is why previous studies have tended to use an indirect measure of technology transfer. One of the best measures of the presence of technology transfer is economic

growth. The argument is that economic growth is due to technological improvements. Economic growth has fascinated economists and philosophers for hundreds of years, and previous research or discussion on the subject

can be divided into three categories: classical, neoclassical and modern. The researcher offers an analysis of each of the three types of research on economic growth in the context of FDI.

MNCs are likely to disseminate advanced technologies to the local industrial fabric for several reasons. In general, MNCs can transfer these advanced technologies to their foreign subsidiaries, including those in developing countries, to enhance their competitiveness in the global market.

Furthermore, MNCs can transfer their organizational and managerial know-how to foreign subsidiaries. This may include skills in supply chain management, human resource management, product development, and marketing. These skills can be crucial for local businesses seeking to enhance their efficiency and competitiveness in the global market.

Finally, MNCs can also disseminate advanced technologies to the local industrial fabric through interactions with local companies. MNCs often have the ability to form strategic alliances with local companies to share knowledge and skills or to develop new and improved technologies.

Overall, MNCs play a crucial role in the diffusion of advanced technologies to the local industrial fabric. Their presence and their ability to transfer organizational and managerial know-how, as well as R&D skills, can help local businesses improve their efficiency and competitiveness in the global market.

Furthermore, FDI represents a common means of intra-firm technology transfer. Nowadays, most international licensing for manufacturing takes place between parent companies and their foreign subsidiaries. Additionally, on a global scale, the majority of private R&D activities are conducted by MNCs.

Technology Transfer as a Source of Convergence

Technology transfer is a crucial mechanism for the economic development of developing countries. Foreign Direct Investment (FDI) flows are one of the primary channels for transferring foreign technology. Economists generally recognize an overall positive effect of FDI on the economic growth of developing countries, but there are important nuances and a variety of situations. Multinational Corporations (MNCs) play a key role in transmitting foreign technology to host economies. The spillover effects of FDI occur when local companies benefit from the technological knowledge, management skills, or markets that MNCs possess. This can happen without local companies having to bear the costs of developing or acquiring these skills and knowledge (Kokko, 1994). Technology transfer through FDI is an important mechanism for the economic development of developing countries.

Absorptive Capacity as a Prerequisite for Technology Transfer

Narula and Marin (2003) have emphasized that absorptive capacity also involves the ability to internalize knowledge created by others and adapt it to one's own uses and processes. This requires the ability to identify technology transfer opportunities, establish partnerships and collaborations with other actors, and effectively manage the transfer process. Abramovitz (1991) defines two variables that determine to what extent technologically lagging firms in a country will catch up. Absorptive capacity is an essential concept in the context of technology transfer. It represents the ability of a company or a country to assimilate and effectively use external technological knowledge to enhance its own technological and productive capabilities.

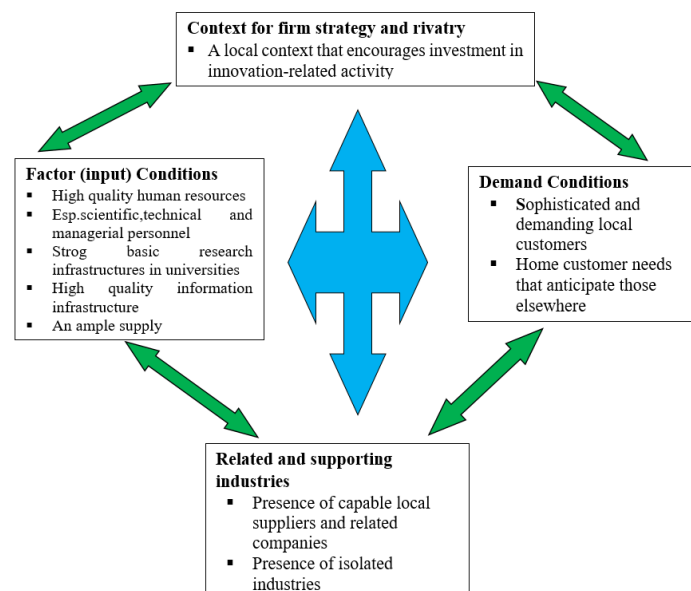


Figure 2: The national environment for innovation and technological diffusion

Source: Developed by the authors

Absorptive Capacity and Spillovers

The absorptive capacity among domestic firms appears to be a necessary condition for benefiting from the

positive spillover effects of FDI. In this regard, Kumar and Pradhan (2002) emphasize that a more favorable effect of FDI on a host economy is closely related to

the diffusion of externalities or spillovers to local firms by multinational corporations. According to UNCTAD, “To achieve sustainable economic development, it is not enough to open the door and wait for new techniques to arrive. National companies must constantly strive to improve their technological level, and public authorities must support them.”

Human Capital: A Vital Component of Absorptive Capacity

Absorptive capacity is the ability of a company, sector, or country to assimilate and effectively use technological knowledge from external sources. It depends on several factors, including the quality of technological infrastructure, corporate culture, regulatory environment, and adaptability. Studies have shown that absorptive capacity is largely dependent on the level of human capital in the host country. Companies and workers with higher levels of education and skills are better prepared to assimilate new technological knowledge and apply it in their daily work. Kindrick (1981) recognized that the adoption and adaptation of foreign technology may require a country to engage in R&D to develop its absorptive capacity.

Trade Openness as a Support for Technology Transfer

A country’s trade openness can be a key factor in technology transfer and the productivity of its companies. Authors Grossman and Helpman (1991) point out that trade openness can enhance a country’s ability to absorb

knowledge and apply it, especially by allowing imitation and learning from abroad. Authors Bouoiyour and Toufik (2007)²³ conducted a study on the impact of Foreign Direct Investment (FDI) on the productivity of Moroccan companies. They found that the presence of FDI in Morocco’s manufacturing industries had a positive effect on the productivity of local companies, especially in low-tech sectors. However, the effect was less pronounced in high-tech sectors. Trade openness can be a key factor in technology transfer and the improvement of local business productivity, but it depends on the level of development of the host country’s human capital and its ability to absorb and effectively apply foreign knowledge.

FDI, Technology Transfer, and Economic Growth

Economic policies aimed at attracting FDI are based on the idea of capturing technological externalities, but empirical studies show that the effect is not always positive and must be subject to discussion. The trade-off between funds and efforts spent on attracting FDI, on one hand, and the benefits generated, on the other hand, is far from settled. Thus, other studies will show that in reality, FDI and trade have a negative effect or at least no significant effect on economic growth. Technology transfer has become a priority in the overall strategy of developing countries, which lack sufficient capabilities for autonomous development and face significant technological lag. In this perspective, Foreign Direct Investment (FDI) appears to be one of the means for these countries to stimulate growth and benefit from “technology and know-how transfer.”

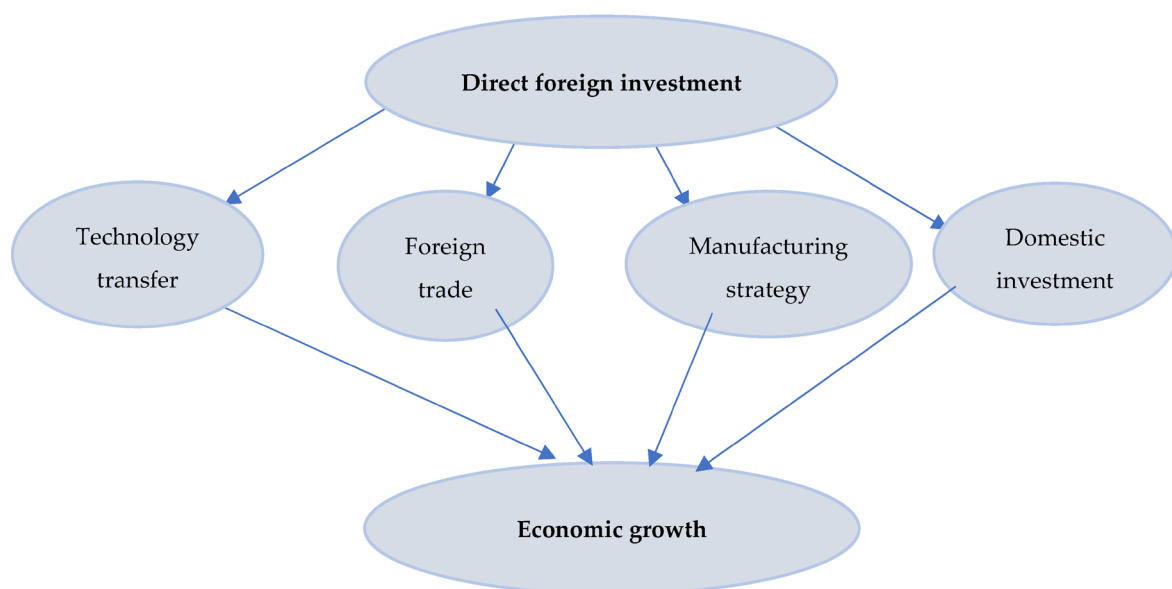


Figure 3: Links between FDI and Economic Growth

Source: Makin and Chai 2018

Econometric Analysis of the Relationship between the Studied Variables and Interpretation of Results
Empirical Literature on FDI and Economic Growth
 Before moving on to present the methodology adopted

in this study, it is considered necessary to briefly present the empirical studies that have dealt with the relationship between the variables studied in our study.

Table 2: Empirical literature on FDI and economic

Studies that have found a positive relationship	Studies that did not find a relationship	Studies that have found a négative relationship
De Meillo 1999). Nair-Reichert & Weinhold (2001). Campos & Kinoshita (2002). Alfaro <i>et al.</i> (2004), Basu <i>et al.</i> (2001). lensink & Morrissey (2006). IjunwaI & Ii (2007). AlguaciI <i>et al.</i> (201 I). Anwar& cooray (2012). Roy & MandaI (2012), Gursoy & Kalyoncu (2012)	Ericsson & Irandoust (2001),Carkovic & Levine (2002,2005),Zhang(2001),Hermes & Lensink (2003)	Saltz(1992). Bende- Nabende <i>et al.</i> (2000), Alfaro (2003), Mencinger (2003). Darrat <i>et al.</i> (2005). Ang 2009). Alfaro <i>et al</i> (2010). Wang & Wong (2011)

Source: https://ebrary.net/100486/business_finance/finance_technology

Methodology of Studie

The methodology employed in this article titled “Technology Transfer and Economic Growth: What’s the Connection? The Case of Morocco” is quantitative and based on a hypothetico-deductive approach. We defined and examined our variables in advance in the first part of our paper to establish the various potential links between them before proceeding to validate these relationships through econometric analysis.

Data Collection: We collected our data from reliable sources such as the World Bank and the High Commission for Planning (HCP) of Morocco. This data includes information on Foreign Direct Investment (FDI), technology transfer indicators (TT), and the economic growth of Morocco.

Econometric Analysis: Subsequently, we conducted an econometric analysis using an appropriate statistical model. Our analysis is based on a set of variables studied

to assess the impact of FDI and TT on economic growth. This analysis is at the core of our article and will be detailed.

Interpretation and Discussion of Results: After completing our econometric analysis, we interpreted and discussed the results obtained. This step is essential to validate the relationship between the various variables studied for the case of Morocco. We examined the direction and strength of the relationships, as well as the magnitude of the impact of FDI and TT on Moroccan economic growth.

Econometric Analysis of the Relationship between the Studied Variables

Résultats of Stady

Stationarity tests can reduce the risk of spurious regressions. In this regard, we consider the proposed tests of Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP).

Table 3: ADF and PP Stationarity Test Results

Variable	ADF (% 5)		Phillips-Perron (% 5)		Niveau
	Niveau (Intercept)	1ère. Différence (Intercept)	Niveau (Intercept)	1ère. Différence (Intercept)	
LCR	-0.955675	-4.044859	-0.540275	-6.370140	I (1)
	-3.673616	-3.690814	-3.673616	(-3.690814	
L FDI	-7.269069	-3.791931	-6.867604	-25.06467	I (0)
	-3.673616	-3.710482	-3.673616	-3.690814	
LTT	-2.028799	-4.509680	-2.077308	-7.753299	I (1)
	-3.673616	-3.690814	-3.673616	-3.690814	

Source: Developed by the authors based on the outputs of Eviews 10 software

According to the results presented in the previous table, we find that the coefficient of determination (R²) exceeds 90%, which means that the chosen explanatory variables do indeed have an impact on the dependent variable. Furthermore, in terms of the statistical tests that help diagnose and analyze the estimated ARDL model, namely the Breusch-Godfrey serial correlation test (LM) and the Durbin-Watson (DW) test, they confirm the presence of serial correlation if the probability associated with the F-LM statistic is greater than 0.05. However, in our

case, this is not true, as the probability associated with the F-LM statistic is equal to 0.23, indicating an absence of autocorrelation.

Similarly, for the ARCH heteroskedasticity detection test, the probability is equal to 0.53, indicating an absence of heteroskedasticity.

According to this figure presenting the 20 estimated models selected by the AIC selection criterion, we can observe that the optimal model in our case is the ARDL (2,3,3) model.

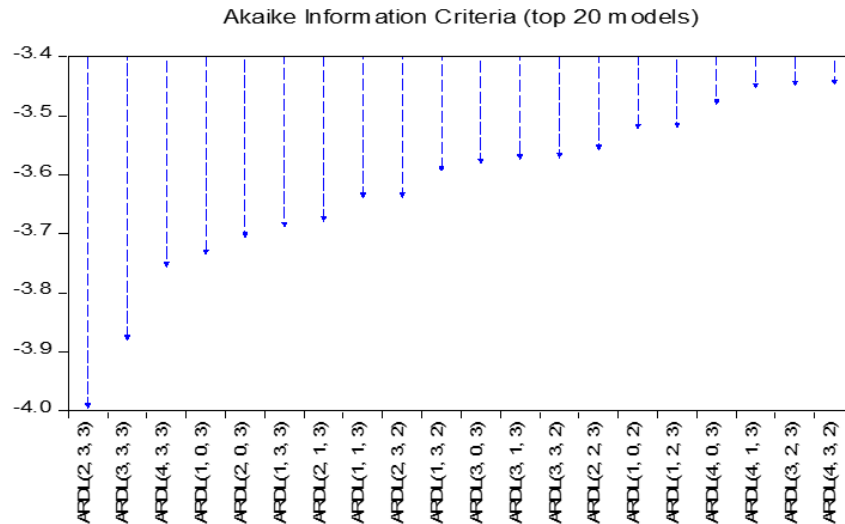


Figure 4: Akaike Test

CUSUM Stability Tests

The two figures above, CUSUM and CUSUM square, are used to analyze the stability of the dependent variable over time, especially during the evaluated study period. We can observe that the variable being explained is stable during the study period because its evolution remains within the confidence interval marked in red.

According to Table 4 of the Pesaran *et al.* cointegration test, we can observe that the calculated F-statistic, which is equal to 8.543578, exceeds the upper bounds of the various critical thresholds. This indicates that there is cointegration among the variables under study, meaning there are both short-term and long-term equilibrium relationships.

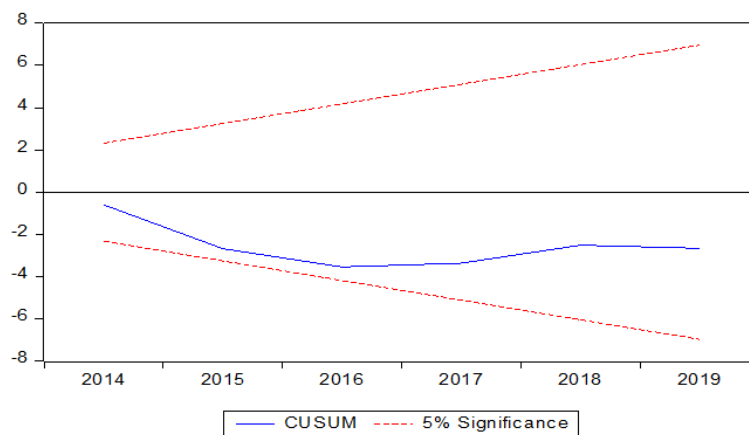


Figure 5: CUSUM Stability Test

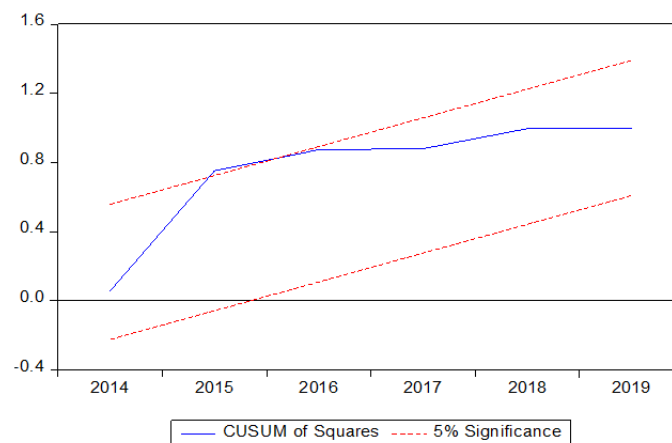


Figure 6: CUSUM SQUARE Stability Test

Table 4: Results of Pesaran *et al.*'s Cointegration Test

Calculated F-statistic	8.543578	
Critical Threshold	LB²⁶	UB²⁷
10%	2.63	3.35
5%	3.1	3.87
2.5%	3.55	4.38
1%	4.13	5

Source: Compiled by the authors, based on the cointegration test by Pesaran *et al*

Table 5: Short-Term Dynamic

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LOG FDI (-1))	-0.067366	0.032516	-2.071785	0.0837
D(LOGTT)	0.632801	0.092858	6.814751	0.0005
CointEq(-1)*	-0.996210	0.139141	-7.159711	0.0004

Source: Developed using Eviews 10 by the authors

Table 6: Long-Term Dynamics²⁹

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LOG FDI	0.044299	0.079572	0.556712	0.5979
LOGTT	1.273179	0.183652	6.932580	0.0004
C	2.783909	0.370346	7.517046	0.0003

Source: Developed using Eviews 10 by the authors

Based on the results obtained, we find that the variable logide is significant at the 10% level, while the variable logtt is significant at the 1% level.

In statistical terms, the cointegration coefficient is equal to (-0.996), and this result is negative and statistically significant, indicating the presence of a long-term relationship.

The elasticity of logide is (-0.067), which means that a 1% increase in this explanatory variable will lead to a 0.067% decrease in the dependent variable studied, indicating a negative effect.

As for the variable tt, it is positive, reflecting that a 1% increase in this variable will result in a successive increase of 0.63% in the variable under investigation, which is economic growth.

DISCUSSION

In the long term, we observe in our model that the variable TT is significant at the 1% level with a probability of 0.0004, while the variable FDI is not significant at the 10% level.

There is a positive impact of both variables studied on economic growth. The first variable, FDI (Foreign Direct Investment), increases growth by 0.044299, while the variable TT (Technology and Knowledge Transfer) is estimated at 1.273179, indicating a positive influence.

After examining the two variables, Foreign Direct Investment (FDI) and TT on economic growth, the results indicate that both variables have a positive impact on economic growth. More specifically, FDI increases growth by 0.044299 (meaning that each increase of

one unit of FDI leads to an increase of 0.044299 units of economic growth), while TT has a positive effect estimated at 1.273179 (implying that each increase of one unit of TT leads to an increase of 1.273179 units of economic growth).

These results suggest that Foreign Direct Investment and TT are important factors in stimulating economic growth. However, it is important to keep in mind that the results of statistical analysis are not always conclusive, and other factors may influence economic growth.

Foreign Direct Investment (FDI) and TT (Technology and Knowledge Transfer) are two important variables that affect economic growth. FDI is an investment made by a foreign company in a local business or physical asset, while TT refers to the transfer of technical and technological knowledge from one company or country to another.

FDI can have a positive effect on economic growth by bringing foreign capital, technology, and skills. It can also contribute to job creation and infrastructure development in the host country. However, FDI can also have negative effects, such as economic dependency on foreign investors, reduced local competition, and profit outflows.

Similarly, TT can also have a positive impact on economic growth by improving productivity, stimulating innovation, and enhancing the competitiveness of businesses. However, TT can also have negative effects, such as reduced demand for low-skilled labor and the creation of economic inequalities between technology-owning and non-owning countries.

Ultimately, the impact of FDI and TT on economic growth depends on many factors, such as the economic policies of the country, local technological capabilities, and international trade relations. A proper combination of these two variables can lead to sustainable and balanced economic growth.”

CONCLUSION

This study focuses on the relationship existing between foreign direct investments, Technology Transfer and economic growth for Morocco. The positive effects of Foreign Direct Investment (FDI) on the local economy are not automatic and depend on several factors. Public policies play a crucial role in creating a favorable environment for the absorption and diffusion of modern technologies. Investments in education, innovation, and training can improve internal absorption capabilities, while policies that encourage cooperation between multinational corporations (MNCs) and local actors can facilitate the diffusion of modern technologies to the local economy.

Furthermore, policies aimed at improving transportation and communication infrastructure, combating corruption, and strengthening institutions can help create a political and macroeconomic environment conducive to the positive spillover effects of FDI.

FDI and technology transfer can play a significant role in Morocco’s economic growth. Indeed, FDI can contribute to the influx of capital, technology, and skills needed for the country’s economic development. Technology transfer, on the other hand, can enable Moroccan companies to benefit from recent technological advancements and thus improve their productivity and competitiveness in international markets.

Morocco has adopted an economic openness policy since the 1990s, aiming to attract foreign investment and promote technology transfer. This policy has led to a significant increase in FDI in Morocco, especially in the automotive, aerospace, agri-food, and textile industries.

However, despite this economic openness and the increase in FDI, Morocco still faces significant challenges in terms of technology transfer. Moreover, the low level of technical skills among Moroccan workers can make it difficult for local companies to assimilate new technologies.

To address these challenges, Morocco has implemented policies aimed at encouraging technology transfer, including tax incentives and training programs for workers. The government has also encouraged partnerships between local and foreign companies to promote the transfer of knowledge and skills.

In conclusion, it can be said and confirmed that FDI and technology transfer can play an important role in Morocco’s economic growth. However, to maximize the benefits of these factors, it is essential to implement effective policies aimed at promoting technology transfer and developing the technical skills of local workers.

Perspectives

Based on the conclusion of our article, here are some recommendations for future researchs:

Policy Implications

Evaluate the existing economic policies related to foreign direct investment and technology transfer. Consider whether adjustments or new policies are needed to maximize the positive impacts and mitigate potential negative consequences.

Regulatory Framework

Assess the regulatory framework governing foreign direct investment and technology transfer. Consider whether there is a need for more stringent regulations or incentives to ensure responsible and sustainable practices.

Technology Capacity Building

Investigate strategies for enhancing the local technological capabilities to better absorb and adapt foreign technologies. This could involve investment in education, research and development, and fostering an environment conducive to innovation.

Labor Market Considerations

Examine the effects of foreign direct investment and technology transfer on the labor market. Explore policies that can address potential disparities, such as training programs for displaced workers or initiatives to promote skill development.

Sustainable Development Goals (SDGs)

Align the analysis with the Sustainable Development Goals, considering how foreign direct investment and technology transfer can contribute to achieving specific SDGs, such as decent work, economic growth, and innovation.

Comparative Studies

Conduct comparative studies across countries with different economic structures and policies to identify best practices and lessons learned. This can provide valuable insights for policymakers seeking to optimize the benefits of foreign direct investment and technology transfer.

Long-Term Impact Assessment

Investigate the long-term impact of foreign direct investment and technology transfer on economic growth. Assess whether the initial positive effects are sustained over time and identify any emerging challenges.

Public-Private Partnerships

Explore the role of public-private partnerships in facilitating responsible foreign direct investment and technology transfer. Assess how collaboration between governments and private entities can lead to mutually beneficial outcomes.

Risk Management Strategies

Develop risk management strategies to address potential downsides of foreign direct investment, such as economic dependency and profit outflows. Consider mechanisms to balance the interests of foreign investors and the host country.

Global Trade Relations

Examine the influence of global trade relations on the effectiveness of foreign direct investment and technology transfer. Analyze how changes in international trade dynamics may impact the success of these economic strategies.

These recommendations can serve as a starting point for further research and policy considerations, helping to refine and optimize the role of foreign direct investment and technology transfer in fostering sustainable and balanced economic growth.

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