

Does language affect the location choice of developing-economy MNEs? The case of Moroccan outward FDI*

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Abstract

The present paper investigates the effect of linguistic distance on location decisions of Moroccan outward foreign direct investment (FDI) using panel data on 54 host countries from 2007 to 2021 and the robust weighted least squares estimation method. The results show that the higher the share of French- and Arabic-speaking populations, the more the host country attracts FDI from Morocco. Also, the results show that the higher the share of the English-speaking population, the less the host country attracts FDI because English-speaking countries tend to adopt institutional structures (the Anglo-Saxon way of governance) that differ from the French model inherited by Morocco during its colonization. For Spanish, there is no effect on the location decisions of Moroccan multinational enterprises because of the language's marginalization at the formal level. The study highlights important policy considerations for home and host countries in terms of investment policy and investment promotion, language-in-education policies, and the role of international cultural and linguistic institutes in home and host countries.

Keywords: foreign direct investment, internationalization, knowledge-capital model, language distance, multinational enterprises, psychical distance, robust least squares

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1. Introduction

Globalization presents itself as a lasting and inevitable phenomenon, having reframed the functioning of the world economic scene through the removal of economic, social and cultural borders, greater competition and the emergence of new challenges on a global scale. Since 2000, the Moroccan economy has shown continuous and sustainable growth with low inflation levels. This growth finds its sources in tourism, private investment and attempts at industrialization, with a strong dependence on the agriculture sector. This trend has been accompanied by an increasing openness of the Moroccan economy through the intensification of trade flows and outward and inward foreign direct investment (FDI).

Statistics show that Moroccan outward FDI reached \$360 million in 2020, representing 28 per cent of its inward FDI in 2022 (Morocco, Exchange Office, 2022). In addition, the African continent receives the most Moroccan outward FDI (67.6 per cent in 2020, 63.2 per cent in 2019 and 49.4 per cent in 2018), making Morocco the second largest African investor in sub-Saharan Africa after South Africa and the leading African investor in West Africa (Dafir, 2021). Furthermore, at the sectoral level, the presence of Morocco in sub-Saharan Africa is more marked in the banking sector, with a share of 40 per cent of the total stock in sub-Saharan Africa, followed by telecommunication (34 per cent), insurance (13 per cent) and industry (6 per cent) (Morocco, Exchange Office, 2017).

According to Toumi (2009), the location of FDI could be explained in part by cultural considerations that may influence the decision-making of multinational enterprises (MNEs). Besides shared history and traditions, these considerations could cover other issues, such as a shared language, an essential factor for understanding the behaviour of MNEs and their location choice. Moreover, and in the same perspective, Ghemawat (2001) emphasizes the concept of distance by developing the CAGE (cultural, administrative, geographic and economic) model as a strategic managerial method to assess and evaluate the differences between locations when opting for internationalization so as to better execute the internalization process abroad. In addition to the geographical distance, Ghemawat (2001) added the administrative, economic and cultural distances and other proxy aspects.

According to Hymer (1976), every MNE suffers from foreignness liabilities, which consist of all the obstacles and difficulties to be overcome when carrying out FDI in a host country. Therefore, the weight of liabilities of foreignness is a factor that influences the decision of MNEs in locating activities abroad. In other words, the success of the internationalization of the MNE scrupulously depends on the human side, of which the language spoken by the country of origin and the host country is the main element to ensure good communication, establish trust and acquire relevant information. Denk et al. (2012) and Rana and Elo (2017) defend

that hypothesis by arguing that the liabilities of foreignness constitute the additional costs that MNEs have to face relative to their local competitors when operating in international markets and foreign locations.

In particular, one could say that linguistic distance increases foreignness liabilities because of the uncertainties in cross-border operations with economic agents of the host country, and especially FDI, which is more sensitive to the difference in language than are other modes of internationalization such as franchising and trade (Berry et al., 2010). The higher the linguistic distance, the higher the information costs, which makes it harder to build the legitimacy of the MNE in the host country. To this end, ignoring domestic language complicates knowledge transfer to the local subsidiary and hinders verbal communication, which deteriorates the performance of the MNE international network and hence the flow of FDI (Denk et al., 2012; Elo and Ivanova-Gongne, 2021; Rana and Elo, 2017; Piekkari et al., 2022).

As a result, linguistic distance proves to be a factor that MNEs consider before any location decision, where empirical studies support the hypothesis that language has a specific effect on the location of FDI, although it is not the most relevant determinant of outward FDI (Ristolainen et al., 2021; Westney et al., 2022).

The first to mention language as a location factor is Kogut and Singh (1988), in developing a new way of operationalizing cultural distance; however, the authors did not consider language as an independent factor. Marschan-Piekkari et al. (1997) called language the forgotten factor in the international business literature (Charles and Marschan-Piekkari, 2002; Piekkari and Zander, 2005; Piekkari et al., 2014). Luo and Shenkar (2006) explained that researchers did not give much attention to linguistic distance because they viewed language as a dimension of culture, which explains why it was unnecessary to focus on language as an explanatory factor of internationalization isolated from culture. Therefore, the research gap in the context of this paper is the insufficiency of the literature dealing with the effect of shared language on the FDI location choices of emerging countries. This paper aims to fill this gap and contribute to knowledge in the field by determining the effect of language distance between Morocco and host countries on Moroccan MNEs' location choices through their FDI, using an empirical model and a panel econometric estimation method. In addition, the paper adds a novel contribution by analysing decisions by non-English-speaking firms in the context of the hegemony of the English language in international business. In Morocco, the linguistic context is multicultural. It is a territory in which several languages coexist. This linguistic diversity is confirmed by the presence, alongside Arabic and Berber – the mother tongues spoken by the vast majority of Moroccans – of other lingua franca languages linked to colonial history and globalization. More than 69 per cent of the population speaks French, the first foreign language established in Morocco; Spanish speakers follow.

English, spoken by more than 14 per cent of Moroccans, established itself as a contemporary language of openness, explained by the trend of cultural standardization on a global scale.

The main objective of this study is to inform public decision makers in host and home countries of the role of language as a determinant of FDI location choice and to provide them with concrete results that enable them to understand the issue of linguistic distance and its policy implications where decision makers in the home country have to promote outward FDI and decision makers in the host country have to attract inward FDI.

The rest of the paper is organized as follows: the second section presents the linguistic context in Morocco, and the third section lays out the theoretical background and review of the literature regarding the effect of language on FDI. The fourth section explains the research design and the empirical method. The fifth section discusses empirical results, and the sixth section presents the conclusion of the study and its policy implications.

2. Context of languages in Morocco

The linguistic configuration of Morocco is has continuously evolved in parallel with social, economic and political transformations. The complexity of these transformations has led to the emergence of a plurilingual country (Daniel and Ball, 2009).

Indeed, changes in language policy in Morocco have led to the coexistence of several languages, namely Arabic, Amazigh (Berber), French, English and Spanish, albeit with significant differences in use and institutional recognition. The Constitution of 2011 revised the status of languages. It formalized the Amazigh language, after centuries of stigmatization and separation; however, the use of Amazigh remains limited to Berber speakers, and it could not be institutionalized, despite the efforts made to integrate it into the education system as well as the efforts of the Royal Institute of Amazigh Culture. According to the General Census of Population and Housing (RGPH), only about 27 per cent of the population speaks Amazigh while more than 90 per cent speak Arabic.

Standard Arabic remains the official language of Morocco. Although it is a language learned at school, it is also the language of the media, the press and religious rituals. It is the main base of the Arabic commonly spoken in Morocco (Darija) alongside Amazigh, French and Spanish. French was integrated into the range of languages in Morocco during the French Protectorate at the beginning of the 20th century. It is the only originally foreign language that is read, written and spoken in the linguistic landscape in Morocco. Its omnipresence in the media, public administration and the economy, as well as education, is justified by its roots in the language practices

of Moroccans, as well as by its institutionalization, distinguished by its coexistence with Arabic. According to the General Population and Housing Census,¹ French is written and spoken by almost 70 per cent of the population.

Spanish shares with French the same reason for existence in the country, imposition during the colonization era by France and Spain in the first half of the 20th century (Daniel and Ball, 2009). The presence of Spanish is limited: it is much more present in the northern and Rif provinces and in the southern provinces because of the Spanish colonization of these areas. Various surveys and statistics show that the share of the population that speaks Spanish does not exceed 10 per cent.

English is the only language spoken in Morocco that does not have a colonial source. Its expansion is explained by the effects of globalization and the growing openness of Morocco.

3. Theoretical framework and literature review

3.1 Language distance in firm internationalization theories

This paper argues that linguistic proximity or distance explains FDI location choice and that its fundamental theoretical framework is grounded in firm internationalization models (Ghemawat (2001)). Dunning (1988) introduced the OLI (ownership, location, internalization) paradigm and asserts that sociocultural and institutional factors constitute elements of specific advantages of host countries (*Location*) that maximize firm-specific advantages (*Ownership*). The OLI paradigm explains a firm's internationalization by considering determinants of FDI location choice. Making a successful internationalization (*I*) requires finding a country (*Location*) that has advantages that allow the MNE to maximize its specific advantages (*Ownership*). To identify location-specific advantages to location, Dunning (1988) proposed a paradigm called Environment-Systems-Policies (ESP): "Systems" refers to social and cultural factors within host economies that may attract foreign investors. As this paper deals with the language factor, we could say that linguistic distance is one of the sociocultural factors strengthening foreignness liabilities. Hence, we consider linguistic similarity between the host and the home country as a comparative advantage, as it reduces market imperfections (Denk et al., 2012; Piekkari et al., 2022). A low linguistic distance reduces transaction costs caused by differences in social norms and business climate and by informational asymmetry. In addition, it reduces market risks related to consumer choices and behaviour (Denk et al., 2012; Piekkari et al., 2014; Rana and Elo, 2017).

¹ Morocco, Haut-Commissariat au Plan, "Présentation des principaux résultats du RGPH 2014", 13 October 2015, <https://rgph2014.hcp.ma>.

Firm internationalization theories help us to understand the behaviour of FDI depending on a firm's own experiences and motives. In this matter, Johanson and Vahlne (1977) developed the Uppsala model, according to which the internationalization process is sequential and linear. According to the authors, the success of firm internationalization through horizontal FDI depends on experience and knowledge gained about local customs and understanding of domestic consumer behaviour. In other words, MNEs internationalize to host countries where information asymmetry and psychic distance are non-significant. Johanson and Vahlne (1977) defined psychic distance "as the sum of the factors preventing the flow of information from and to the market. Examples are differences in language, education, business practices, culture and industrial development" (Johanson and Vahlne, 1977, p. 64). Those factors may limit the MNE from acquiring more relevant information about the sociocultural structure of the host country, worsen the information asymmetry and cripple the internationalization process. We argue that language is one of the psychic distance factors. Our study suggests that language plays a significant role in narrowing psychic distance, which explains the positive effect of language similarity on FDI. Nevertheless, the Uppsala model focuses only on horizontal and market-seeking FDI, sensitive to consumer choices and behaviour. We argue that vertical FDI is also affected by psychic distance.

Johanson and Mattsson (1987) developed the social network model, in which firm internationalization is a cumulative process during which relationships with foreign actors are established and continuously maintained to achieve objectives. Therefore, internationalization success depends more on the ability to create a network than on a specific advantage. In other words, the international process is a product of interactions, development and maintenance of relationships over time: a firm's internationalization is the product of a social network internationalization.

The social network theoretical model suggests that the firm is part of several social networks. By establishing financial, technological and market relations, the firm gradually widens its networks outside national borders. This network approach focuses on the issues and opportunities associated with establishing relationships with foreign partners, such as clients, suppliers and governments.

The social network theoretical model helps us understand the effect of linguistic distance on firm internationalization success and FDI location choice. The international business literature has documented the economic benefits of linguistic similarity. The existence of the same language for expatriates and local agents in a host country strengthens interpersonal relationships and friendships that promote communication (Fan et al., 2017). In addition, theoretical literature such as the social identity theory and self-categorization has highlighted the difficulties that expatriates face when information asymmetry and communication problems are significantly relevant, especially when employees have different social identities than expatriates (Makela et al., 2012). In other words, higher linguistic proximity

means that expatriates encounter fewer problems related to the management of a local branch than they would in a linguistically distant country.

The theory of social networks explains the contribution of linguistic proximity to internationalization success through elements of personal relationships such as shared language. The associated interactions of expatriate executives with local entities can extend to employees, suppliers, customers, competitors and governments (Gao, 2003). Indeed, sharing the same language is an essential categorical factor for establishing social networks. Therefore, the importance of language-based social networks lies in their intermediation between expatriate executives and local agents to facilitate the exchange and sharing of the most relevant information to streamline economic operations linked to buying, selling and acquiring relevant information. All these assets reduce foreignness liabilities.

On the basis of the last two models, Dunning and Lundan (2008) revisited the OLI paradigm, admitting that FDI is differently sensitive to the existence of a language distance depending on its type and motivation. The types of FDI motivation, from most sensitive to least sensitive to language, are as follows:

- **Market-seeking FDI:** These investments are highly motivated by common language insofar as language facilitates the adaptation of products to the tastes or needs of local consumers. Plus, when it comes to commercial customs practices, legal procedures and marketing strategies, not being familiar with the local language puts the MNE at a disadvantage relative to local firms. This type of FDI is associated with horizontal FDI. In addition, there is a thesis that language creates the market. This reverse causality is defended by the anti-globalization thesis of the “McDonaldization” of the world economy, which argues that American and British MNEs use the English language to create new markets and consumers, which by default eliminates local competition and imposes the tastes and habits of the English-speaking world on the host country (Heller, 2010).
- **Efficiency-seeking FDI:** These investments are less sensitive to language insofar as the MNE can make its investments in a country that does not have a common language. According to Marchan-Piekkari et al. (1997), local employees of the MNE may act passively towards their colleagues from the country of origin and may turn to translators within the firm to convey their messages. Communication obstacles can have consequences for the efficiency and performance of the firm: after having carried out a merger and acquisition, linguistic distance can prevent the MNE from effectively monitoring and understanding the post-acquisition activities of the firm and its personnel and how to operate successfully in the host country, which can lead to behavioural uncertainty (Dow et al., 2016). As a result, MNEs invest in countries that are geographically, culturally and linguistically close.

- Strategic asset-seeking FDI: With these investments MNEs opt to develop strategic resources in a foreign country and exploit competitive advantages such as business intelligence, technological know-how and management expertise. Thus, the existence of local employees with language skills and appropriate techniques can make FDIs slightly language-sensitive (Heller, 2010).
- Natural resource-seeking FDIs: These investments are the least sensitive to language because natural resources exist only in certain countries. If an MNE wants to exploit or monopolize these resources, it has to invest in them even if the host country is linguistically distant.

3.2 Mediating factors between language distance and FDI location choice

The literature shows an indirect effect of distance or proximity and FDI location choice through various transmission channels, as follows:

Language distance deteriorates communication: First of all, according to Harzing and Pudelko (2013), when an MNE develops internationally by investing in a new territory, it encounters specific challenges to overcome, which may include a language barrier, which is a form of communication barrier that complicates and slows the process of transmitting verbal messages and hence increases the costs of communication (Krone et al., 1987). These communication barriers are of two types: geographical and linguistic. Geographic barriers are caused by the physical distance between the home country and the host country, which increases the opportunity cost of direct face-to-face communication between home- and host-country employees. In addition, it may increase the direct costs of transmitting messages between these remote employees using tools such as telephone, video calls and mail (Welch and Welch, 2008). Therefore, a language barrier occurs when a common language does not exist between expatriates and local employees, making repeated verbal communication harder. Monks (1996) conducted an empirical analysis of nine subsidiaries owned by a French MNE based in Ireland. According to the investigation, a human resources manager of a subsidiary admitted that the local Irish employees rarely give special attention to documents and notes received in French. A lack of language proficiency can lead to distractions for employees because they have to translate instead of focusing on their assigned tasks. Marschan-Piekkari et al. (1997), conducted a study on a Taiwanese branch of an English-speaking MNE, in which one of the Taiwanese managers declared that despite his low mastery of the English language, he was responsible for all communication between the subsidiary and the parent firm. However, because poor translation can alter the intended meaning of a message and sabotage the functioning of the MNE and its subsidiary in the host country, it can negatively

affect the performance of the MNE and its international development. To this end, language barriers incur additional costs of verbal communication so that employees understand messages transmitted by various means (Welch and Welch, 2008). Among the means often used is the use of expatriate translators who master the language of the host-country company. In addition, language barriers manifest in two components, maternal language barriers and foreign language barriers. According to Dow and Karunaratna (2006), maternal language barriers occur when home-country employees and host-country employees are not proficient in each other's native language, which means that even basic verbal messages can lead to misinterpretation and misunderstanding. Therefore, the smaller the share of employees from the home country and from the host country who can understand each other's maternal language and the more their languages differ, the higher the maternal language barrier and the costs of communication. Similarly, foreign language barriers arise if the employees from the host country do not master the lingua franca used within the firm of the country of origin. As a result, the less the lingua franca is used in the home country and mastered by employees from the host country, the higher the barrier to communication .

Language proximity indicates similar culture: Several authors argue that the linguistic distance between the MNE's country of origin and the host country is not only a question of ignorance of the linguistic system but also a matter of cultural dimension (Holden, 1989). In other words, the absence of a common language between the expatriates of the MNE and the local employees affects not only the understanding of the transmitted messages but also the understanding of the local culture, like the social norms and the preferences of local consumers. In addition, Ford (1989) argues that psychologically close foreign markets share a common language with the home economy and hence the same cultural traits. So, the degree of success in firm internationalization depends on mastery of the local language. In other words, the more linguistically distant the foreign market is from the country of origin of the investment, the more that ignoring the local language hinders intercultural communication and can prevent the MNE from penetrating a new foreign market (Barner-Rasmussen et al., 2014; Fredriksson et al., 2006; Ivanova-Gongne et al., 2022a; Ivanova-Gongne et al., 2022b; Swift, 1991).

Language similarity boosts trust: According to Xu and Shenkar (2002), MNEs must acquire institutional legitimacy in the host country to understand appropriate behaviour and align its practices to the host country's social norms. In particular, linguistic distance can complicate communications between the MNE and economic agents of the host country (employees, suppliers, customers) and result in filtering and distortion of the messages transmitted. This miscommunication and misinterpretation could therefore produce persistent distrust of the host country towards the MNE (Kostova and Zaheer, 1999) and harm its efforts to build legitimacy. Consequently, the caution of MNEs when faced with a significant

language barrier may explain their decision to localize their FDI. Furthermore, Welch et al. (2005) claim that trust is hard to establish when stakeholders do not share a common language.

Language similarity as a signalling effect: Buckley et al. (2005) argue that communication and the exchange of information between actors in the host country and country of origin are harder to establish if the language spoken in them differs and that therefore information asymmetry will make management of the subsidiary more difficult for managers from the country of origin, which can harm performance. Linguistic knowledge thus influences a firm's internationalization process, which helps decision makers discover exploitable opportunities in the host country. So, knowing the domestic language makes feasible both internationalization and achievement of the projected performance, enabling the company to generate more FDI in its successful subsidiary. This increase in FDI constitutes a signalling effect for other MNEs and causes an additional increase in FDI. And vice versa, poor performance resulting from ignorance of the local language reduces the signalling effect for other direct investors. By studying the cases of three MNEs, Makela et al. (2007) showed that sharing a common language (maternal language or lingua franca) strengthens ties and interpersonal relationships in a foreign subsidiary, which can lead to improved employee performance, which, again, can make other MNEs more aware of similar situations.

Language proximity ameliorates information asymmetry: Hau (2001) studied a sample of 756 German financial operators (traders) located in 23 cities in 8 European countries. He found that German operators working in non-German-speaking cities make less profit than those in German-speaking cities. Along the same lines, he concluded that German traders working in German-speaking cities generate more profit than their colleagues who do not speak German. The author explained this result as showing that sharing a common language reduces informational asymmetry in business networks, including information on suppliers, distributors, equipment costs and market conditions. These elements are essential to analysing the projected profitability of an investment. In addition, a foreign investor would want to secure enforcement of contracts and protection of property rights. However, the absence of a common language as well as institutional and cultural distance can create barriers to investment. Anwar (2009) concluded that outward FDI from India to developing countries is primarily market-seeking and asset-seeking. He found that such FDI is more oriented towards countries where English is a second language, like in India. Also, informational asymmetry is relevant after mergers and acquisitions because linguistic distance makes it difficult for MNEs to manage local subsidiaries without acquiring feedback on the internal environment from the previous managers of the subsidiary. In addition, linguistic distance negatively influences the management of employees in the local subsidiary and communication with local suppliers and customers.

Language barriers can create frustration, conflict, mistrust and resistance between foreign employees and local ones (Vidal Suárez and López-Duarte, 2013). All these difficulties arising from the liabilities of foreignness contribute to inflating the transaction costs related to FDI.

3.3 Empirical studies of the effect of language on FDI

Empirical studies have found an investment bias in favour of countries speaking the same language. Demirbag et al. (1998) concluded that outward FDI from Turkey favours Central Asian countries where Turkish is spoken. Lundan and Jones (2001) argue that the English language shared by Commonwealth countries explains the increase in bilateral FDI between them because of the reduction in costs caused by the foreignness liabilities. Goldberg et al. (2005) studied the role of the English language in the movement of inward and outward FDI for the United States. They concluded that English as a global language positively affects the country's outward FDI but does not affect its inward FDI. Chiswick and Miller (2005) found that the existence of an official language linguistically close to English is more likely to increase United States FDI. Aggarwal (2008) found that FDI inflows to India come from English-speaking countries. Hejazi and Ma (2011) examined the impact of seven languages (English, Dutch, French, German, Italian, Spanish and Swedish) on bilateral FDI stocks between 30 member countries of the Organisation for Economic Co-operation and Development (OECD). They used English as a global language (*lingua franca*) dummy variable and seven dummy variables to signify sharing the same mother tongue. The results indicate that sharing a common maternal language positively affects FDI and that sharing English as a *lingua franca* has a superior positive impact compared with other languages. Oh et al. (2011) analysed outward FDI from 28 OECD member countries to 115 countries (28 OECD countries and 87 non-OECD countries) using linguistic dummy variables (English, French, Spanish and Arabic) and Melitz's index (2008), which measures the degree of direct communication by calculating the percentage of people in a country who can communicate directly through a given language. The authors found that the shared mastery of a language positively affects flows of outgoing FDI. Konara and Wei (2014) studied the case of bilateral FDI between 29 OECD countries and 111 partner countries from 1986 to 2008. Their results show a significant negative relationship between linguistic distance and bilateral FDI flows. In other words, the less different the country is linguistically, the more it tends to receive FDI flows. Furthermore, they found a dynamic negative effect of language on bilateral FDI flows, as this effect increases over time. Holtan and Brynsetesen (2019) studied inward FDI in five Southeast Asian countries (Indonesia, Malaysia, the Philippines, Singapore and Thailand). They concluded that a global language holding official status in a country does not contribute more to the attractiveness of FDI in that country. Feng et al. (2019) have studied the effect of various aspects

of language on bilateral FDI using the gravity model. They found that bilateral FDI tends to be higher between countries that share the same official language, native languages or linguistically proximate languages. The authors explain the positive effect of sharing native language by ethnic ties and trust as the strongest predictor of FDI. However, this effect is valid only for English-speaking countries, not for countries sharing the same non-English or European native languages.

4. Research design and methodology

4.1 Sample description

Our empirical study works with panel data of 54 countries² during the period 2007–2021. The sample selection excluded countries that accounted only for a minor share of Moroccan outward FDI, with a threshold of MAD 1 million of outward stock of FDI.

4.2 Variables description and conceptual model

We aim to identify the effect of common languages on the location decision of Moroccan firms in host countries. FDI is the practical proxy variable usually used when investigating MNE location choice. In particular, the variable used for the empirical analysis is the flow of outward FDI of Moroccan investors.

For the main explanatory variables related to common languages, we use four languages. The first is standard Arabic (*Ar*), the official language spoken in Morocco. The other languages are foreign languages commonly spoken in Morocco, which are French (*Fr*), English (*Eng*), and Spanish (*Sp*). We measure the linguistic distance or proximity by the percentage of the population that speaks the language in the host country.

Our data on Moroccan FDI are mixed and do not distinguish between vertical and horizontal FDI, which leads us to use the knowledge-capital model (KCM) introduced by Markusen and Venables (1998). That conceptual model aims to identify the type of FDI by computing other location factors of FDI: trade tariffs,

² Algeria, Andorra, Austria, Bahrain, Belgium, Benin, Brazil, Burkina Faso, Cameroon, the Central African Republic, Chad, Congo, Côte d'Ivoire, the Democratic Republic of the Congo, Denmark, Egypt, France, Gabon, Ghana, Germany, Guinea, Guinea-Bissau, India, Jordan, Kenya, Kuwait, Lebanon, Luxembourg, Madagascar, Mali, Malta, Mauritius, Mauritania, Monaco, Niger, Nigeria, Norway, the Netherlands, Portugal, Qatar, Rwanda, Saudi Arabia, Senegal, Singapore, Slovakia, Spain, Sweden, Switzerland, the United Republic of Tanzania, Togo, Tunisia, Uganda, the United Arab Emirates, the United Kingdom and the United States.

market size, distance and factor endowment. In other words, location factors explain the type of FDI. According to the KCM, horizontal FDI is affected positively by market size, tariffs and geographical distance. Vertical FDI is affected negatively by distance and tariffs and positively by input endowment. The variables included in the empirical model are described in table 1.

Table 1. Description of variables

Variable name	Label	Detailed description and measurement	Data source
Foreign direct investment	FDI	Flow of outward investment where the equity ownership of at least 10 per cent, reflects a lasting interest by a resident in one economy in a firm resident in another economy (OECD, 2008), measured in current United States dollars	Morocco, Exchange Office (2022)
Arabic/French/Spanish/English languages	Ar/Fr/Sp/Eng	The percentage of the population in the host country who speak the language	Marcoux et al. (2022); Marcoux et al. (2022); WorldData.info ^a
Geographical distance	Dist	The geographical distance between Morocco and host countries in kilometers, as the direct linear distance between the centres of mass (or geographical centres)	Distance Calculator ^b
Revealed comparative advantage	RCA	Proxy for factor endowment of host countries using the RCA, based on the Ricardian trade model, to indicate the competitiveness of a country that has on other countries, the RCA being the exports share of a product <i>j</i> in the total exports of a given country divided by the exports share of the product in the total exports of a zone reference	World Integrated Trade Solution ^c
Weighted average tariffs effectively applied	Tar	Average of effectively applied rates weighted by the product import shares corresponding to each partner country	World Integrated Trade Solution ^d
Gross domestic product	GDP	Proxy for market size, measured by GDP at purchaser's prices in current United States millions of dollars, indicating the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products; calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources	World Bank ^e
Human capital index	HCI	A measure of labour productivity based on health and education systems, with the final index score ranging from zero to one and measuring the productivity as a future worker of a child born today relative to the benchmark of full health and complete education	World Bank ^f

Table 1. Description of variables (Concluded)

Variable name	Label	Detailed description and measurement	Data source
Ease of doing business	DBI	Simple average of all sub-indicators (starting a business, dealing with construction permits, getting electricity, registering property, getting credit, protecting minority investors, paying taxes, trading across borders, enforcing contracts and resolving insolvency), ranging from 0 for the worst business climate to 100 for the best business climate	World Bank ^e
Institutional quality	IQ	Proxy for institutional quality, using the rule of law index, which reflects agents' confidence in abiding by rules of society regarding contract enforcement, property rights protection, police effectiveness, and judiciary system; index range between -2.5 for weak rule of law and 2.5 for strong rule of law	World Bank ^h

Source: Authors' elaboration from data accessed on 15 March 2022.

^a www.worlddata.info/languages/english.php.

^b https://distancecalculator.globefeed.com/Distance_Between_Countries.asp.

^c <https://wits.worldbank.org>.

^d <https://data.worldbank.org/indicator/NY.GDP.MKTP.CD>.

^e <https://databank.worldbank.org/metadataglossary/worldwide-governance-indicators/series/RL.EST>.

^f <https://databank.worldbank.org/source/human-capital-index>.

^g <https://archive.doingbusiness.org/en/data>.

^h <https://databank.worldbank.org/source/worldwide-governance-indicators>.

4.3 Empirical model

To identify the effect of language distance on Moroccan choice for FDI location, we formulate the general hypothesis using the gravity model to measure the sensitivity of Moroccan outward FDI flows to linguistic distance (Feng et al., 2019). Thus, the dependent variable is FDI regressed by the independent variables relative to the language within the sample countries. In addition, we use control variables within the conceptual framework of KCM to understand the investment behaviour of Moroccan MNEs. The empirical model is as follows:

$$FDI_{it} = A \cdot Dist_{it}^{\beta_1} \cdot RCA_{it}^{\beta_2} \cdot GDP_{it}^{\beta_3} \cdot Tar_{it}^{\beta_4} \cdot HCl_{it}^{\beta_5} \cdot DBI_{it}^{\beta_6} \cdot IQ_{it}^{\beta_7} \cdot Ar_{it}^{\beta_8} \cdot Fr_{it}^{\beta_9} \cdot Sp_{it}^{\beta_{10}} \cdot Eng_{it}^{\beta_{11}} \cdot u_{it}$$

After the logarithmic transformation:

$$\begin{aligned} \log(FDI_{it}) = & \alpha_{it} + \beta_1 \log(Dist_{it}) + \beta_2 \log(RCA)_{it} + \beta_3 \log(GDP)_{it} + \\ & \beta_4 \log(Tar)_{it} + \beta_5 \log(HCl)_{it} + \beta_6 \log(HDI)_{it} + \beta_7 \log(IQ)_{it} + \beta_8 Ar_{it} \\ & + \beta_9 Fr_{it} + \beta_{10} Sp_{it} + \beta_{11} Eng_{it} + \varepsilon_{it} \end{aligned}$$

FDI_{it} denotes the flow of outward Moroccan FDI in millions of dirham, converting to dollars at an annual exchange rate,³ into host country i in year t . $Dist_{it}$ denotes the geographical distance in kilometers between Morocco and host country i . RCA_{it} indicates the revealed comparative advantage of country i in year t . GDP_{it} denotes the gross domestic product in current United States millions of dollars in host country i in year t . Tar_{it} indicates the weighted average tariffs effectively applied on Morocco exports by host country i in year t . HCI_{it} indicates the human capital index of country i in year t . DBI_{it} indicates the ease of doing business score of country i in year t . IQ_{it} indicates the institutional quality of country i in year t . Ar_{it} , Fr_{it} , Eng_{it} and Sp_{it} indicate the percentage of the population speaking the language of country i in year t ; α_{it} denotes the specific fixed effect of each country to control for the omitted factors relatively stable over time; and ε_{it} is the normally distributed error term.

The general hypothesis is that the greater the percentage of the population within the host country who speak the same language as Morocco, the more FDI is attracted to that host country.

4.4 Estimation method

We chose the robust least squares (RLS) estimation method because ordinary least squares estimators are much less robust under the existence of observations outside the norm for our regression model. Thus, outliers would not accurately reflect the underlying statistical relationship between the dependent and explanatory variables. In other words, outliers tend to pull the least squares fit too far in their direction by receiving much more weight than they deserve.

Although the weight attached to each observation is supposed to be, on average, $1/n$ in a data set within observations, the outliers may receive considerably more weight, leading to distorted estimates of the regression coefficients. This distortion results in outliers that are difficult to identify since their residuals are much smaller than they would be if the distortion were not present.

Thus, the estimators of RLS reduce the influence of these outliers to provide better data by down-weighting the outliers, which makes their residuals larger and easier to identify. In particular, we use the M-estimation technique elaborated by Huber (1973) that addresses dependent variables, i.e. FDI outliers, where there are large residuals because its values differ noticeably from the regression model norm. Consequently, robust weighted least squares (RWLS) provides an alternative to

³ Considering the low average rate of inflation in Morocco between 2008 and 2022, at 1.57 per cent, the conversion of dirhams to dollars at an annual exchange rate would not be biased during the estimations.

other least squares estimation methods by requiring less restrictive assumptions regarding normality and homoscedasticity, using the Welsch function as the best of other weight functions (Yulita et al., 2018).

5. Empirical result and discussion

Before estimating the empirical model, table 2 presents the descriptive statistics of the variables.

Table 2. Descriptive statistic of model variables

Variable	Mean	Median	Maximum	Minimum	Standard deviation	Number of observations	Jarque-Bera statistic
FDI	12.24	0.23	541.70	0.00	41.41	810	241 002.30***
Dist	5 734.94	3 955.50	71 658	940.00	9 403.14	810	6 4637.47***
RCA	128.99	131.00	199.00	52.00	29.49	459	24.73***
GDP	724 000	47 300	21 400 000	697	2 450 000	755	61 573.09***
Tar	5.37	1.93	37.96	0.00	6.57	505	264.48***
HCI	0.56	0.55	0.89	0.29	0.17	188	16.47***
DBI	61.10	61.30	89.50	26.90	15.40	549	28.99***
IQ	0.19	-0.09	2.445	-1.85	1.16	742	59.44***
Ar	0.16	0.00	0.99	0.00	0.31	810	578.83***
Fr	0.26	0.15	0.97	0.00	0.27	810	181.28***
Eng	0.37	0.24	0.98	0.01	0.35	810	91.65***
Sp	0.04	0.00	0.99	0.00	0.06	810	25 691.52***

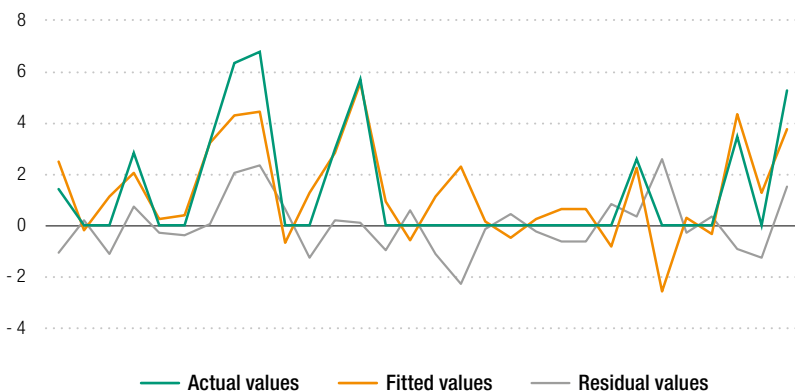
Source: Authors' estimation.

Note: ***, **, * indicate a significant level at 1, 5 and 10 per cent, respectively.

The mean and the median of the variables are notably far apart, which indicates the non-random distribution of these variables. In addition, Jarque-Bera's statistic confirms by rejecting the null hypothesis that the variables are distributed randomly at the significance level of 1 per cent. Those results indicate that we need the method estimation of RLS that deals with normality issues besides heteroscedasticity. In addition, the minimum values of some variables are inferior to 1, which constitutes an issue when conducting logarithmic transformation. Thus, we add +1 when transforming *FDI*, *Tar*, *HCI*, *Ar*, *Fr*, *Eng* and *Sp* and +3 to *IQ*, so all the values are superior to 1.

Before interpreting the empirical estimations, we check the robustness of the model and its significance. We re-run the model using a colonial heritage dummy (1 = French, 0 = countries not colonized by France) instead of the language variables. The findings show that countries that share a French colonial history are more likely to attract Moroccan outward FDI than those with other colonial heritages.⁴ The results tally with those of our model with the language variables (table 6). We also test for heteroscedasticity, which is the central bias that the model encounters regarding spurious regression. As explained in the previous section, the RLS method allows us to produce unbiased estimators and reliable results without heteroscedasticity. In other words, heteroscedasticity increases the variance of the coefficient estimates, which could falsely declare them to be statistically significant. Thus, to eliminate the problem of heteroscedasticity, we use weighted regression, in particular RWLS, by assigning a proper weight to each observation based on the variance of its fitted value. In other words, RWLS gives small weights to outliers with higher variance, to shrink their squared residuals. Heteroscedasticity is present when there is an unequal scatter of residuals or error terms, i.e. a systematic change in their spread over the range of measured values. Its detection can be conducted by observing the residual, actual and fitted plots, as presented in figure 1.

Figure 1. Scatterplot of residual, actual and fitted values of the dependent variable



Source: Authors' estimation.

⁴ The results are available from the authors upon request.

We notice how the residuals are distributed normally and spread randomly. This confirms the absence of heteroscedasticity and autocorrelation in the model. In addition, the actual and fitted values of $\text{Log}(FDI+1)$ are aligned with each other. That indicates that the model is robust and fits well the observed data. We use the correlogram for residuals and Q-statistic to check if there is autocorrelation between residuals and supposed white noise. Table 3 presents the results.

Table 3. Q-statistic results

Lag specification	AC	PAC	Q statistic	P-value
1	0.105	0.105	0.3675	0.544
2	-0.050	-0.062	0.4548	0.797
3	-0.169	-0.159	1.4730	0.689
4	-0.051	-0.020	1.5705	0.814
5	0.098	0.093	1.9376	0.858
6	-0.164	-0.223	3.0080	0.808
7	0.076	0.125	3.2473	0.861
8	-0.017	-0.027	3.2593	0.917
9	0.002	-0.050	3.2595	0.953
10	-0.050	-0.041	3.3804	0.971
11	-0.076	-0.024	3.6696	0.979
12	0.018	-0.047	3.6876	0.988
13	0.031	0.060	3.7406	0.994
14	0.019	-0.032	3.7611	0.997
15	0.012	0.018	3.7696	0.998
16	-0.062	-0.065	4.0313	0.999

Source: Authors' estimation.

The results show that all Q statistics are non-significant for all lag specifications. In other words, the Q test does not reject the null hypothesis that there is no autocorrelation of errors. It confirms the previous finding that the distribution of residuals is random. In the next step, we investigate the normality assumption; table 4 presents the results.

Table 4. Normality tests

Mean	Median	maximum	Minimum	Skewness	Kurtosis	Jarque-Bera	Probability
0.016297	0.086663	2.662827	-2.256701	0.466132	3.133710	1.108743	0.574433

Source: Authors' estimation.

Starting with the Jarque-Bera test, it seems that we cannot reject the null hypothesis that the residuals are normally distributed. In addition, the value of skewness indicates that the probability distribution of errors is asymmetrical, which confirms the random distribution of error terms. And, the value of the Kurtosis statistic equals 3, which indicates that the distribution is mesokurtic.

The last assumption is that there no collinearity between explanatory variables. Collinearity between the predictors makes their coefficients less exact, causes estimation biases and creates overfitting problems. In other words, highly correlated independent variables make it hard to select the variables for the model because changing explanatory variables could affect the value of coefficients, hence making them unstable and difficult to interpret. Thus, checking multicollinearity makes it possible to avoid such estimation problems. We plot the covariance matrix of all independent variables as presented in table 5.

The results show that there is no significant association between the explanatory variables, which indicates the absence of collinearity between these variables.

The estimates show that sharing the Arabic language, the official language in Morocco, between Morocco and host countries is an FDI location factor. In particular, the variable *Ar* positively affects Moroccan FDI at the significance level of 1 per cent. An increase of 1 per cent in the Arabic-speaking population of the host country leads to an increase in FDI outflows from Morocco by 0.64 per cent. Therefore, having Arabic as a common language makes it easier for MNEs to adapt to the host economy because of cultural proximity. Equally, the estimates show that sharing the French language – the most spoken foreign language in Morocco – between Morocco and host countries is an FDI location factor. In particular, the variable *Fr* positively affects Moroccan FDI at the significance level of 1 per cent. An increase of 1 per cent in the French-speaking population of the host country causes an increase in FDI outflows from Morocco of 4.15 per cent. Having French as a common language makes it easier for Moroccan MNEs to adapt to the host economy, mainly to avoid communication barriers and institutional distance.

However, the results show that sharing the Spanish language is not an FDI location factor as the variable *Sp* has no significant effect on FDI. Having Spanish as a common language does not matter for Moroccan investors because of its limited use in the Moroccan educational system and other public institutions.

Table 5. Coefficient covariance matrix

	LOG(Dist)	LOG(RCA)	LOG(PIB)	LOG(Tar)	LOG(HC)	LOG(DB)	LOG(IQ)	Ar	Fr	Sp	Eng
LOG(Dist)	1	0.003809	0.000715	-0.000124	0.004380	-0.010604	0.003357	-0.002138	0.000768	0.000178	-0.004285
LOG(RCA)	0.003809	1	-0.004648	0.001401	0.075442	-0.067582	0.011693	-0.009556	-0.015188	-0.006748	-0.011406
LOG(PIB)	0.000715	-0.004648	1	-0.000167	-0.012984	0.000729	0.001114	0.001490	0.000788	-0.003737	-0.003080
LOG(Tar)	-0.000124	0.001401	-0.000167	1	0.013975	0.001332	-0.000263	0.001124	-0.002167	0.001174	-0.002186
LOG(HC)	0.004380	0.075442	-0.012984	0.013975	1	-0.272678	-0.116632	0.017438	-0.053759	-0.029936	-0.012197
LOG(DB)	-0.010604	-0.067582	0.000729	0.001332	-0.272678	1	-0.089382	-0.003643	0.027432	0.027066	0.023732
LOG(IQ)	0.003357	0.011693	0.001114	-0.000263	-0.116632	-0.089382	1	0.001452	-0.011720	-0.007384	-0.027652
Ar	-0.002138	-0.009556	0.001490	0.001124	0.017438	-0.003643	0.001452	1	0.007025	0.006673	0.007848
Fr	0.000768	-0.015188	0.000788	-0.002167	-0.053759	0.027432	-0.011720	0.007025	1	0.014522	0.021483
Sp	0.000178	-0.006748	-0.003737	0.001174	-0.029936	0.027066	-0.007384	0.006673	0.014522	1	0.028984
Eng	-0.004285	-0.011406	-0.003080	-0.002186	-0.012197	0.023732	-0.027652	0.007848	0.021483	0.028984	1

Source: Authors' estimation.

Table 6. The effect of language proximity/distance on outward FDI from Morocco

Variable	Coefficient	Stabdard error	Z-statistic
C	-3.800685***	0.158912	-23.91687
Log(Dist)	0.736614***	0.056022	13.14862
Log(RCA)	4.676195***	0.280628	16.66335
Log(GDP)	0.800714***	0.038504	20.79560
Log(Tar)	0.991815***	0.046214	21.46151
Log(HCI)	6.253190***	1.098648	5.69171
Log(DBI)	-2.411838***	0.523067	-4.61095
Log(IQ)	-3.213013***	0.323170	-9.94219
Ar	0.647031***	0.160432	4.03305
Fr	4.152561***	0.189599	21.90176
Sp	0.346503	0.298598	1.16043
Eng	-4.642093***	0.243853	-19.03647
R ²		0.654750	
Adjusted R ²		0.447640	
Rw ²		0.762058	
Adjusted Rw ²		0.762058	
Sample		1 810	
Included Observations		30	
Rn ² statistic		4 359***	

Source: Authors' estimation.

Note: ***, **, * indicate a significant level at 1, 5 and 10 per cent, respectively. Estimation method: RWLS with M-estimate. The covariance type for the estimate is the Huber type with Welsch function for the weight. Scale used is Huber. The dependent variable is Log(FDI). In order to avoid estimation error due to non-positive and zero values, some variables are transformed as follows: Log(FDI+1), Log(Tar+1); Log(HCI+1) and Log(IQ+3).

In addition, estimates show that sharing the English language between Morocco and host countries is a deterrent to FDI. In particular, the variable *Eng* negatively affects Moroccan FDI at the significance level of 1 per cent. An increase of 1 per cent in the English-speaking population of the host country causes a decrease in FDI outflows from Morocco by 4.64 per cent. Therefore, when English is the dominant language in the host country, it is difficult for Moroccan MNEs to adapt to the host economy because of the significant institutional distance between French- and Arabic-speaking countries and Anglo-Saxon culture.

Furthermore, it seems that Moroccan outward FDI is mostly horizontal because the estimations show that GDP, tariffs, distance and revealed comparative advantage positively affect FDI at the significance level of 1 per cent, where an increase of 1 per cent in their value causes an increase in Moroccan FDI by 0.80 per cent, 0.99 per cent, 0.73 per cent and 4.67 per cent, respectively.

General discussion: The empirical results show that language constitutes a foreignness liability for Moroccan MNEs when investing abroad, which confirms the general hypothesis that linguistic distance hinders outward FDI in host economies. In other words, the closer the host country is linguistically, the more it receives FDI inflows from the source economy. Furthermore, the estimates demonstrate that Moroccan outward FDI flows are more sensitive to French linguistic proximity than to Arabic because sharing the same institutional structure is more relevant than cultural proximity. Morocco inherited formal institutions from its former colonizer, i.e. France, which makes it easier for MNEs to adapt to a host country that shares the same colonial legacy and hence the same methods of structuring business and legal systems. Sharing the Arabic language may make adapting easier on the communication and trust level, but not on the institutional level, which is the greatest determinant of FDI location choice. Despite the common understanding of English as a global language, the English-speaking world is more likely to adopt an Anglo-Saxon approach to governance and doing business, an approach that differs distinctively from the francophone system. Thus, English linguistic proximity deters Moroccan FDI as it signals to Moroccan MNEs the existence of a different mindset and way of conducting business and trade. Finally, speaking Spanish does not affect Moroccan FDI, which is reasonable considering that Morocco marginalized the role of the Spanish language after its independence.⁵

According to the conceptual framework of the KCM, the results show that Moroccan FDI is horizontal and mostly market-seeking, which means that Moroccan MNEs operate in sales of final goods and services, where they are required to understand local languages. According to the estimates, the gross domestic product (GDP) of host countries positively affects outward FDI, with an increase in GDP of 1 per cent leading to an increase in FDI outflows of 0.80 per cent. The tariffs applied by host countries on Moroccan goods positively affect outward FDI, with an increase of 1 per cent causing an increase in FDI outflows by 0.99 per cent. This result confirms that FDI is horizontal. This type of investment is tariff-jumping FDI, where higher customs duties lead MNEs to adopt an FDI strategy instead of an export strategy, creating the goods directly in the host country. Equally, geographical distance positively affects Moroccan FDI because distant host countries imply higher logistical and transportation costs, which is a feature of horizontal FDI that

⁵ *El País*, "Morocco's diminishing interest in learning Spanish", 17 January 2018.

seeks to produce final goods in the host country to avoid surcharges – contrary to vertical FDI, which is more sensitive to geographical distance because of the international division of production. In other words, it seems that Moroccan MNEs invest horizontally in host countries that are linguistically closer, even if they are geographically distant. Finally, higher revealed comparative advantage attracts Moroccan FDI because MNEs that adopt a horizontal strategy seek countries where domestic labour is highly productive. Previous studies of the effect of language on FDI location choice have demonstrated the role of a common language in attracting FDI. Our paper studies outward FDI from a developing country such as Morocco and compares the effect of sharing a native language such as Arabic and a foreign language inherited from its past colonizer, i.e. France. Interestingly, the empirical work shows that having French as a common language is more impactful than having Arabic as a common language, which indicates the prevalence of an institutional mediator over a cultural one, especially for MNEs from countries with a common past colonizer.

6. Conclusions and policy implications

The present paper constitutes a novelty in the literature dealing with the effect of language proximity on FDI location choice by analysing a different context: MNEs from developing and African countries such as Morocco. Previous studies have focused only on MNEs from developed and emerging economies and on European languages such as English for the most part. This paper considers Spanish and French as inherited foreign languages from past colonizers (France and Spain), Arabic as the official language and English as a global language.

Many factors influence the decision of MNEs about investing abroad. In particular, the characteristics of the host country, such as cultural and linguistic distances, can constitute an obstacle for the foreign investor. Indeed, as an element of the psychic distance, language generates an asymmetry of information capable of hampering the internationalization process and causing additional costs.

Thus, we build our central hypothesis, suggesting that shared language is a factor that determines FDI location choice, based on previous studies that have shown the essential role of language in the development of MNEs abroad. When the host country and the home country share the same spoken language, FDI is attracted more than when the spoken language is different. Our study attempted to identify the effect of common languages on the choice of location of outward Moroccan FDI into 54 host countries by using a gravity model to measure the sensitivity of these FDI flows to linguistic distance. We found that language is indeed an obstacle to Moroccan MNEs, as the language spoken in the host and origin countries is different, thus confirming the central hypothesis. Indeed, the results show that the flows of outward Moroccan FDI to the countries under study are more sensitive to

linguistic proximity for French than for Arabic, returning to the fact that Morocco inherited the institutional structure of the Republic of France. As for Spanish, sharing this language has no significant effect on Moroccan FDI location choice. However, in countries where English predominates, it acts as a deterrent to Moroccan FDI due to the institutional differences between the French governance model and the Anglo-Saxon one.

The results of this study thus make it possible to provide stakeholders, in both the home and the host country, with answers that will serve and guide appropriate policies. In this sense, linguistic differences must be considered when investing abroad, and when aiming to attract inward foreign investment.

Regarding the policy implications related to outward FDI, public officials can establish a liaison office in a host country to support MNEs in their activity and facilitate their internationalization, with particular emphasis on core markets where language differences have a detrimental effect on outward FDI performance. In addition, given that language is associated with culture, public decision makers in the home country may wish to consider establishing cultural institutes or language training centres in the target host countries, which could be advantageous for MNEs wishing to invest in these countries. Developing countries may not have the resources for establishing a comprehensive international network of such institutions, but may wish to target core potential growth markets where linguistic distance proves to be an obstacle for the home country's outward FDI flows. At the host country level, the attractiveness to inward FDI requires adapting incentive measures to attract potential MNEs, by coordinating local language policies with those relating to investments, as well as integrating foreign languages in education.

For Moroccan decision makers, the results of the study imply different policies for each language. The effect of sharing the French language is more relevant than sharing the Arabic language owing to institutional aspects related to the language. Investing in an Arabic-speaking host country would not spare Moroccan MNEs from other transaction costs because sharing the Arabic languages implies only a cultural approximate whereas institutional distance is the most important factor.

On the one hand, decision makers should work on institutional cooperation between Arabic-speaking countries to enhance the flow of bilateral FDI by seeking a greater degree of coordination of their investment policy framework, through multilateral organizations of Arabic-speaking countries such as the Gulf Cooperation Council. On the other hand, having French as a common language seems very impactful because sharing the same colonial heritage makes it easier to conduct business and to understand the institutional climate. Policymakers should exploit this asset and cooperate more with those French-speaking countries, especially in terms of investment promotion and facilitation, with a view to safeguard and further grow Moroccan outward FDI into these countries.

Finally, the results show that speaking English has a negative effect on Moroccan FDI, which is reasonable given the institutional distance between Morocco and predominantly English-speaking countries. To surpass this barrier, Moroccan policymakers should seek to coordinate investment policy frameworks with English-speaking countries to reduce the complexity resulting from the institutional differences between the two ways of doing business and regulating.

Regarding the geographical distribution of outward FDI, the findings of the study seem to suggest the implementation of policies and actions with a view to further diversifying outward FDI beyond the emphasis on France, in countries where Spanish and English are the main or important language. This explains the strategy of the Moroccan Minister of National Education to generalize the teaching of English in the first year of middle schools in 2024, the second year in 2025 and the third year in 2026.⁶ In addition, Morocco and Spain are evaluating the possibilities of including Spanish in Moroccan schools to strengthen cooperation in educational matters within the bilateral working group on education, vocational training and higher education.⁷

The limitation of this paper is that it uses macroeconomic data to test the effect of language on FDI location choice, which limits our understanding of the mechanisms leading to investment based on the linguistic factor. To enrich the results, a firm-level analysis could be undertaken in future projects. Future research could tackle the moderating role of sharing a common past colonizer on the effect of language on bilateral FDI. In addition, it could focus on the mediating role of sharing culture and trust, especially through diaspora communities in host countries. Finally, and as our study has shown, future studies need to pay greater attention to multilingual home-country contexts, and extending beyond the scope of this study, also to multilingual host-country contexts.

⁶ Le Matin, L'enseignement de l'anglais dans les collèges généralisé entre 2024 et 2026", 19 October 2022.

⁷ LesEco.ma, "Enseignement: la langue espagnole aura bientôt la cote au Maroc", 27 October 2022.

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