С
АНКТ-ПЕТЕРБУРГСКИЙ ГОСУДАРСТВЕННЫЙ УНИВЕРСИТЕТ

Рукопись

Альвар КАСТЕЛЬО ЕСКЕРДО

Факторы, определяющие инвестиции в технологии из Китая в другие развивающиеся рынки: сравнительный анализ

Специализация: 08.00.05 – Экономика и управление народным хозяйством (менеджмент)

Диссертация представлена на соискание ученой степени кандидата экономических наук

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Абстрактный

Цель: Это исследование, основанное на двухтактной перспективе, направлено на определение страновых факторов прямых иностранных инвестиций китайских технологий (ПИИ) в регионы Латинской Америки и Евразии на уровне страны.

Дизайн/методология/подход: Мы утверждаем, что, вопреки существующей литературе, прямые иностранные инвестиции транснациональных корпораций с формирующимся рынком (транснациональные корпорации с формирующимся рынком) не всегда стремятся к развитым странам, и в странах с развивающейся экономикой есть факторы, которые могут оказаться привлекательными. Мы осознаем влияние макроэкономической и институциональной среды, а также географических преимуществ при выборе местоположения транснациональными компаниями с формирующимся рынком для прямых иностранных инвестиций, ориентированных на технологии, в другие страны с развивающейся экономикой, и мы проверяем наши гипотезы, используя данные о 213 заключенных сделках с прямыми иностранными инвестициями, связанными с технологиями. из 64 китайских транснациональных корпораций в 17 латиноамериканских и 158 технологических сделок с прямыми иностранными инвестициями, осуществленных 57 китайскими транснациональными корпорациями в 12 странах евразийского региона.

Результаты: Результаты свидетельствуют о более низком уровне технологичности китайских инвестиций в евразийский регион, чем в латиноамериканский. Экономическое развитие принимающей страны, измеряемое ВВП на душу населения, наряду с соглашениями о свободной торговле положительно влияет на китайские технологические инвестиции в Латинскую Америку, а природные ресурсы принимающей страны играют значительную роль в привлечении этих инвестиций в евразийский регион.. Однако институциональная дистанция и политическая среда принимающей страны, по-видимому, не влияют на эти технологические инвестиции. Наши результаты показывают, что прямые иностранные инвестиции в китайские технологии, направленные в оба региона, в значительной степени обусловлены государственными предприятиями (ГП), и благодаря поддержке, оказываемой правительством, политическая и институциональная среда принимающей страны может быть менее подвержена влиянию.

Оригинальность/ценность: Это исследование способствует лучшему пониманию характеристик и выбора места для инвестиций в технологии со стороны транснациональных корпораций с формирующимся рынком в другие страны с формирующейся рыночной экономикой, которым уделялось мало внимания в литературе. Таким образом, наше исследование вносит вклад в литературу по IB, показывая на отраслевом уровне нетрадиционное поведение транснациональных корпораций с формирующимся рынком при выборе мест для иностранных инвестиций в других странах

с развивающейся экономикой, главным образом как следствие идиосинкразических характеристик институциональной среды их стран происхождения. Это исследование также вносит свой вклад в литературу о китайских транснациональных корпорациях путем сравнительного анализа международного поведения китайских транснациональных корпораций на отраслевом уровне в различных развивающихся регионах, которому уделялось мало внимания в литературе по международному бизнесу (IB).

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A manuscript

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Determinants of Technology Investment from China into other Emerging Markets: A Comparative Analysis

Specialization: 08.00.05 – Economics and management of national economy (management)

Dissertation is submitted for the degree of a candidate of economic sciences

Scientific advisor:
Doctor of science (Economics)
Professor Andrei Panibratov

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Abstract

Purpose: Drawn from the push-pull perspective, this research aims to identify country-level factors of Chinese technology outward foreign direct investments (OFDI) into the Latin American and Eurasian regions.

Design/methodology/approach: We argue that contrary to extant literature technology-driven outward foreign direct investment from emerging-market multinationals (Emerging markets multinationals) do not always seek developed countries and there are factors in the emerging economies that can prove attractive. We recognize the influence of macroeconomic and institutional environment, along with locational advantages in the location choice of Emerging markets multinationals technology-driven outward foreign direct investment into other emerging economies and we test our hypotheses using data of 213 tech-outward foreign direct investments deals carried out 64 Chinese Multinationals into 17 Latin American and 158 tech-outward foreign direct investments deals carried out by 57 Chinese Multinationals in 12 countries of the Eurasian region

Findings: The results suggest a lower level of technology intensity of the Chinese investments into the Eurasian region than the Latin American. Host country's economic development measured by GDP per capita along with Free Trade Agreements positively influences Chinese tech-investments into Latin America, while the host country's natural resources play a significant role in attracting these investments into the Eurasian region. However, the host country institutional distance and political environment seems not to influence those technology-driven investments. Our findings suggest that Chinese technology outward foreign direct investment toward both regions is strongly driven by state-owned enterprises (SOEs) and thanks to the support provided by the government might be less affected by the host-country political and institutional environment.

Originality/value: This research contributes to a better understanding of the characteristics and the location choice of technology investments from emerging-market multinationals into other emerging economies that has received scant attention in the literature. Hence, our study contributes to the IB literature by showing at the industry level an unconventional behavior of emerging markets multinationals' foreign investment locations choice in other emerging economies, mainly as a consequence of the idiosyncratic characteristics of their home-country institutional environments.

Keywords and phrases: Emerging markets, Technology-driven OFDI, Latin America, Eurasia, Institutional environment, Macroeconomic environment.

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INTRODUCTION.

Relevance of the research topic is determined by the need for scientific understanding of the specifics of the emerging markets multinationals carrying out foreign investments into other emerging economies. The issue of effective ways for governments to mobilize resources and adopt regulations to attract inwards and foster outward foreign investments is of particular relevance for the national economy competitiveness.

The number of Foreign Direct Investment (FDI) from multinational from emerging economies has risen significantly since 2005 and this remarkable growth has attracted attention of academics and researchers to foreign direct investment during the last decade (World Bank Group, 2021). This shift in the origin of foreign direct investment has occurred in parallel with a rise in the proportion of technology-driven foreign direct investment (FDI) from emerging countries particularly aimed at augmenting their technological capabilities through mergers, acquisitions, and greenfield investments abroad. Earlier, Chinese foreign direct investment was concentrated in the energy and mining sectors; however, China's outward foreign direct investment is experiencing a shift from targeting natural resources assets to high technology and consumer-oriented targets (Ernst and Young 2019)

China stands out among all the other emerging economies, as being the fastest growing economy for the past two decades (Paul, Benito 2018) and for the rapid growth of its foreign direct investment that contributed to its position as a global player (Buckley 2019).

The Chinese firms are truly becoming key players in the industry worldwide. Managers, especially for incumbent firms, need to understand the characteristic and dynamics of emerging markets firms when they enter in a new market. At a policy level, since the emerging market firms are internationalizing worldwide, host-countries need to implement measures to diminish economic barriers in order to foster resources, capital, knowledge and investment flows, while address at the same time the negative effects of the potential managerial and planning deficits that some of Emerging markets multinationals may entails

Studies have suggested that emerging markets multinationals have different investment motives for foreign direct investment shaped by whether they invest in other emerging economies or in developed economies (references). Thus, the identification and evaluation of the drivers of technology investment from emerging markets multinationals into other emerging economies, and how location-bound country-specific factors influence the location choice of these technology-driven investments, is on high relevance with the aim to attract high value foreign investments and it predetermines the theoretical and practical significance of research in this field.

The degree of the research topic elaboration

The general theoretical fundamental of enterprise internationalization of multinational enterprises are in the works of leading researchers of International Business (IB) science, (Johanson and Vahlne, 1977; Dunning, 1977, Peng,2001; Barney, Wright and Ketchen, 2001; Eden, 2004; Marinova, Child and Marinov; 2012; Hoskisson, Eden, Lau and Wright, 2000; Peng, Wang and Jiang, 2008; He, Xie and Zhu, 2015; Huang, Ye, Zhou and Jin, 2017; Buckley, Clegg, Voss and Chen, 2018) Cantwell, Dunning and Lundan, 2010; Zhang, Tansuhaj and McCullough, 2009; Holburn and Zelner, 2010; Teece, 2014)

The works of these researchers present theoretical foundations that explain the motivation of firm's internationalization and set the scientific research vector in the field of foreign direct investments. Based on the empirical results, the researchers draw conclusions about the determinants firm's foreign direct investments, identifying of factors influencing those investments: institutional factors (Globerman and Shapiro 2003, Habib and Zurawicki 2002, Loree and Guisinger 1995); demand-side factors (Rogmans and Ebbers, 2013; Zhang and He, 2014; Apaydin, 2009); and supply-side (Na and Lightfoot 2006; Quazi 2007; Hoang and Goujon, 2014). According to another point of view represented in the literature, the foreign direct investment factors can be divided into "push" and "pull" factors (Buckley et al. 2007, Child and Marinova 2014, Luo et al. 2010; Ramamurti 2012)

The increasing participation of multinationals from emerging countries (EMNEs) in the international market challenged the conventional outward foreign direct investment theories based on the behavior on multinationals from developed markets

The aspects of the foreign direct investment theories focusing on Emerging Market were considered in the work of (Cuervo-Cazurra and Genc, 2008; Rugman, 2009; Peng, 2012; Ramamurti, 2012; Hashai and Buckley, 2014; Williamson, 2015; Williamson and Wan, 2018). The institutional perspective has been popular among the scholars who want to investigate the effect of home country on emerging markets multinationals' outward foreign direct investment (Hoskisson, Eden, Lau and Wright, 2000; Peng, Wang and Jiang, 2008; He, Xie and Zhu, 2015; Huang, Ye, Zhou and Jin, 2017; Buckley, Clegg, Voss and Chen, 2018). In addition, several new perspectives that treat emerging markets multinationals as latecomers to the international market enrich the literature on emerging markets multinationals, such as the exploration perspective (Park and Xiao, 2017), the springboard perspective (Luo and Tung, 2007), and the ambidexterity perspective (Luo and Rui, 2009).

The leading causes of emerging markets multinationals rapid expansion and competitive successes has been the subject of intense scrutiny by international academic community (Buckley,

2018; Deng, 2012, 2013; Deng et al., 2017; Meyer and Thaijongrak, 2013; Ramamurti, 2012; Huang et al., 2017; Li, Cui, and Lu, 2017; Li, Guo, and Xu, 2017; Sun et al., 2018). The literature contends that emerging markets multinationals expand abroad to acquire strategic assets in developed markets; (Ramamurti, 2012, Luo and Tung, 2007, 2018; Gubbi et al., 2010). The theoretical arguments indicate that technology-driven outward foreign direct investment from emerging markets multinationals (EMNEs) is mainly directed to developed markets rich in technological resources to acquire strategic assets aiming at augmenting their technological capabilities (Dunlap et al., 2016, Huang and Zhang, 2017, Luo and Tung, 2007, 2018). Similarly the emerging markets multinationals strategic acquisitions in emerging economies is related to natural resource and market seeking motives (Wang and Hu 2017; Pradhan 2017; He, Xie, and Zhu 2015) .

Nevertheless, technology-driven foreign direct investment from emerging markets multinationals do not always seek developed countries and technology investments into emerging economies are risen, indicating that there are aspects in these economies that can prove attractive that require scientific understanding. Therefore, further research is required to investigate what motivates emerging markets multinationals' technology investment from emerging markets into other emerging markets

The purpose and objectives of the thesis research

The purpose of the dissertation research is to theoretically justify and empirically test what factors drives emerging markets multinationals' technology investment from emerging markets into other emerging economies.

To achieve this goal, the following objectives were set:

1. To analyze the Chinese outward technology Foreign Direct Investments and analyze theoretical premises that explain the internationalization emerging markets multinationals into other emerging economies.

2. To assess the impact of home and host country economic environment affect emerging-market multinationals' investment location choice.

3. To analyze the influence, the of home and host country institutional environment emerging-market multinationals' investment location choice

4. Examine the influence of locational advantages in the location decision choice of Chinese technology outward foreign direct investment in the regions considered in our study

5. To evaluate whether these multinationals from emerging markets (emerging markets multinationals) behave in a similar way to that shown by their counterparts

from developed countries.

6. To analyze if there are similarities or differences with regards the factors that influence the Chinese tech-investment into different emerging markets.

Object and subject of the research. The object of the research is Chinese Multinational enterprises. The subject of the research is the association between country,, industry and firm level factors and foreign technology investment location-choice of Chinese Multinational enterprises.

The thesis compliance with the Passport of the scientific specialty. The dissertation corresponds to the following points of the passport of the scientific specialty 08.00.05 "Economics and management of national economy":

8.13. Strategic planning and forecasting of entrepreneurial activity.

10.15. Strategic management, methods and forms of its implementation. External and internal environment of the organization. Process and methods for developing and implementing a strategy. Business competitiveness. Strategic resources and organizational capabilities of a firm.

10.16. Management of the organization in the context of international business. Organization and management of an international company. International business strategies. International alliances and networks of firms. Mergers and acquisitions in international business.

The theoretical and methodological basis of the research

The theoretical basis of the research consists of theories in the field of internalization, strategic management and social sciences. The eclectic paradigm, the institution-based view approach and the concept of superior firm-specific assets that motivates international expansion are of particular importance for this study. The methodological basis of the research are general methods of scientific cognition, including methods of theoretical analysis and synthesis, deduction, econometric and statistical analysis.

Information base of the research. The data on of Chinese multinational enterprises foreign investment used for the main empirical study was taken from China Global Investment Tracker, a database of China's outward foreign direct investment compiled by the American Enterprise Institute and the Heritage Foundation (https://www.aei.org/china-global-investment-tracker), and information from each firm's corporate website.

The data collected was done with the help of several decision criteria: the time period – from 01/01/2005 to 31/12/2019; the acquirer country – China; the industry macro sector – Technology, Energy, Chemicals, Transport, Logistics, Utilities, and Healthcare;   the target

countries: – Latin America (Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Ecuador, Guatemala, Guyana, Honduras, México, Nicaragua, Panamá, Paraguay, Peru, and Venezuela); Eurasia (Azerbaijan, Belarus, Georgia,, Kazakhstan, Kyrgyz Republic, Latvia, Moldova, Russian Federation, Tajikistan, Turkmenistan, Ukraine and Uzbekistan).

Based on selection criteria we identified 213 outward foreign direct investments deals carried out 64 Chinese Multinationals into 17 Latin American countries and 158 outward foreign direct investments deals carried out 57 Chinese Multinationals into 12 Eurasian countries between 2005 and 2019. After removing duplicated observations our final sample for analysis included 4920 (3264 observations for Latin America, plus 1656 observations for Eurasia). The quantitative regression analyses were carried out using the statistical package STATA 13.

The scientific novelty of the research lies substantiation of the push-pull perspective, to assess the extent of country-level, industry-level and firm-level factors influence the peculiarities of emerging markets multinational carrying out technology-driven investments into other emerging economies

The outcomes of the research are:

1. Technology driven foreign direct investment from Emerging markets multinationals do not always seek developed countries and there are factors in other emerging economies that can prove attractive

2. Emerging markets multinationals expand abroad to acquire critical firms specific advantages that they lack and have different investment motives for foreign direct investment, shaped by whether they invest in other emerging economies or in developed economies.

3. The research indicates that that technology–driven investment of Chinese multinationals into other emerging economies are be in search of markets and natural local resources.

4. Our study signposts a lower technology intensity level of the Chinese Multinationals' tech-related investments connoting that when investing in other emerging economies, emerging markets multinationals employ technologies that are locally appropriate to the market.

5. Host country institutional political environment, does not to influence the location choice of these tech-investments, suggesting the supportive role of the Chinese government as outward foreign direct investment facilitator.

6. Our study shows at the industry level an unconventional behavior of emerging markets multinationals' foreign investment locations choice in other emerging

economies, mainly as a consequence of the idiosyncratic characteristics of their home-country institutional environment.

Theoretical significance of the research

The provisions and conclusions of the thesis expand and develop scientific ideas about the features of technology-driven investments from emerging markets multinationals. The thesis formulates conclusions revealing the essence and influence of country level factors and substantiates the particular characteristics of technology-driven investments from emerging markets multinationals into other emerging economies.

The main findings of the study are of value for researchers working in the fields of international business and strategic management. The results of the research can be used to further study the international behaviors of emerging markets companies based on a multilevel analysis of industry and country level factors and provides an empirical base that contains precious material for deeper theoretical understanding of the features of the technology-driven investments into from emerging-markets multinationals into other emerging economies.

Practical significance of the research

The main provisions of the dissertation research may be of interest to entrepreneurs, owners and managers of incumbent firms, interested in understanding if emerging-market firms behave in a conventional or different way when they enter in a new market. The results and conclusions of the work can also be taken into account by the authorities when developing policies to promote foreign investments. Since some of the emerging-market firms' investments, my entails managerial and planning deficits, authorities need to implement measures to address the negative effects of emerging-market firms' investments, in especial those driven by natural resource-seeking purposes.

The validity and reliability of the research results are ensured by observing the principles of systemacity, verifiability, consistency. The thesis provisions developing scientific ideas about the internationalizations specifics of emerging markets enterprises into other emerging economies are based on the fundamental research on institutional and economic determinants and the specifics of their technology-driven foreign investments.

Approbation of the research results.

The fundamentals of the dissertation research were presented at the leading russian and international scientific conferences:

1) GSOM Emerging Markets Conference-2019 International Business and Emerging Markets (St. Petersburg, Russia, 2019)

2) Annual Conference of the European International Business Academy (EIBA)-2020. Emerging Markets (Online Conference (via WU Vienna), Vienna, Austria)

3) Annual Conference of the Academy of International Business – 2021 - Emerging markets and emerging market Multinationals (Online Conference)

4) Annual Conference of the European International Business Academy (EIBA) -2021. Emerging Markets (Madrid, Spain)

5) Annual Conference of the Academy of International Business – 2022 - Emerging markets and emerging market Multinationals (Miami, USA)

The results of the dissertation research are presented by the author in 3 scientific international journals (ABS) of totally 6.0 printed sheets (the author's contribution of 4.0 printed sheets), including ones in editions required for the Candidate degree in Economics of St. Petersburg University – 2.5 printed sheets (the author's contribution of 2.5 printed sheets)

The structure of the work. The dissertation consists of an introduction, three chapters, conclusion, list of references and one appendix. The length of the dissertation (with the list of references) is 85 pages. The dissertation includes 9 tables and 11 figures. The list of references includes 237 items in English.

CHAPTER 1. THEORETICAL FOUNDATIONS OF FIRM's INTERNATIONALIZATION

From the international business literature, outward foreign direct investment is often viewed as a production or transaction cost-reduction strategy (Buckley and Casson 1976; Hennart 1982), as well as a strategy for acquiring foreign resources and capabilities (Dunning 1980). Outward foreign direct investment is one of the options firms use in managing their portfolio of investment opportunities (Iversen 1935), which they can choose for a variety of reasons: to leverage its competitive advantage by transferring production from the home country to overseas facilities and markets (Kogut and Zander 1993), as a risk diversification strategy (Rugman 1981) or a following strategy for leading corporations (Whitley 1999).

In this chapter, we provide literature review on firm's internationalization, that covers conventional firm's internationalization theories, the firm's internationalization theories focusing on emerging markets and particularly on China, as well as the Resource Based View perspective that can be applied to the analysis of Chinese technology-driven outward foreign direct investment. China-specific or, more broadly, emerging-market specific theories may provide better guidance on how to deal with the challenges posed by internationalizing Chinese firms

1.1. Conventional Theories

At the very beginning, international business (IB) scholars put forward internationalization theories based on their observation on the internationalization of multinational enterprises from developed countries (DMNEs). The Uppsala model (Johanson and Vahlne, 1977) which describes firm's internationalization as a process and the eclectic paradigm (Dunning, 1977, Dunning, 1979; Dunning,1980) which points out three decisive advantages in the internationalization of multinational enterprises are the two most influential of internationalization theories.

1.1.1   The Uppsala model of internationalization

The Uppsala model was based on empirical observation from four Swedish manufacturers and has its theoretical base in the behavioral theory of the firm (Cyert and March, 1963; Aharoni, 1966). It is also influenced by Penrose´s theory of the growth of the firm (Penrose, 1995). The behavioral theory describes the internationalization of the firm as a process in which the firm gradually increases its international involvement. Hence the Uppsala model suggests that the internationalization of business occurs in sequential steps.

From the empirical observations, Johanson and Vahlne (1977) find out that companies normally start their expansion in a psychically and culturally nearby market. There, they have enhanced knowledge of the market and more control of resources, thereafter gradually when the companies have become more experienced and acquired better resources, they expand to the more distance market. (By distance market, they refer both geographical and cultural/physiological distance). Most often companies entered a new market through export before the establishment of foreign sales subsidiary or foreign production.

Consequently, the less a firm understands a market the greater the psychic distance for the firm is and the more perceived uncertainty is. Thus, firms prefer to enter in markets that they understand, where the perceived uncertainty is low and where they can see market opportunities. Therefore, The Uppsala model postulates that the best way to minimize the perceived uncertainty and to see market opportunities is through experiental knowledge which is mainly acquired through firm first-hand experience in the specific market.

Overall, in the Uppsala model, multinationals continuously learn experimental and market-specific knowledge in foreign markets and adjust their commitments there based on their learning results about foreign markets. Hence, this is the reason for the incremental steps and the sequential engagement in foreign markets.

1.1.2 Eclectic paradigm Theory

Dunning's eclectic paradigm (OLI) has been for long the most influential framework for empirical investigation of determinants of foreign direct investment and offers a holistic framework to investigate the significance of factors influencing both the initial expansion of multinationals by foreign production and the subsequent growth of their activities.

The "eclectic paradigm" (Dunning, 1980) also called "OLI paradigm" (Ownership, Locational and Internalization), describes the nature of the international economic involvement. Dunning defines the ownership specific, internalisation and location specific advantages that he argues explain the involvement of firms in foreign direct investment. Ownership (O) advantages are defined as the sources of multinationals' competitiveness in foreign markets, which include patents, management, reputation, etc. Internalization (I) advantages are defined as the potential benefits of expanding business within the enterprises. Location (L) advantages are the advantages available to multinationals in a specific country or region.

The eclectic paradigm theorizes that a firm will engage in foreign direct investment when three conditions are met and suggest that "all forms of international production by all countries can be explained" in allusion to the following the conditions (Dunning, 1988):

1) That it possesses ownership (O) advantages that give it a competitive position compared to other firms in particular markets and that can compensate for the additional costs associated with setting up and operating abroad.

2) If the ownership advantages condition is satisfied, it must be more effective for the firm to utilize these advantages itself rather than sell or lease them. This use of these firm ownership advantages are referred to as internalization (I) advantages.

3) As the first two conditions are met, it must be in the interest of the firm to utilize these advantages together outside of its home country. Multinationals will chose to produce abroad whenever it is in their best interests to combine products produced in their home country, which are spatially transferable to the foreign country. These advantages are called location (L) advantages.

Correspondingly, high level of home country economic development is associated with the ownership advantages of investing firms: availability of capital and know-how push companies to internationalize (Durán and Ubeda, 2005). Similarly, technology endowments also encourage firms to go to foreign markets to exploit their competitive advantages. Emerging market firms are likely to possess lower level technology and but may have an advantage on similar markets (Salehizadeh 2007).

The best way to examine the locational advantage of host countries is in terms of the motives that the multinationals have to invest there. Dunning suggests four major motives: market-seeking, resource-seeking, efficiency-seeking and strategic asset seeking (Dunning, 1977, 1980).

Therefore, economic development, location and ownership advantages characterize the firm and attract foreign direct investment (Stoian and Filippaios 2008). Inward foreign direct investment increases location and ownership advantages of firms, which in turn favours outward foreign direct investment. As a result, Dunning's eclectic paradigm (OLI) contends that the greater the competitive advantage of an investing firm, especially compared to those of the host country, the more they are likely to undertake outward foreign direct investment.

1.2   Theories related to the emerging-market

The increasing participation of multinationals from emerging countries in the international market challenged the traditional firm internationalization theories based on the internationalization of multinational enterprises from developed countries. According these conventional internationalization theories, emerging-markets multinationals should be much less motivated to make outward foreign direct investments than developed-markets multinationals because they are much less likely to exploit their advantages. Compared with emerging-markets multinationals, developed-markets multinationals seem unrivaled in every aspect, except the access to cheap labor. However, the access to skilled labor could matter more to emerging-markets multinationals than the access to cheap labor.

For example, according to Dunning's (1993) eclectic paradigm, firms are expected to internationalize only after accumulating a significant market share and market power in their home country and afterwards developing considerable firm-specific competitive advantages, such as proprietary technology or brands.

Similarly, the Uppsala Model (Johanson and Vahlne, 1990) suggest that companies internationalize incrementally, seeking a low-risk strategy by first going into similar countries and externalizing their operations, and then over time, as they gain experience, internalize their foreign operations and venture into more remote and culturally different regions.

However, studies on internationalization of emerging-market firms, particularly Chinese firms, reveals that they internationalize at a much faster pace and to more geographic and psychically remote markets than traditional internationalization theories predict (Guillén and García-Canal, 2009; Madhok and Keyhani, 2012; Mathews, 2002; Luo and Tung, 2007; Ramamurti, 2012; Enderwick and Buckley, 2021). Their strategies therefore seem to differ from the traditional ones followed by multinationals from advanced economies

1.2.1   The Resource-Based View

Theoretically, the central premise of Resource-Based View theory addresses the fundamental question of why firms are different and how firms achieve and sustain competitive advantage by deploying their resources.

In 1991, Barney presented a more concrete and comprehensive framework to identify the needed characteristics of firm resources in order to generate sustainable competitive advantage. The Resource-Based View framework, suggests that firms can be conceptualized as a unique bundle of tangible and intangible resources and capabilities and their strategies as well as competitive advantages are driven by resources that are valuable, rare, and imperfectly imitable or substitutable (Barney 1991; Wernerfelt 1984).

Resources, can be defined as those assets that are tied semi-permanently to the firm (Maijoor and Witteloostuijn, 1996; Wernerfelt, 1984). It includes financial, physical, human, commercial, technological, and organizational assets used by firms to develop, manufacture, and deliver products and services to its customers (Barney, 1991). We can classify resources as tangible (financial or physical) or intangible (i.e., employee's knowledge, experiences and skills, firm's reputation, brand name, organizational procedures).

Capabilities, in contrast, refer to a firm's capacity to deploy and coordinate different resources, usually in combination, using organizational processes, to affect a desired end (Amit and Shoemaker, 1993; Grant, 1996; Prahalad andHamel, 1990). Hence, capability is specific to the firm, since it is embedded in the organization and its processes (Makadok, 2001) and its primary purpose is to enhance the effectiveness and productivity of resources that a firm possesses in order to accomplish its targets, acting as 'intermediate goods' (Amit and Shoemaker, 1993).

Based on the Resource-Based View (RBV) theory, a firm's international expansion will be motivated by its superior firm-specific assets, such as proprietary resources or managerial capabilities (Peng 2001). Scholars have identified firms' technology and innovation capabilities as a driver of outward foreign direct investment (Cui and Jiang 2010; Xiao, Lew, and Park 2019), which according to the RBV theory may generate a unique competitive advantage because are hard to imitate or substitute.

In general, firms from emerging countries lack firm-specific advantages as they have inferior technologies and production processes (Lattemann et al. 2017). Hence from an economic perspective, it is not evident how these firms can internationalize.

The springboard perspective (Luo and Tung, 2007, 2018) provides one explanation for the internationalization of emerging-markets multinationals and argues that emerging-market firms internationalize to obtain location advantages, in order to gain "strategic resources and reduce their institutional and market constraints at home" and "overcome their latecomer disadvantage in the

global stage." Hence, emerging-markets multinationals, and in particular Chinese multinationals, make use of outward foreign direct investment to obtain location advantages, such as access to natural resources, markets or strategic assets such as new technologies and know-how they lack (Luo and Tung 2007, 2018, Madhok and Keyhani, 2012). Those firms might use foreign direct investments to access to technologies and brands and capture innovation capabilities in the host country (Luo et al., 2010), to subsequently build them into their own competitive advantages in international markets (Kotabe and Kothari 2016; Paul 2015).

However, Ramamurti (2009) highlights that emerging-markets multinationals do possess ownership advantages that are different from developed-markets multinationals. These are more entrenched in their understanding of the emerging markets particularities, their flexibility in adapting to customer needs, operating in difficult and different business environments, and the ability to develop "good enough" products for local markets. (Collinson and Rugman 2008),

Regarding emerging-markets multinationals, scholars tend to distinguish between state-owned enterprises (SOEs) and private-owned enterprises (POEs). It is argued that state-owned enterprises have access to more resources to internationalize than private-owned enterprises (Buckley et al. 2007, Madhok and Keyhani, 2012).

1.2.2 Institutional theory

Besides firm-specific advantages, companies might act in response to the formal and informal constraints or opportunities posed by the institutional framework in which they are embedded (Muralidharan et al., 2017; Scott, 1993). Scholars has paid special attention to the characteristics of home-host countries' institutional environment that encompasses quality of institutions and governmental pressures. The relevance of institutions for competitiveness of a host country was noticed when the researchers observed that economic factors alone could not explain the attractiveness of a country for foreign investment (Amal, Raboch and Tomio 2009).

North (1990) developed the theory of 'institutions' that aims at explaining capital flows across countries. The main point of this theory is that formal institutions such as laws, regulations, and government policies along with informal cultural norms and traditions influence firms' willingness to invest in a country. Informal institutional factors are related with differences in culture between the home and the host country (Schwens, Eiche, and Kabst 2011) and from an institutional perspective, culture may be considered as a part of the environment's informal institutions, which underpin formal institutions (Peng, Wang, and Jiang 2008).

According to institution-based view approach, institutional forces are significant drivers of firms' strategy formulation. Hence, institutions influence investment of the companies by facilitating transactions and lowering their costs, reducing uncertainty and mitigating risks

(Mudambi and Navarra 2002; North 1990).

In recent years, there is a growing interest to understand how the home-country institutional environment acts as a push for firms' outward foreign direct investments, especially in the context of emerging markets (Chen, Saarenketo, and Puumalainen 2018; Li et al. 2018; Meyer and Peng 2016). One reason for this interest is that emerging economies have undergone significant institutional reforms that noticeably affect firms' strategies (Buckley et al. 2018, Nuruzzaman, Singh, and Gaur. 2020)

Because emerging-market firms are generally late in entering international markets, direct or indirect government support is often critical to the success of their internationalization strategies (Child and Rodrigues 2005). Hence country-level factors (e.g. government support, political stability, and economic growth) accounted as country-specific advantages, are particularly important for emerging firms (Lattemann et al. 2017).

Academics Peng, Wang, and Jiang (2008) and Scott (2013) suggest that home country institutions shape a firm's strategies and behaviors and others authors argue that good host-country institutions have a positive effect in attracting foreign direct investment (e.g. Globerman and Shapiro 2003; Harms and Ursprung 2002; Gani 2007). Therefore, the institutional environment both in the home and the host country influences the investment strategies of emerging-market multinationals (Buckley et al. 2016b; Cui and Jiang 2010; Peng, Wang, and Jiang 2008)

Child and Marinova (2014) reasons that particular combination of home and host-country institutional environments can generate different firm-level internationalization strategies based on the firm's specific resources(i.e., assets, competencies, knowledge referred to operations) and the firm's institutional capital (i.e., ability to interact with home and host institutions to positively impact international strategy).and that is mediated by type of firm ownership (i.e. state-owned firms) and industry sector (i.e. key strategic / sensitive sector).

 Hence, the combinations between the home- and host-country contexts (and not only the home country) and the circumstances in which they are entangled with firm-level resources and institutional capital shape firm-level internationalization strategy. According to Child and Marinova (2014) "firms operate within political and institutional domains that can both facilitate and hinder their internationalization"

In the context of China, the huge influence of the Chinese government on their multinationals makes the institutional perspective commonly adopted. China's political system is alleged to force Chinese investors to "escape" and thus indirectly promote Chinese outward foreign direct investment (Boisot and Meyer 2008, Shi et al, 2017), while at the same time, the same system is recognized for supporting and promoting Chinese outward foreign direct investment (e.g. Luo, Xue, and Han 2010, Gallagher and Irwin 2014, Duanmu 2014; Hillemann

and Ramamurti 2018; Torres de Oliveira and Rottig 2018). Deng and Zhang (2018) argue that the 'escaping' and 'fostering' roles of home-country institutions coexist and are mutually supportive.

Furthermore, scholars tend to distinguish between Chinese state-owned enterprises (SOEs) and private-onwed enterprises (POEs) in their research. From an institutional perspective, China's institutions influence differently the state-owned firms from the private-owned ones. The formers are proven to have more access to loans than laters (Gallagher and Irwin, 2014) and more protections from political involvement by the Chinese government (Duanmu 2014).

The Chinese government actively support of key strategic industries with financial, fiscal, or other supportive benefits that can significantly affect the development of national firms, as well as their international orientation. (Lv and Spigarelli 2015, Aharoni 2014). Government favored firms in key strategic sectors are pushed by supporting policies to acquire expertise and know-how in internationals markets.

1.3   Conclusions and the theoretical approach used in the dissertation

The international business, often view Outward Foreign Direct Investment (OFDI) as a production or transaction cost-reduction strategy and as well as a strategy for acquiring foreign resources and capabilities. At the very beginning, international business (IB) scholars put forward internationalization theories based on their observation on the internationalization of multinational enterprises from developed countries often named as conventional theories. Among the conventional theories the Uppsala model and the Eclectic paradigm has been relevant for studying a variety of international business (IB) topics.

The Uppsala model describes the firm internationalization as a process, where multinationals continuously learn experimental and market-specific knowledge in foreign markets and adjust their commitments there based on their learning results about foreign markets. Hence, this model suggests that the internationalization of business occurs in sequential steps. However, this model is criticized because it does not provide a theoretical explanation for non-linear and discontinuous dynamics of the internationalization process over time. In other words, whereas the model can explain linear internationalization processes with events that follow a predictable pattern, such as stages of commitment in internationalization, the Uppsala model cannot explain faster internationalization process such as firms' leap-frogging stages. (e. g. Chen and Liu, 2021; Santangelo and Meyer, 2017).

The Dunning's eclectic paradigm (OLI) argues that the greater the competitive advantage of an investing firms is, especially compared to those of the host country, the more they are likely to increase outward FDI. Dunning defines the ownership, location, and internalization specifics advantages that he argues explain the involvement of firms in foreign direct investment. However,

the eclectic or OLI paradigm has been criticized by scholars for it its inability to handle the dynamic evolution of the multinationals easily, for neglecting the role of institutions in the process of internationalization and for the simplified understanding of the company's competitive advantages in empirical studies. This theory has an unclear specification of what can serve as measures of the major constructs in the paradigm and how those constructs are related.

The increasing participation of multinationals from emerging countries in the international market challenged the traditional firm internationalization theories based on the internationalization of multinational enterprises from developed countries. The studies on internationalization of emerging-market firms, particularly Chinese firms, reveals that they internationalize at a much faster pace and to more geographic and psychically remote markets than traditional internationalization theories predict (Guillén and García-Canal, 2009; Madhok & Keyhani, 2012; Mathews, 2002; Luo & Tung, 2007; Ramamurti, 2012; Enderwick and Buckley, 2021). Their strategies therefore seem to differ from the traditional ones followed by multinationals from advanced economies

Although there is a broad consensus regarding the theories used to explain the motivation for OFDI in developed countries, the same cannot be said with regard to emerging economies (e.g Buckley et al. 2007; Child and Rodrigues 2005; Ramamurti 2012). Some author argue that conventional theories can explain China's OFDI (e.g. Cai 1999; Zhang and Daly 2011) while others argue that traditional theories or frameworks cannot be used to model OFDI in emerging economies, particularly the case of China (e.e. Alon et al. 2011; Kolstad and Wiig 2012; Ramamurti 2012).

There is a general consensus in the literature that to understand the internationalization pattern of emerging markets multinational, the OFDI in an emerging economy should be analyzed from a multi-level approach. Lattemann et al. (2017) argue that the reasons for and influences on internationalization of EMNEs are related with from the firm's institutional environment (Peng, Wang, and Jiang 2008; Scott 2013), industry-level factors (e.g. Luo, Xue, and Han 2010; Wang et al. 2012), and firm-level factors (e.g. Barney 1991; Peng, Wang, and Jiang 2008).

Taking the aforementioned into consideration , this dissertation uses a multilevel approach and focus on the theoretical frameworks that may explain the influence of each level. Therefore, this research incorporate resource, industry, macroeconomic and institutional based explanations, to assess the role of economic and institutional environment factors and competitive advantages that influence Chinese technology investors' location choice into the others emerging markets, namely the Latin America and Eurasian region.

CHAPTER 2. APPROACHES TO INTENATIONALIZATION OF EMES: THEORETICAL MODEL

1.4   Context background of the study

The number of Foreign Direct Investment (FDI) from emerging economies has risen significantly since 2005 and this remarkable growth has attracted attention of academics and researchers in International Business during the last decade. (The World Bank Group -2021)
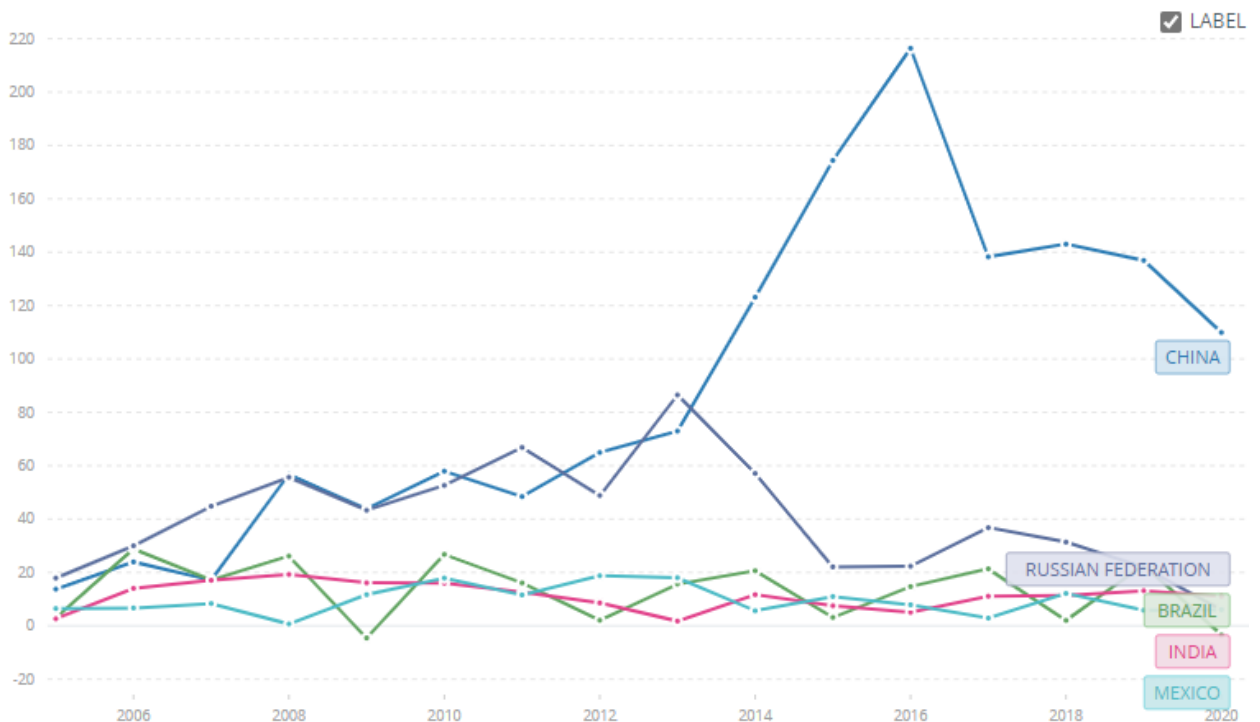
Fig 1Foreign direct investment, net outflows (billions current US$) - China, Brazil, Russian Federation, India, Mexico (source : The world bank)

China stands out among all the other emerging economies, as being the fastest growing economy for the past two decades (Paul and Benito 2018) and for the rapid growth of its foreign direct investment that contributed to its position as a global player (Buckley 2019). Earlier, Chinese outward foreign direct investments was concentrated in the energy and mining sectors; however, China's outward foreign direct investments is currently experiencing a shift from natural resources to high technology and consumption-oriented sectors.

Share of China's ourward M&A deal value (by sector)

Legend:
- Energy
- Mining
- TMT
- Real estate, leisure and construction
- Financial services
- Agriculture and food
- Automotive
- Industrial products
- Transportation and utilities
- Life Science
- Consumer products (not including food)
- Others

Data labels visible:
- 2010: Energy, 53%; Mining, 8%
- 2011: Energy, 36%; Mining, 20%
- 2012: Energy, 50%; Mining, 10%
- 2013: Energy, 46%; Mining, 8%
- 2014: Energy, 13%; Mining, 3%

Fig 2. Chinese companies' outward investment is moving from energy and mining toward diversification (source: EY Knowledge analysis, MergerMarket)

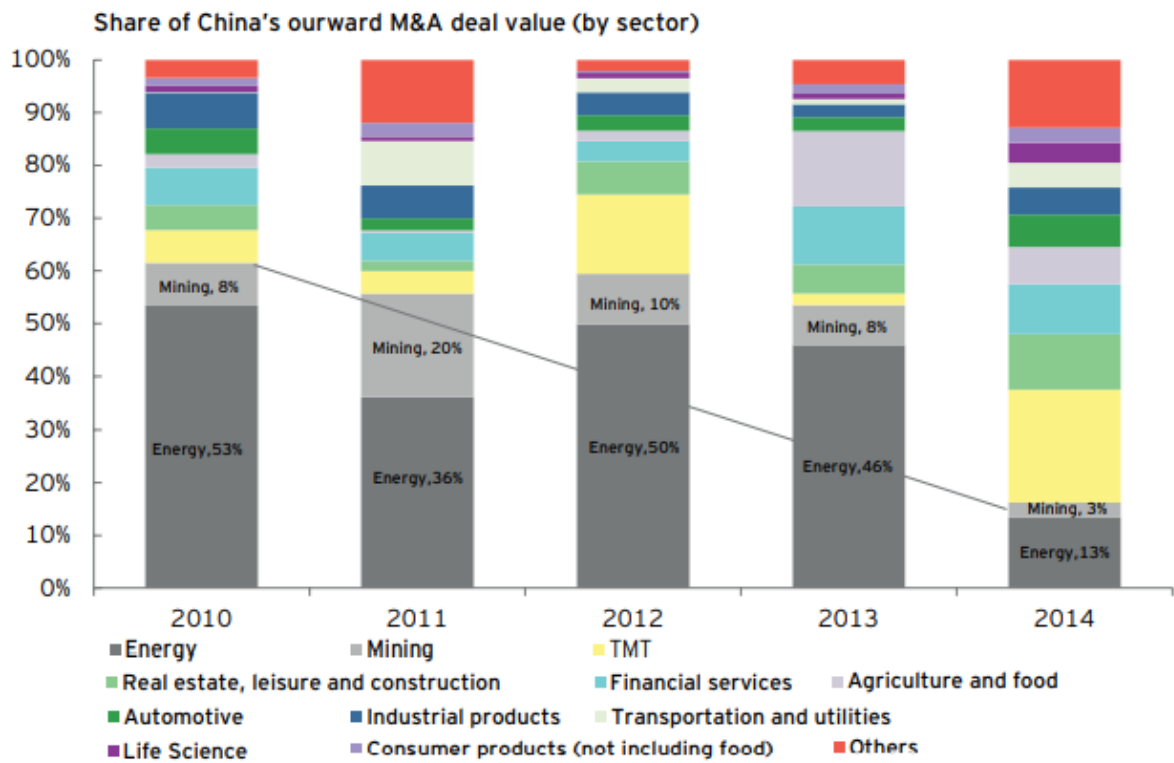In 2018, China introduced the *Special Administrative Measures on Access to Foreign Investment,* to gradually direct the investment structure to be more technology-oriented and develop China's role in the global value chain (Ernst and Young 2019).
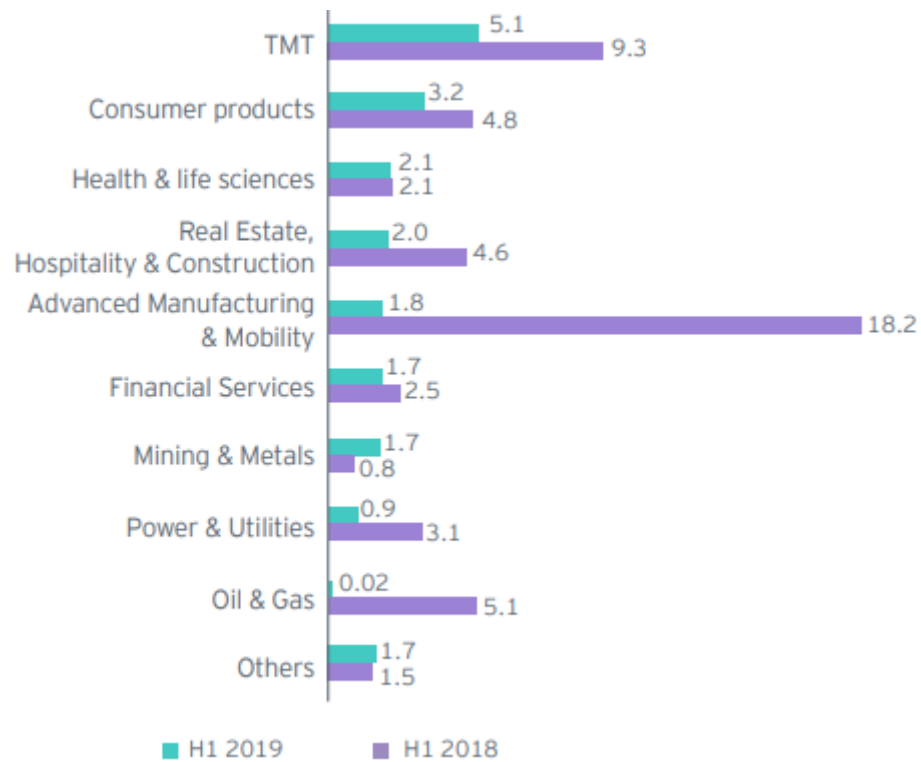
Fig 3 Announced China overseas M&As deal value by sector, H1 (the first half of the year) 2019 and H1 2018 (US$ billion) (Source: EY analysis: ThomsonOne, Mergermarket)

According to Ernst and Young (2022) report on China's outward foreign direct investment, technology, real estate and construction, advanced manufacturing and mobility sectors have attracted major interest of the Chinese enterprises.
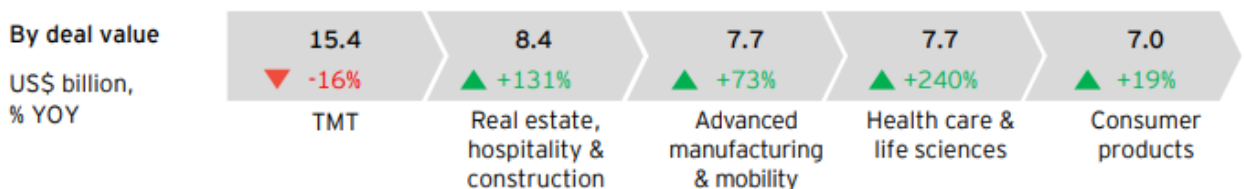
Figure 4: Top five sectors in the announced China overseas M&As of 2021(Source: EY analysis2021: ThomsonOne, Mergermarket)

The Latin American region has a special attention for Chinese firms since it is already the second destination of China's outward foreign direct investment (OFDI) only surpassed by Asia (National Bureau of Statistics of China 2019). Although recent studies investigated Chinese outward foreign direct investments towards Latin America from different perspectives, such as energy cooperation between China and Latin America (Vasquez 2018), socioeconomic determinants of Latin America (Zhang 2018), resource seeking investments from Chinese state-owned enterprises (Shapiro, Vecino, and Li. 2018), etc., the research focusing on China's outward foreign direct investment towards Latin America still scarce.

Relatedly, Chinese investments in Latin America has traditionally been targeting the extractive industries, though in the recent years the situation is changing, and more than a half of Chinese investments in the region focus on services sector, particularly in transport, finance, electricity, media & communications technology and alternative energy (Avendano, Melguizo and Miner 2017). This trend however, has not been adequately captured in the scientific literature.

Investments in the extractive industries accounted for more than 60 percent of total Chinese investments in the region from 2003 to 2012, but dropped to 37 percent in the following four years (2013 to 2016). However, Chinese investments in the service sector jumped from 21 percent of from 2003 to 2012 to more than 50 percent the following four years (with alternative energy included).
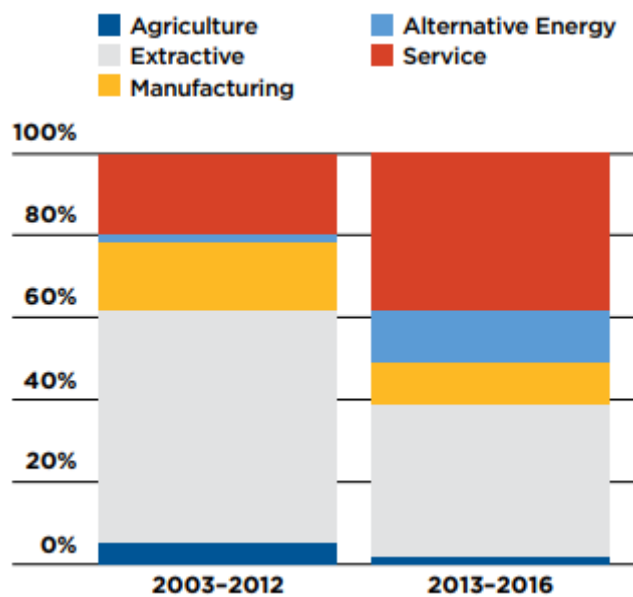
Figure 5. Chinese investments in Latin America by sector 2003-2012 and 2013-2016 (Source: OECD report Chinese FDI in Latin America 2017)

China have also demonstrated interest in developed and intermediate market economies in particularly in EU member-states, countries waiting to join the EU in the Western Balkans, and neighbors farther East, including Russia, Ukraine, and Belarus. The interest of China for central and eastern European countries is related with the possibility of making a connection to Eurasian Economic Union and as well as way to entering to various European markets. (Richet, 2016). Correspondingly, Chinese outward direct investment have risen considerably along the Belt and Road mainly focused in energy, transport and mining sectors, especially in countries located in Central and West Asia, Eastern Europe and Russia (Nedopil 2022), and particularly, China's investments in extractive industries, energy connectivity, railway and road connections has increased China's influence in the foreign trade of Central Asia (Vakulchuk et al, 2019).
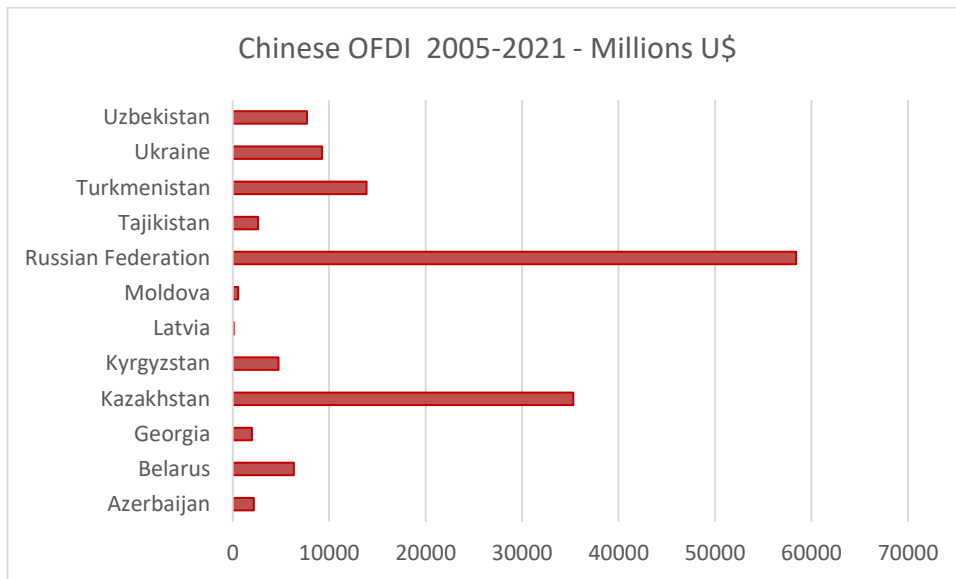
Figure 6 Total Chinese OFDI from 2005to 2021 in per countries in the Eurasian region

Source: created by the author using data from the American Enterprise Institute 2021
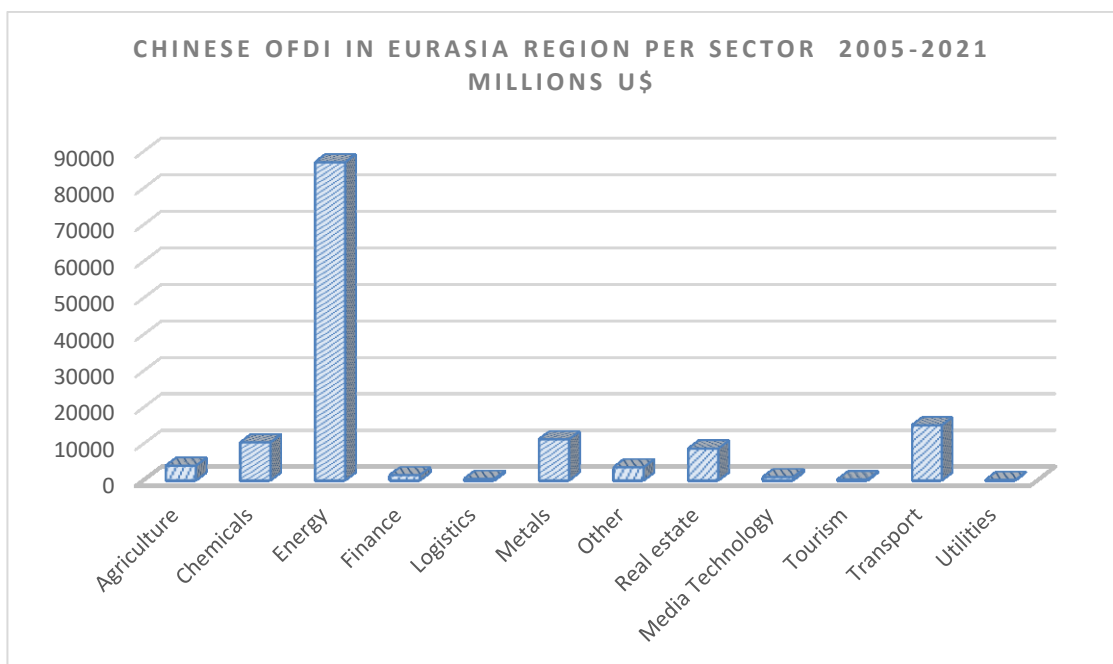
Figure 7 Total Chinese OFDI from 2005to 2021 in per sectors in the Eurasian region

Source: created by the author using data from the American Enterprise Institute 2021

*Energy includes alternative energy

Concurrently, high-technology and financials investment rose as well indicating the importance of new types of high-value-added target industries in the belt-road countries (Du and Zhang, 2018) and further expanding the cooperation areas from energy and infrastructure to technology, finance services and other emerging industries (Ernst and Young 2019).

However, this trend of technology-driven investments from emerging markets multinationals into other emerging economies has not been adequately examined in the literature and particularly the studies related with china's outward foreign direct investment into the Eurasian region are mainly focused in extractive industries.

1.5   Theoretical model and hypotheses of the study

1.5.1   <u>Nature and particularities Emerging Markets Multinationals internationalization</u>

Recent studies on emerging markets firms' internationalization argue that emerging markets multinationals (EMNEs) may internationalize in order to overcome their ownership disadvantages (see Mathews, 2002; Luo and Tung, 2007, 2018). In other words, emerging markets multinationals acquire strategic assets to develop firm's specific resources and exploit their existing ownership advantages through internationalization. This view of Emerging markets firm' internationalization assumes that most of emerging markets multinationals initially lacks of firm-specifics advantages

On the other hand, a number of scholars argue that despite the emerging markets multinationals may possess few firm-specific advantages, many of them enjoy a range of country-specific advantages that enable them to benefit considerably from internationalization (e.g. Bhaumik et al., 2016; Guillen and Garcia-Canal, 2013; Hennart, 2012; Kotabe et al., 2011; Pananond, 2013).

According to this view the emerging markets firms' rapid internationalization phenomenon can be explained in terms of the exploitation of home-based country-specific advantages s such as low-cost labor, financial resources, favorable government policy, and access to natural resources, that help this firms to overcome their relative lack ownership advantages (e.g. Bhaumik et al., 2010; Gaffney et al., 2013; Guillen and Garcia-Canal, 2009; Mathews, 2002, 2006; Ramamurti, 2012; Rugman, 2009).

Finally, according to another view on the literature, emerging markets multinationals should be treated as a special case because over the years have developed specific advantages that differ from those traditionally mentioned in the IB literature such as innovative products and global brand reputation which developed-markets multinationals often possess

Supporters of this view contend that that emerging markets multinationals possess unique ownership advantages that they build in response to their home market conditions (Mathews, 2006; Ramamurti, 2009). Such home-based advantages take a variety of forms such as organizational flexibility, ability to deal effectively with adverse institutional environments, *relational networks* and operational knowledge, that emerging markets multinationals developed as coping strategies in their weak domestic environments often characterized by institutional voids.

1.5.2 Investing in other emerging economies versus investing in developed economies

Studies in emerging markets firm (EMF) internationalization, suggest EMF have different investment motives, originated by whether they invest in in developed markets or in other emerging economies. Makino, Lau, & Yeh, 2002 argues that emerging markets firms need to develop different sets of capabilities and resources depending whether they invest in in developed or in other emerging markets to make the respective investments successful

When investing in other emerging economies, emerging markets multinationals pursue to exploit their ownership advantages such as organizational and operational capabilities and experience in dealing with adverse institutional environments (Bilgili et al., 2016; Buckley et al., 2016b) and employ technologies that are locally appropriate and accessible to the market (Kubny & Voss, 2014). Local firms may have difficulties to fully absorb more advanced technology form developed-markets multinationals, therefore emerging markets multinationals benefit from this lower absorptive capacity of the local firms

However, when investing in advanced economies, emerging markets multinationals pursue overcome competitive disadvantages at home and rely on government support to lead access to low-cost capital and strategically important factor resources that the state controls (Li et al., 2017; Wang et al., 2012a; Zhang et al., 2016). Similarly, emerging markets multinationals rely on ethnic and personal networks to gain easier access to market information and entry (Ge & Wang, 2013)

1.5.3 Technology-driven foreign direct investment from emerging markets multinationals

The extant literature contends that technology-driven outward foreign direct investment from emerging markets multinationals (EMNEs) is mainly directed to existing technological hubs in developed countries aiming at augmenting their technological capabilities through mergers, acquisitions, and greenfield (Dunlap et al., 2016, Huang and Zhang, 2017, Luo and Tung, 2007, 2018). Anderson et al. (2015) argued that the acquisition of strategic assets for imitation and exploitation provides one credible explanation for Emerging markets multinationals' outward foreign direct investment. Correspondently, several studies confirm the positive effect on domestic innovation of emerging markets multinationals' "knowledge-seeking" investments in developed economies (Hong et al. 2019, Jingjing and Xianming 2022, Zhou et al., 2018)

On the other hand, compared to developed countries, emerging markets are weakly equipped with human capital or Research and Development (R&D) resources to generate sophisticated patents or technology. The innovation capacity of the emerging markets is limited, thus cooperation with local firms often cannot provide the knowledge resources or human capital that emerging markets multinationals need to exploit innovative resources (Hong et al. 2019). Furthermore, according to Zhou et al (2018), emerging markets multinationals ' foreign

investments into emerging markets may even have a negative impact on domestic innovation, because of lower reverse technology spillovers and the substitutionary relationship between outward foreign direct investment and domestic investment (Tsung-Li, Lin, and Yang 2017).

However, technology-driven foreign investments from emerging markets multinationals (EMNEs) do not always seek developed economies and technology foreign investments from EMNEs into emerging economies are risen, indicating that there are factors in these economies that can prove attractive. In the case of the Latin America and Eurasian regions, Chinese outward foreign direct investment has risen considerably and technology related investment have risen as well indicating the importance of new types of high-value-added target industries in these markets.

1.5.4 Hypotheses development

Macroeconomic and institutional environment are essential elements of the investment climate. Studies on the determinants of foreign direct investment focus on home and host country institutional and macroeconomic environment. The increase of competition and resource scarcity in home country and a favourable investment environment in the host country will stimulate firms to internationalize. Conversely, economic growth in the home country and institutional constraints in the host country will make firms to operate in their home countries (Luo and Wang 2012).

Next, we formulate the hypotheses of this study from a push and pull perspective the home and host country economic and institutional factors influence the origination and location choice of Chinese multinationals foreign tech-investments.

Home-country macroeconomic environment

The macroeconomic environment of home-country and favorable policies towards foreign trade and investment, have an important influence on the outward foreign direct investment of firms from emerging markets (Goh and Wong, 2011, Verma and Brennan, 2013). As postulated by Dunning (1988), outward foreign direct investment from a country is associated with the level of its economic development. Economic growth and rising consumption levels in emerging economies are motivating emerging market firms (EMFs) to invest and develop technical innovations (Greeven, Yip, and Wei. 2019). Consequently, a sustained economic growth in home-country stimulates firms to develop specific ownership advantages that they can leverage in foreign markets (Dunning 1980).

Economists traditionally use the gross domestic product (GDP) to measure economic progress and a high level of GDP is viewed as a sign of economic strength. Callen (2008) states that GDP is critical as it gives information about the size of the economy in a given country and how this economy is performing.

Previous studies have shown a positive association between the country's level of economic development and outward foreign direct investments flows (Amin, Anwar and Liu 2020, Amann and Virmani, 2015). Consequently, our study considers that a sustainable economic development in the home country is a prerequisite for technology outward foreign direct investments, and thus, we hypothesize the following.

Hypothesis 1: Chinese technology outward foreign direct investment is positively associated with the level of China's economic development measured by GDP.

Host country macroeconomic environment

Consistent with the location theory proposed by Dunning (1998), overall empirical studies confirm the positive relationship between market size and foreign direct investments inflows into that market. The host countries with larger market size and faster economic growth will provide more opportunities for investing firms to exploit their ownership advantages in these markets

Market size, gross domestic product (GDP) growth, and economic openness are named among the main drivers of outward foreign direct investment (e.g. Kumari and Sharma 2017, Różański and Paweł 2016, Zhang and Daly 2011). Similarly, studies that investigate the determinants of Chinese outward foreign direct investments find a positive relationship between the amount of Chinese outward foreign direct investment and the market size and economic growth of the host countries (e.g. Kang and Jiang, 2011, Kolstad and Wiig 2012, Zhang 2018).

The indicator of gross domestic product (GDP) per capita was chosen as proxy of macroeconomic environment of host country. The GDP per capita shows the level of development and captures the size of the demand in the host country that both attract foreign direct investments inflows. This proxy has been used in previous Chinese outward foreign direct investment studies (Buckley et al. 2007; Chen, Dollar, and Tang 2016, Zhang 2018). Therefore, and according to the aforementioned, we hypothesize.

Hypothesis 2: The level of the host-country economic development measured by GDP per capita, is positively related to the Chinese technology outward foreign direct investments in that country

Home - host country institutional environment

Investment climate combines both, public policy and institutional characteristics home and host country that affect the attractiveness of building or acquiring a company and operating in

host-market conditions. Government shapes the investment climate through the regulations and policies reducing or stipulating barriers, transaction costs and related risks.

Consequently, multinationals' strategies in emerging markets are greatly influenced by institutional forces due to significant economic and political reforms (Buckley et al. 2018, Nuruzzaman et al. 2020). Institutions influence firms not only by supporting economic transactions but also benefit different types of firms through their resources and capabilities (North 1993).

Institutional distance

Institutional distance is considered to measure the differences in political and economic environments between different countries (Ciszewska-Mlinarič and Trąpczyński 2019). In other words, institutional distance measures the degree of difference in public behavior between two countries. The longer the institutional distance, the greater the difference in political and economic environments between the home country and the host country and therefore the higher the cost for foreign investment because of the lack of familiarity and the need to adapt to the local environment (Lindner, Muellner, and Puck 2016; Zhang and Xu 2017).

In emerging economies, the impact of the institutional distance between the host and the home country varies (Dhahri and Omri, 2020; Jiang and Lattemann, 2018; Ra and Qian, 2014). The literature states that there are mixed results on how institutional distance affects Chinese foreign direct investment. While several studies find that institutional distance is positively related to the likelihood of Chinese outward foreign direct investment in a host country (Li, Li, and Shapiro 2012, Mohsin et al., 2021, Zheng, Yan, and Ren 2016, Wu 2017) others report a conventional negative relationship between institutional distance and China's outward foreign direct investment (Han, Chu, and Li 2014; Zhang and Xu 2017).

The possible explanation for these mixed results could be that Chinese multinationals have experience with similar weak institutional environments at home and this provides them with a competitive advantage when they invest in other emerging economies with underdeveloped institutions similar to those of their home country (Cuervo-Cazurra and Genc 2008). Alternatively, Chinese multinationals invest in institutionally distant countries as an escape from China's institutional environment (Boisot and Meyer 2008; Shi et al. 2017). As well, firms with a favorable position in the Chinese country's institutional system empower those firms by providing them support and access to resources to embark on foreign investments (Hillemann and Ramamurti 2018, Liang, Bing, and Sun 2014). According to Deng and Zhang (2018) 'escaping' and 'promoting' roles of the home country institutions coexist and are mutually supportive.

Furthermore, China maintains friendly bilateral diplomatic relations with countries with weak institutional environment, which help to reduce the risk faced by its companies (Duanmu

2014, Li et al., 2018, Sun and Liu 2019, Shapiro, Vecino, and Li 2018, Zhang, Jiang and Zhou 2014). Therefore, bilateral agreements can stabilize host country environments for Chinese firms (Child and Marinova 2014).

Buckley et al. (2007, 2016b) argue that some Chinese outward foreign direct investments have been carried out in countries with closer political and ideological ties which China, despite of many of them had risky institutional environments. Similarly, other researcher's claims the good political relationships with China compensate for some disadvantages associated with the host country's lack of good-quality institutions (e.g. Li et al. 2013, Zhang et al. 2014, Li and Liang, 2012) and may influence the impact of host country institutions on the market expansion of Chinese multinationals (Gao et al., 2015). These arguments lead us to suggest that institutional distance between China and the host country, seems not affect Chinese multinationals' outward foreign direct investment location choice in a conventional way and therefore we hypothesize the following:

Hypothesis 3: *Institutional distance between China and host country is positively related with the Chinese technology outward foreign direct investment in that country*

Cultural distance

Cultural distance is attributed to the way people interact with each other, companies and institutions, religion, language, and cultural norms (Ghamawat 2001). From an institutional approach, culture can be considered as a part of the milieu of informal institutions, which support or reinforce formal institutions (Peng, Wang, and Jiang 2008). The established argument is that cultural distance between countries creates obstacles for doing business overseas and therefore it influences location investment decisions of multinationals in the host country.

Cultural differences may lead to misunderstanding and communications gaps (Blomkvist and Drogendijk 2013), the increase of post-investment costs (Malhotra, Zhu, and Locandr 2010) and making more difficult to build firm reputation and legitimacy in the host country (Cui and Jiang 2010). Conversely, cultural proximity will reduce transactions costs and the risks of foreign market entry, because of resemblance of business laws, customs and ways of doing business (Johanson and Vahlne 2009). For these reasons, cultural distance is considered a factor that has a relevant influence on the multinationals investment location decisions (Kang and Jiang 2012).

Past empirical research provides support for the negative relationship between cultural distance between the home and the host country and outward foreign direct investment location choice. (Bhardwaj, Dietz, and Beamish 2007; Holburn and Zelner 2010; Ojala and Tyrväinen 2007). However, in the case of Chinese firms, empirical evidence is not conclusive with regards

the influence of cultural distance on their outward foreign direct investment. Several studies found that cultural distance between China and the host country was negatively related with Chinese outward foreign direct investment in that country (Buckley et al. 2007, 2016b, Haiyue and Manzoor 2020, Mohsin et al., 2021, Malhotra, Zhu, and Locandr 2010); while other studies did not support these findings (Kang and Jiang 2012, Li, Li, and Shapiro 2012, Quer, Clave, and Rienda 2012, Ramasamy, Yeung, and Laforet 2012).

Kang and Jiang (2012) reported only a marginal support for the negative association between cultural distance and Chinese outward foreign direct investment. While, Li, Li, and Shapiro (2012), Quer, Claver, and Rienda (2012) and Ramasamy, Yeung, and Laforet (2012) obtained mixed results, since they used a specific measure of cultural distance or their research was focused on Chinese state-owned enterprises (SOEs)

According with the aforementioned arguments, we posit that despite cultural distance between China and host country influences Chinese outward foreign direct investments differently, still bear a negative effect. Therefore, we hypothesize.

Hypothesis 4: *Cultural distance between China and host-country is negatively related to the Chinese technology outward foreign direct investment in that country.*

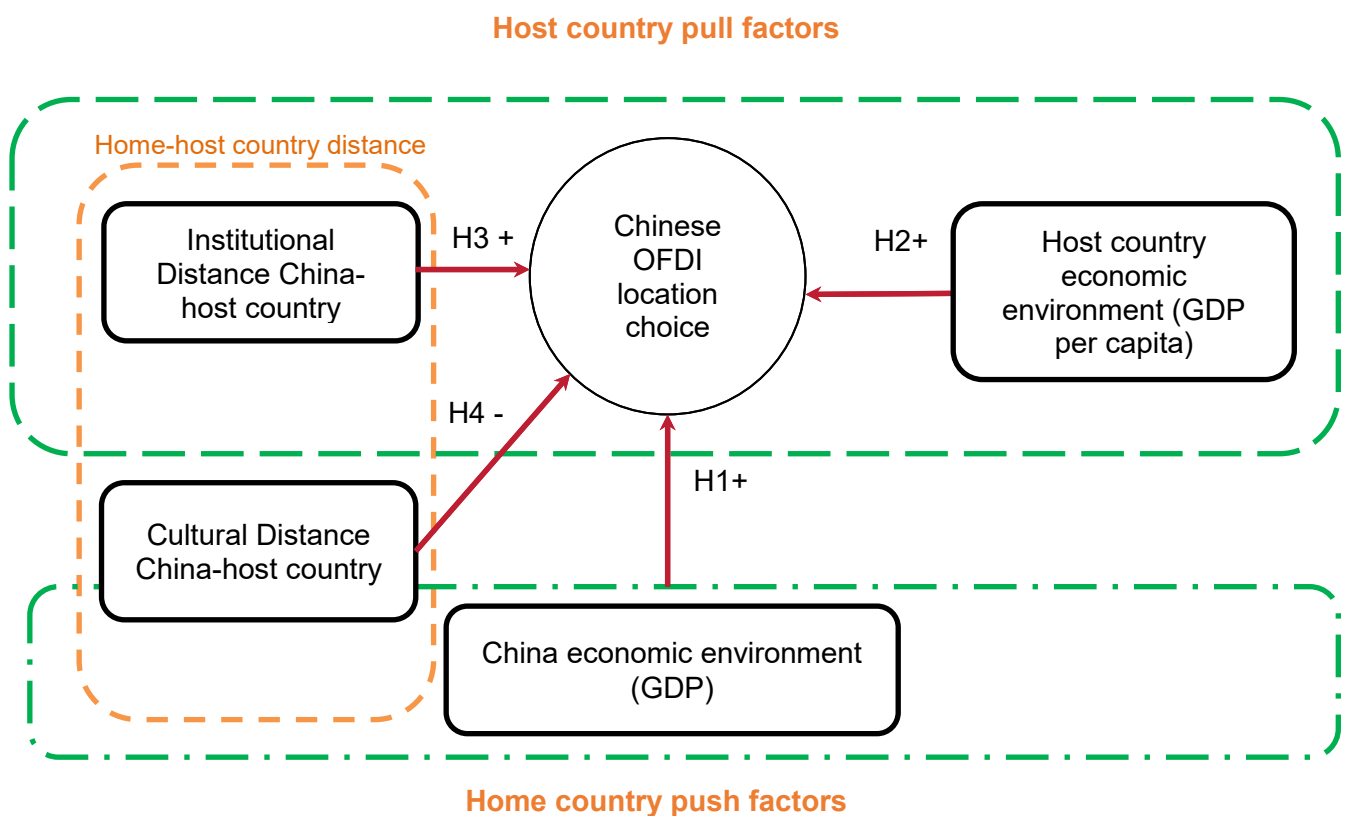The figure below represents the theoretical model of this study

Figure 8. Theoretical framework

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1.6 Conclusion Chapter 2

Diverse researchers on emerging markets firms' internationalization argues that emerging markets multinationals (EMNEs) may internationalize in order to overcome their ownership disadvantage. Ohers scholars' claims that EMNEs enjoy a range of country-specific advantages that enable them to benefit considerably from internationalization. Finally, according to another view on the literature, emerging markets multinationals have developed specific advantages that differ from the developed-markets multinationals often possess.

The literature on EMNEs internationalization, contends that technology-driven outward foreign direct investment from emerging markets multinationals (EMNEs) is mainly directed to existing technological hubs in developed countries aiming at augmenting their technological capabilities through acquisitions and greenfield investments. On the other hand, compared to developed countries, emerging markets are weakly equipped with human capital or innovation capabilities to generate sophisticated patents or technology. Hence the innovation capacity of the emerging markets is limited to exploit innovative resources.

However, technology-driven foreign investments from emerging markets multinationals (EMNEs) do not always seek developed economies and technology foreign investments from EMNEs into emerging economies are risen, indicating that there are factors in these economies that can prove attractive. In the case of the Latin America and Eurasian regions, Chinese outward foreign direct investment has risen considerably and technology related investment have risen as well indicating the importance of new types of high-value-added target industries in these markets

The figure 8, depicts the theoretical model that from a push - pull perspective that combines hypotheses with regards the factors that influence the origin and location choice of Chinese multinationals foreign tech-investments in other emerging economies.

Economic growth and rising consumption levels in emerging economies are motivating emerging market firms (EMFs) to invest and develop technical innovations. Consequently, a sustained economic growth in China homeland stimulates the Chinese firms to invest and develop specific ownership advantages such as technical innovations that they can leverage in foreign markets. Concurrently, host countries with larger market size and faster economic growth will provide more opportunities for investing Chinese firms to exploit their ownership advantages in these markets. Whit regards the institutional environment; multinationals' strategies in emerging markets are greatly influenced by institutional forces due to significant economic and political reforms. The institutions influence firms not only by supporting economic transactions but also they benefit

different types of firms, particularly state owned firms and firms in strategic sectors through their resources and capabilities.

Companies with state ownership are special participants in economic and political relations among countries. We assume that they pursue not only economic, but also political or social goals, therefore state companies can behave differently than private companies, namely - they are more likely to follow the strategy formed initially and have more access to resources and government support. Taking into consideration the large number of Chinese State Owned Enterprises (SOEs) carrying out investment in other emerging markets and the fact that these firms tend to have a favorable position in Chinese country's institutional system that empower them by providing them support and access to resources to embark on foreign investments. Therefore, we assume a supporting role of the Chinese government as OFDI facilitator, which helps to reduce the risk faced by its companies by strengthening economic and political ties with countries with weak institutional and diverse cultural environments. These lead us believe that institutional distance between China and the host country, seems not affect Chinese multinationals' outward foreign direct investment location choice in a conventional negative way but rather the opposite.

Regarding China-host country cultural distance, large cultural differences may lead to Chinese firms to experience misunderstanding and communications gaps that increases the post-investment costs and make more difficult to for the Chinese multinational to build reputation and legitimacy in the host country. Conversely, cultural proximity will reduce transactions costs and the risks of foreign market entry, because of resemblance of business laws, customs and ways of doing business. Therefore, we posit that cultural distance between China and host country have negative influence on Chinese technology investments in the country.

CHAPTER 3. EMPIRICAL ANALYSIS OF THE DETERMINANTS OF TECHNOLOGY INVESTMENTS FROM CHINA INTO OTHER EMERGING ECONOMIES: A COMPARATIVE ANALYSIS

This chapter presents the strategy and design of the empirical study aimed at testing the theoretical model of this study. As a result of the conducted empirical analysis, a significant relationship between the host country economic development and natural resources endowments and Chinese technology investments into that country while the host county institutional distance and political environment seems not influence these investments. The results also suggest that Chinese technology outward foreign direct investments towards Latin America and Eurasian regions are strongly driven by state-owned enterprises (SOEs) and thanks to the support provided by their government might be less affected by the host-country political and institutional environment.

1.7 Strategy and design of the empirical research

1.7.1 <u>Data collection and sample description</u>

To test our hypotheses, we constructed a data set of outward foreign direct investments carried out by Chinese multinationals in Latin America and Eurasia from various sources of secondary data. The main data source was the China Global Investment Tracker, a database of China's outward foreign direct investment compiled by the American Enterprise Institute and the Heritage Foundation (https://www.aei.org/china-global-investment-tracker), and information from each firm's corporate website.

The data collected cover the period from 2005 until 2019. The analysis revealed low Chinese foreign direct investment level until 2005, when Chinese outward foreign direct investment flows sharply increased (The World Bank Group, 2021). That is why 2005 was determined to be the starting point of our quantitative analysis. The ending point of the analysis is 2019 because the macroeconomic and institutional indicators were available only until 2019.

The present study focuses on Chinese outward foreign direct investments flows towards the Latin American region, that includes the South and Central America plus Caribe and Mexico and the Eurasian region that include the majority of the former soviets' socialist republics. This study follows the Eurasian region definition of the *InfoSci-Dictionary* as "The alignment of the former USSR countries underpinned by the historical, geographical, economic and geopolitical factors" (https://www.igi-global.com/dictionary

The data collected was done with the help of several decision criteria: the time period – from 01/01/2005 to 31/12/2019; the acquirer country – China; the industry macro sector – Technology, Energy, Chemicals, Transport, Logistics, Utilities, and Healthcare; the target countries: – Latin America (Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Ecuador, Guatemala, Guyana, Honduras, México, Nicaragua, Panamá, Paraguay, Peru, and Venezuela); Eurasia (Azerbaijan, Belarus, Georgia,, Kazakhstan, Kyrgyz Republic, Latvia, Moldova, Russian Federation, Tajikistan, Turkmenistan, Ukraine and Uzbekistan).

To filter the technological sector, we follow the OECD classification of manufacturing industries into categories based on R&D intensities (ISIC Rev.3, 2011) as well as the transitional adaptation implemented by Eurostat in NACE Rev.2 (2008), to include the services sector.

ISIC REV. 3 TECHNOLOGY INTENSITY DEFINITION

Classification of manufacturing industries into categories based on R&D intensities

High-technology industries

Aircraft and spacecraft

Pharmaceuticals

Office, accounting and computing machinery

Radio, TV and communications equipment

Medical, precision and optical instruments

Medium-high-technology industries

Electrical machinery and apparatus, n.e.c.

Motor vehicles, trailers and semi-trailers

Chemicals excluding pharmaceuticals

Railroad equipment and transport equipment

Machinery and equipment, n.e.c.

Medium-low-technology industries

Building and repairing of ships and boats

Rubber and plastics products

Coke, refined petroleum products and nuclear fuel

Other non-metallic mineral products

Basic metals and fabricated metal products

Low-technology industries

Manufacturing, n.e.c.; Recycling

Wood, pulp, paper, paper products, printing

Food products, beverages and tobacco

Textiles, textile products, leather and footwear

Table 1 Classification of manufacturing industries into categories based on R&D intensities - OECD ISIC REV. 3

To avoid the bias created by the inadequate inclusion of such tax havens in the foreign direct investment statistics, we have filtered out the financial investments and offshore centers in the Caribbean region.

We identified 213 foreign direct investments deals carried out 64 Chinese multinationals into 17 Latin American countries and 158 foreign direct investments deals carried out 57 Chinese multinationals into 12 Eurasian countries between 2005 and 2019. We set as objective to analyze the amount of monthly investment done by Chinese multinationals in a specific host country in a given year from 2005-2019. We decided to analyze the amount of foreign direct investment deals in a host country as we think it can better capture how certain factors influence the location choice of Chinese firm into the Latin America and Eurasian region. Therefore, our initial dataset included 5.517 observations (213 foreign direct investments deals multiplied by 17 LA host countries plus 158 foreign direct investments deals multiplied by 12 Eurasian countries).

After accounting for monthly Chinese foreign direct investment values for each host country per year and removing duplicated observations - summing together various investment value deals per host country in given month during the same year - our final sample for analysis included 4920 (3264 observations for Latin America, plus 1656 observations for the Eurasian

region).

With regard to the host countries in Latin America, it emerges that Brazil is the top destination for Chinese outward foreign direct investment in the region, followed by Peru, Argentina, Venezuela, Ecuador and Chile etc. When it comes to Chinese firms, China Communications Construction is the top investor with 18910 million $, followed by Power Construction Corporation, Three Gorges, State Grid, Sinomach, China National Petroleum Corporation, etc. These top investors are state-owned enterprises (SOEs), which account for 83,5 % of the investments in the region covered by our sample. The 16,43% remaining are Chinese private investors: ZTE, Huawei, BYD, Harbin Electric, etc.

Chinesse tech - OFDI stock in millions·US $ (2005-19)

Figure 9: Chinese outward foreign direct investment in Latin America by country (2005-2019). Source: created by the author using data from the American Enterprise Institute 2021

With regard to the Eurasian region host countries, it emerges that the Russian Federation is the top destination of Chinese outward foreign direct investments, followed by Kazakhstan, Ukraine, Uzbekistan, Belarus, etc. When it comes to Chinese firms investing in Eurasia, China National Petroleum Corporation is the top investor with 13880 million $, followed by Sinomach, Power Construction Corp, China International Trust Investment Corporation, etc. These top investors are state-owned enterprises, which account for 78,48 % of the investments in the region covered by our sample. The 21,52% remaining are Chinese private investors: Tebian Electric Apparatus, Bomesc Offshore Engineering, Alibaba, etc.
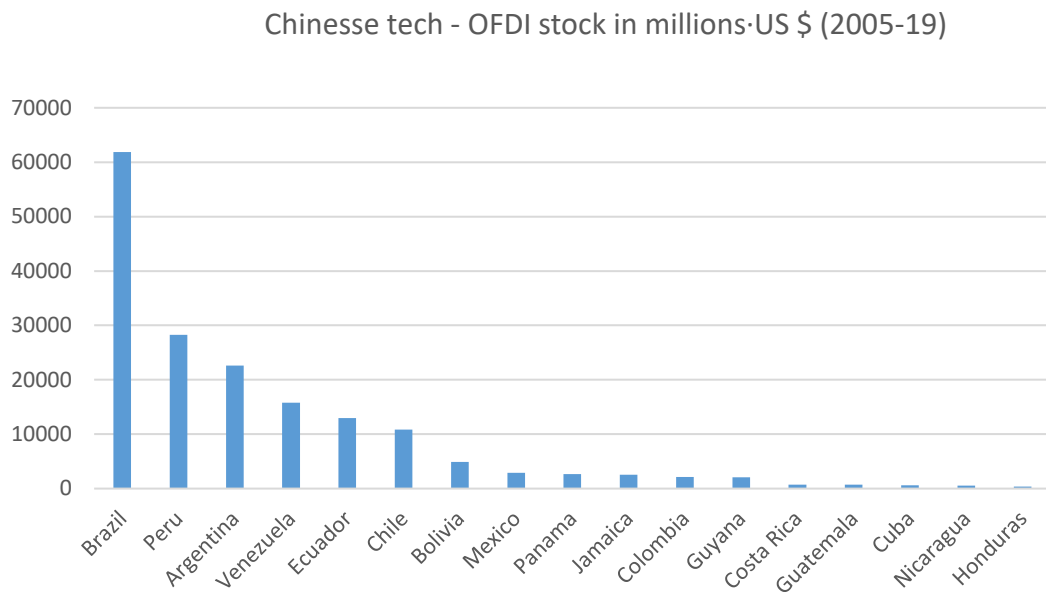
Chinesse tech - OFDI stock in millions US $ (2005-19)
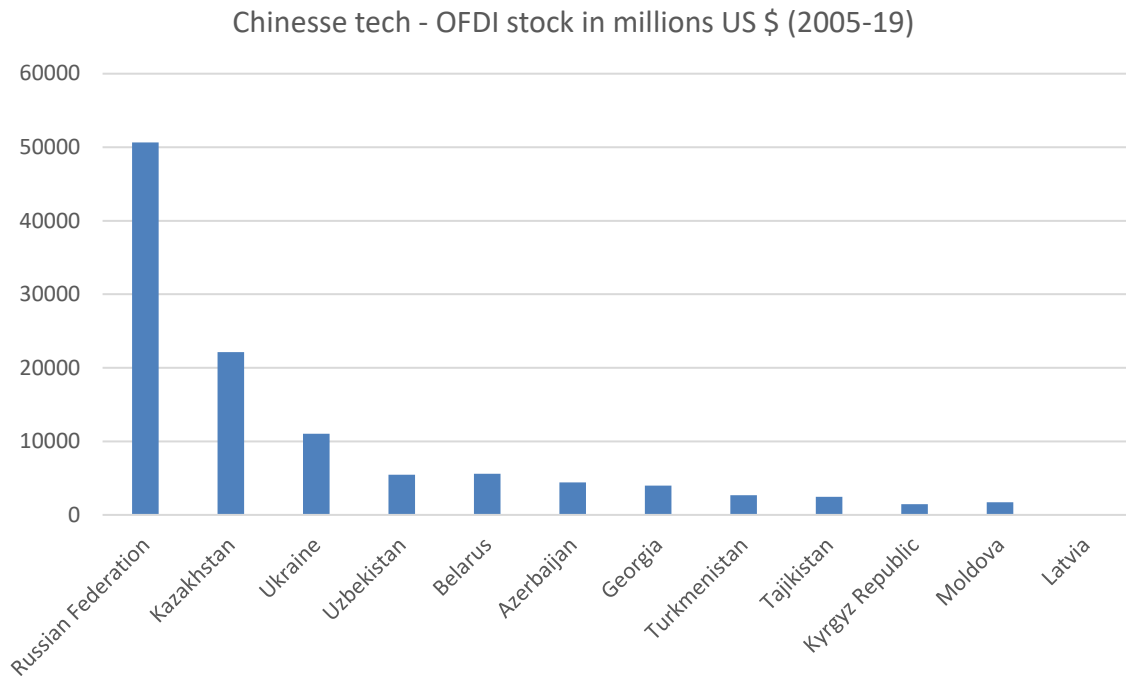
Figure 10: Chinese outward foreign direct investment in Eurasia by country (2005-2019). Source: created by the author using data from the American Enterprise Institute 2021

The development and governance indicators were taken from World Bank database. The world governance indicators (WGI) were built up by Kaufmann, Kraay and Mastruzzi (2011) and covers more than 200 countries. We also used the International Country Risk Guide (ICGR) developed by the Political Risk Services Group (https://www.prsgroup.com), which includes a Political Risk Index that in turn consists of 12 components measuring various dimensions of the political and business.

1.7.2   Operationalization of the variables

Dependent variable

The monthly value of foreign direct investment deals carried out by Chinese multinationals per host country and year are taken as dependent variables in the correspondent statistical model of the study. The decision to analyze the monthly amount of foreign direct investment deals in a host country allows to better understand the investment flows and capture how certain factors influence the location choice in the host country

Independent variables

Two sets of explanatory variables are introduced in the model – macroeconomic and

institutional.

Home country development. China gross domestic product (GDP) is taken as measure of the home country economic development. As postulated by Dunning (1988) the outward foreign direct investment from a country is associated with the stage of its economic development measure by its GDP. Callen (2008) states that GDP is critical as it gives information about the size of the economy in a given country and how this economy is performing. The data is obtained from the World Bank Development Indicators and the unit used is US dollar.

Host country market size. This study uses gross domestic product (GDP) per capita as a proxy for market size (Buckley et al. 2007; Chen, Dollar, and Tang 2016, Zhang 2018). The GDP per capita shows the level of development and captures the size of the demand in the host country that both attract foreign direct investments inflows. The data is extracted from the World Bank Development Indicators and the unit used is US dollar.

Institutional distance. To operationalize institutional distance, we based on the six dimensions of the Worldwide Governance Indicators (WGI) project of the World Bank: Voice and Accountability, Political Stability and Absence of Violence, Government Effectiveness, Regulatory Quality, Rule of Law and Control of Corruption. Each index is roughly between –2.5 and 2.5, the higher the value, the higher the system quality of the country. Using these dimensions, we calculated the institutional distance between China and each host country using the methodology developed by the Kogut and Singh's (1988) index for measuring cultural distance between countries. The KSI index method has been used in previous IB studies (Li, Li and Shapiro 2012, Malhotra and Gaur 2014, Zhang and Xu 2017). A high score on this measurement means a greater institutional distance between home and host countries. Thus, we measured institutional distance as follows:

$$ID_j = \sum_{i=1}^{6} \left\{ (I_{ij} - I_{ich})^2 / V_i \right\} / 6$$

Where IDj is the institutional distance between country j and China, Iij is country j's score on the ith institutional dimension, Iich is the score of China on this dimension and Vi is the variance of the score of the dimension

Cultural Distance. This variable is operationalized by implementing the Kogut and Singh (1988) index, to the Hofstede's model with four dimensions (Hofstede, Hofstede, and Minkov 2010). The dimension of Power Distance, Uncertainty Avoidance, Individualism vs. Collectivism and Masculinity vs. Femininity measurements of each country are obtained from the Hofstede Center website (www.hofstede-insights.com). A high score on this measurement means a greater

cultural distance between home and host countries that we account in this study. This index has been used in prior studies on Chinese outward foreign direct investment (Quer, Clave, and Rienda 2018, Xu, Hu, and Fan 2011). Thus, we measured cultural distance as follows:

$$CD_j = \sum_{i=1}^{4} \left\{ (I_{ij} - I_{ich})^2 / V_i \right\} / 4$$

Where CDj is the cultural distance between country j and China, Iij is country j's score on the ith cultural dimension, Iich is the score of China on this dimension and Vi is the variance of the score of the dimension.

Control variables

We account for a number of factors that have been shown to affect location decisions of Chinese multinationals in prior research. More precisely, we account for host county political risk and host country natural resources endowment to respectively control for host country's political instability that might affect business environment and for potential resource seeking motivation of the Chinese outward foreign direct investment decision. The reason to account for the resource seeking motivation, aroused by the medium to low technology intensity classification that the OECD taxonomy of economic activities based on R&D intensity (ISIC Rev.3, 2011) does for coke, refined petroleum products, mining and quarrying industries. We also included the dummy variables of greenfield project investment, as indirect measure of the technology intensity of the investment, as well as for home-host country linkages and Belt and Road Initiative to account for home–host country sociopolitical-economic linkages as factor that may facilitate firm investments in between home - host country.

Political Risk. To account the probability disruption of the host country's business environment by political events we use the Political Risk Index of the International Country Risk Guide developed by the Political Risk Services Group. This measure has been used in prior studies (Buckley et al. 2007, 2016b; Duanmu 2012, Duanmu and Guney 2009). To operationalize Political Risk, we use the component of Political Stability and Absence of Violence of the aforementioned the index. The scores assigned in this dataset vary between 0 and 1, where high scores signify better quality of host country political environment and less political risk. To facilitate the interpretation of the results, we transformed the values of this index. Accordingly, higher values indicate higher political risk.

Natural resource endowment. Firms aim at controlling and accessing natural resources available in a host market. The natural resource endowment of the host country is used as a proxy of a resource seeking motivation. The measurement account for the percentage of fuel, ore and

metal exports rents of total gross domestic product (GDP) by host country, indicating the contribution of natural resources to the country's economic output. The data is collected from the World Development Indicators of the World Bank and this measure has been used in prior studies (e.g. Shan et al. 2018. Buckley et al. 2007, 2016b)

Home–host country-specific linkages. Political or economic ties of a home country with other countries that can become a source of competitive advantage for their multinational firms based in countries having such links. It has been argued trade agreements has a positive effect on China 's outward foreign direct investment (Peng et al,2020) and emerging markets multinationals utilize such linkages as competitive tools (Mathews, 2009). To account for this, we operationalize such linkages with a dummy variable that takes value "1" if China and the host country have signed a Free Trade Agreement treaty and "0" if opposite. China have signed Free Trade Agreements with the following countries in our study: Peru, Chile, Costa Rica and Georgia (Source: Ministry of Commerce People's Republic of China - http://fta.mofcom.gov.cn/english/fta_qianshu.shtml).

Belt and Road Initiative. Since 2013, China is investing in the Belt and Road Initiative (BRI) that is a transcontinental long-term policy and investment program, aiming at infrastructure development and promotion of the connectivity of the Asian, European and African continents and their adjacent seas. To account for the host countries that have joined the Belt and Road Initiative (BRI) by signing a Memorandum of Understanding (MoU) with China, we operationalize such link with a dummy variable that take value "1" if the if the host country has joined BRI (signed MoU) and taking the value "0" if opposite. (Source: Belt and Road portal -www.yidaiyilu.gov.cn)

Greenfield. We account for greenfield type of investment as dummy variable that takes the value "1" if the Chinese investment is a greenfield project and "0" if not. This variable is used an indirect proxy measure of the technology intensity of the investment. Firms with higher technology levels prefer greenfield projects to acquisition (Andersson and Svensson 1994; Barkema and Vermeulen 1998; Brouthers and Brouthers 2000). Acquisition is preferred for companies with lower technology levels since they strive to obtain technology via acquisitions (Hennart and Park 1993; Kogut and Singh, 1988).

The definition and the source of each variable in our model are highlighted in Table 2

	Variables Name	Type Variable	Indicators	Expected Sign	Data Sources
Dependent variable	OUTWARD FOREIGN DIRECT INVESTMENT	Foreign investment by Chinese firms	Monthly value of FOREIGN DIRECT INVESTMENT deals		American Enterprise Institute and the Heritage Foundation
Independent variables	China GDP	China Economic development	GDP	+	World Bank Development Indicators (WDI)
	Host country GDP per capita	Host country macroeconomic environment	GDP per capita	+	World Bank - World Development Indicators,
	Institutional distance	China – host country Institutional distance	Kogut & Singh index based on governance Indicators (WGI)	+	World Bank Governance Indicators (WGI)
	Cultural distance	China – Host country Cultural distance	Kogut & Singh index on Hofstede's cultural dimensions	-	Hofstede's cultural dimensions
Control variables	HC natural resources	Natural resource endowment of host country	Percentage of fuel, ore and metal exports rents of country's total GDP	+	World Bank Development Indicators (WDI)
	Political Risk	Host country political environment	Political Stability and Absence of Violence	-	International Country Risk Guide (ICRG)
	Free Trade Agreement	Trade linkages (Dummy)	China-host county Free Trade Agreement	+	Ministry Of Commerce People's Republic Of China
	Greenfield	Type of deal (Dummy) (technology intensity investment)	Greenfield investment in host county	+	AEI-The Heritage Foundation 2020
	Belt and Road Initiative (BRI)	Socio-political-economic linkages (Dummy)	Signature of BRI Memorandum of Understanding (MoU) with China	+	Belt and Road portal www.yidaiyilu.gov.cn

Table2: Variables and data sources

1.8 Model Specification

This chapter contains a thorough explanation regarding the methodology and tools in executing the modeling process. Based on the data properties, the panel data regression is chosen as the method to develop the model in this study. In general, there are eight major milestones executed in building the models, as shown in figure 10. All data processing phases will be conducted by STATA software. This chapter explains each milestone comprehensively in ensuring that the modeling process is conducted in a correct and systematic manner.
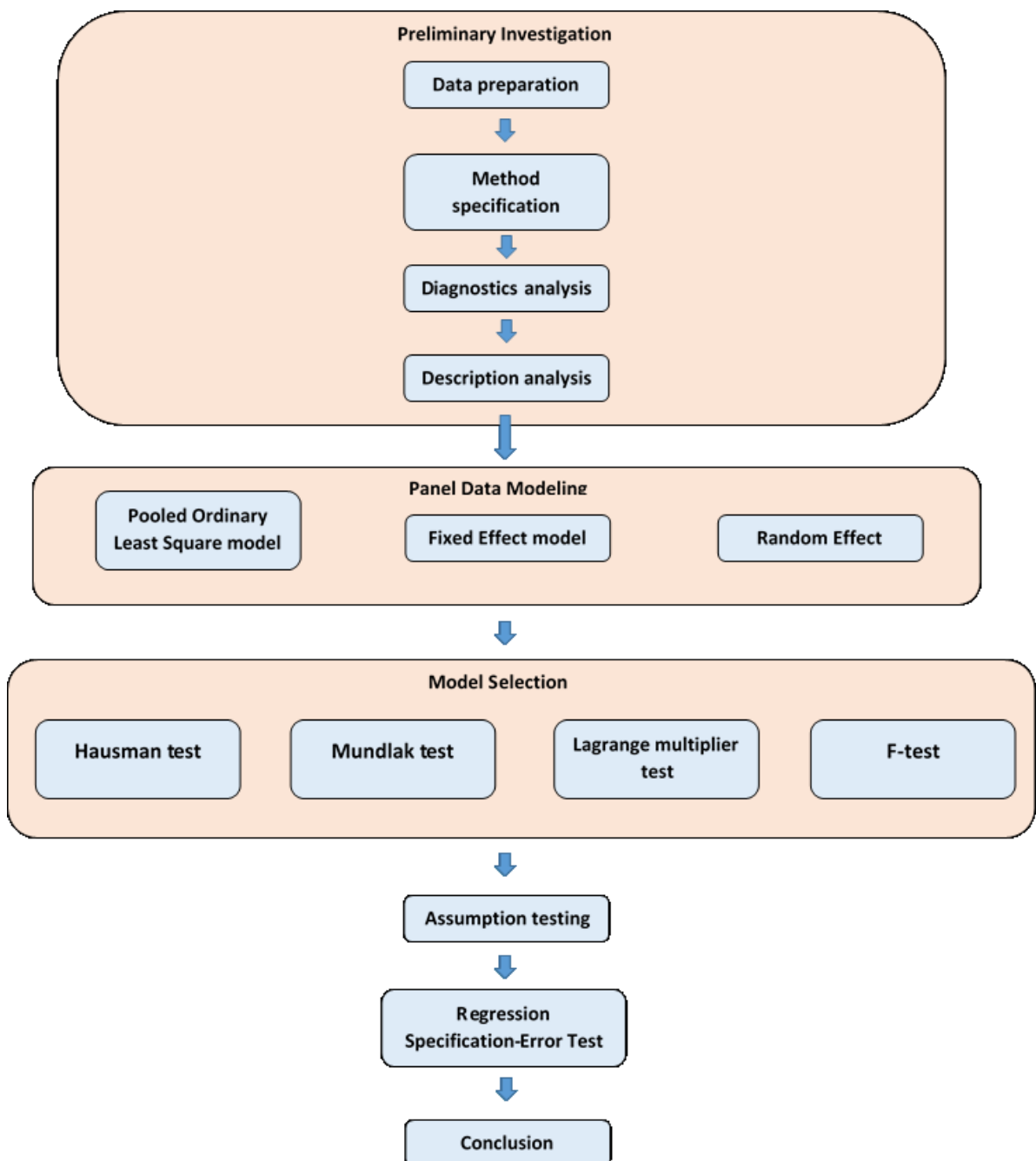

Fig 10: Model Specification and Model Selection

Method of empirical analysis

In order to estimate the home-host country macroeconomic and institutional effects on Chinese foreign direct investment flows into the Latin America and Eurasian regions, a quantitative data analysis was undertaken. A regression analysis method is applied for those data sets that revealed strong correlation between dependent and statistically significant independent variables. Several figures in the regression outputs were analysed: R square, F-statistics, the parameters estimated by the model and their respective statistical significance based on which the conclusions were drawn.

The regression analysis is a powerful statistical method that allows you to examine the relationship between two or more variables of interest. It helps to analyse how the dependent variable changes in response to variations in one or several independent variables. Thus, it allows identifying the magnitude between dependent and independent variables and the sign of the relationship. Regression analysis is commonly used for forecasting and prediction. Dependent, independent and control variables were associated with one period in time.

We matched the dependent variable (Outward Foreign Direct Investments deal value) each month per year by host country and collected explanatory variables (such as home and host country's GDPs, cultural and institutional distances) as well as control variables (such as host country political risk, host country natural resources, country specific linkages and greenfield investment) by year for each host country to create a panel data set.

Thus, our model is as follow:

$OFDI_{it} = \alpha + \beta 1(Ch\_gdp)_{it} + \beta 2(HCgdp\text{-}cap)_{it} + \beta 3(Inst\_Dif)_{it} + \beta 4(Cul\_Dif)_{it} + \beta 5(Pol\_Risk)_{it} + \beta 6(N\_RESOURCE)_{it} + D1(T\_AGREEMENT)_{it} + D2(BRI)_{it} + D3(Greenfield)_{it} + \varepsilon_{it}$

As we expect a non-linear relationship among the variables, we transformed both the dependent and independent variables, excluding dummy variables, into natural logarithms and derived a log–log linear model. The log–log function enables the transformation of relationship between our dependent and independent variables into a linear one. After the transformation, the model reads:

$lnOFDI_{it} = \alpha + \beta 1ln(Ch\_gdp)_{it} + \beta 2ln(HCgdp\text{-}cap)_{it} + \beta 3\ ln(Inst\_Dif)_{it} + \beta 4ln(Cul\_Dif)_{it} + \beta 5ln(Pol\_Risk)_{it} + \beta 6ln(N\_RESOURCE)_{it} + D1(T\_AGREEMENT)_{it} + D2(BRI)_{it} + D3(Greenfield)_{it} + \varepsilon_{it}$

1.8.1   <u>Descriptive statistics and diagnostics analysis</u>

Prior to running the tests to select the regression model for our panel data, we checked

potential correlation and multicollinearity issues among all the variables. As reported in Table 2, the correlation matrix shows whether the variables are correlated with one another, and according to the results of the matrix, the variables used in this paper are not too highly correlated (<0.8). As well, to reject multicollinearity, we computed the variance inflation factor (VIF) test. As reported in the same table 2, all VIFs are well below 10, the cut-off point recommended by Kutner et al. (2005). Thus, we ruled out the existence of serious multicollinearity problems in our analysis.

Variable Name	Mean	Std. Dev.	VIF	1	2	3	4	5	6	7	8	9	10
1. OFDI	20.0055	1.0261	N/A	1.0000									
2. China GDP	29.8213	0.4461	1.66	-0.0677	1.0000								
3. HC GDP per capita	8.8602	0.6865	1.54	0.1783	0.2400	1.0000							
4. Institutional differences	-0.5759	0.7242	1.32	-0.0379	-0.0143	-0.1201	1.0000						
5. Cultural differences	0.6394	0.4381	1.16	0.0472	0.1406	0.2826	-0.0995	1.0000					
6. HC natural resources	1.8980	1.0551	1.30	0.1595	-0.2300	0.0626	-0.3463	0.0280	1.0000				
7. HC Political Risk	-1.1439	0.2919	1.28	-0.0598	0.2588	-0.2164	0.0125	0.0819	0.0746	1.0000			
8. Free Trade agreement	0.1621	0.3691	1.18	-0.0578	-0.0383	0.1428	0.0430	0.0708	0.0537	0.0448	1.0000		
9. Greenfield Investment	0.0764	0.2661	1.05	0.0856	0.1265	0.0589	0.2805	0.1280	0.0103	0.0845	0.0296	1.0000	
10. Belt & Road Initiative	0.1835	0.3877	1.38	-0.1520	0.3914	-0.1882	-0.0130	0.1032	-0.1361	0.1078	-0.0584	0.1312	1.0000

Table 3. Descriptive statistics and correlations

1.8.2   <u>Panel data modeling</u>

Panel data models examine group (individual-specific) effects, time effects, or both in order to deal with heterogeneity or individual effect that may or may not be observed. Heterogeneity (or individual effect) is present when any individual within the model is significantly correlated with the errors of the model. Based on the data properties of our data, the method chosen to develop the model in this research is panel data regression. The aims the panel data modeling in this study is to build the model by taking into account the possibility of heterogeneity in the series of data. Among the methods used for estimating the regression model using panel data, this study assessed three approaches, namely: Pooled Ordinary Least Square (Pooled OLS), Fixed Effect (FE), and Random Effect (RE) model.

Pooled Ordinary Least Square model

This type of panel data model (also known as Common Effect model), assumes that heterogeneity does not exist across individuals within the model. In other words, this model assumes that all countries within each region are identical, having the exact equal intercepts and slopes. Although the assumption is very strict and sounds illogical, it may still be possible for countries to behave identically in the long run.

Suppose the heterogeneity due to country i is denoted by v_{it}, then the as Pooled OLS model assumes that $v_{it} = 0$. Due to identical treatment across individuals, basically the CEM is not different from the OLS, which is formulated as follow:

$$y_{it} = \alpha + \beta X_{it}' + u_{it}$$

where y_{it} denotes the dependent variable of country i at the time t, which is the Chinese technology foreign direct investment inflow. Moreover, X_{it} denotes the vector of independent variables of country i at the time t, including the dummy variables when necessary, while β denotes the vector of parameters (slopes) of the independent variables. Under the Pooled OLS, the intercept α is constant across countries. Finally, u_{it} denotes the error term or disturbances, namely the factors beyond the independent variables that affect the dependent variable.

. In this model, time and individual dimensions are not considered, so it is assumed that the behavior of corporate data is the same in various periods. This method can use the Ordinary Least Square (OLS) approach to estimate the panel data model.

Fixed Effect model

This type panel data model is known as the Fixed Effect model (FE). Under this model it is assumed that heterogeneity is present across individuals (in our case: countries). The heterogeneity in the FE is modeled as the different intercept of one country compared to another.

Specifically, under this study, each country is assumed to be different from others in terms of its initial power in attracting Chinese technology foreign direct investments. For instance, suppose the economies of Brazil and Colombia perform well in the same years, Brazil is still superior in attracting more foreign direct investment inflows since this country has larger initial capital stock to impress the confidence of Chinese investor than Colombia.

In this model the heterogeneity due to country i is denoted by vi, then $vi \neq 0$ under the FE, which is formulated as follow:

$$yit = (\alpha + vi) + \beta Xit' + uit$$

where yit denotes the dependent variable of country i at the time t, which is the Chinese technology foreign direct investment inflow. Moreover, Xit denotes the vector of independent variables of country i at the time t, including the dummy variables when necessary, while β denotes the vector of parameters (slopes) of the independent variable. Differently, under the FE model, the intercept is no longer α but now incorporates the heterogeneity component vi namely $(\alpha + vi)$, which is varied across countries. The STATA command *xtreg,* with *fe* (fixed effect) option, support the execution of this model.

Random Effect model

Similar to the FE, the RE model also assumes the heterogeneity across individual (in our case countries). However, random effect model assumes that heterogeneity (individual effect) is not correlated with any regressor and then estimates error variance specific to countries (or times). This means that the heterogeneity is assumed as being attached to random shocks instead to intercepts. Since the heterogeneity is attached to random fluctuation, it is also attached to time t, in addition to country. This technique assumes that the heterogeneity across individuals is primarily driven by how diverse one country's factors (variables) fluctuate compared to others.

In other words, the REM assumes that even two countries of very different size, such as Russia and Belorussia, can have homogeneity if they fluctuate similarly and experience the same shocks. Accordingly, the technique also assumes that even two countries with a relatively equal size can trigger heterogeneity when they fluctuate differently and are exposed to different random shocks.

Suppose the heterogeneity due to country *i* at time *t* is denoted by vit, then $vit \neq 0$ under the RE model, which is formulated as follows:

$$yit = \alpha + \beta Xit' + (uit + vit)$$

where yit denotes the dependent variable of country *i* at the time *t*, which is the Chinese technology foreign direct investment inflow. Moreover, Xit denotes the vector of independent variables of country *i* at the time *t*, including the dummy variables when necessary, while β denotes the vector of parameters (slopes) of the independent variable.

Differently, under the RE model, vit is an individual specific random heterogeneity or a component of the composite error term. The intercept and slopes of regressors are the same across individual. The difference among individuals (or time periods) lies in their individual specific errors terms, not in their intercepts. The software STATA provides the command *xtreg* with *re* (random effect) option to support the execution of this model

1.8.3   Model Selection

As aforementioned, the unobserved heterogeneity is captured by three different models namely: Pooled Ordinary Least Square (Pooled OLS), Fixed Effect (FE), and Random Effect (RE), with their own assumptions. That is, the pooled OLS assumes that the countries under the same region are identical or no heterogeneity is found. On the other hand, the FE assumes that the countries in the same region are heterogeneous where the heterogeneity is associated with the intercepts. Finally, the RE also assumes that the heterogeneity across countries under the same region exists in the model, but its heterogeneity is attached to the error and owns random properties, instead of being attached to intercept.

To select the most appropriate model, several tests were considered. We began conducting the Hausman (1978) test (also called Hausman Specification Test) and Mundlak (1978) test to decide between a Fixed Effect model and a Random Effects model and to detect endogenous regressors. Endogeneity is referred to here as the situation in which an explanatory variable (regressor) is correlated with the error term (Greene 2012).

Subsequently, we conduct appropriate formal tests to examine individual group and/or time effects in our panel data. Namely, we conduct the F-test and the Breusch-Pagan's (1980) Lagrange multiplier (LM) test to examine if there is a significant fixed group or random effects in our panel data. The former compares a Fixed Effect model and pooled OLS to see how much the fixed effect model can improve the goodness-of-fit, whereas the latter contrasts a Random Effect model with pooled OLS.
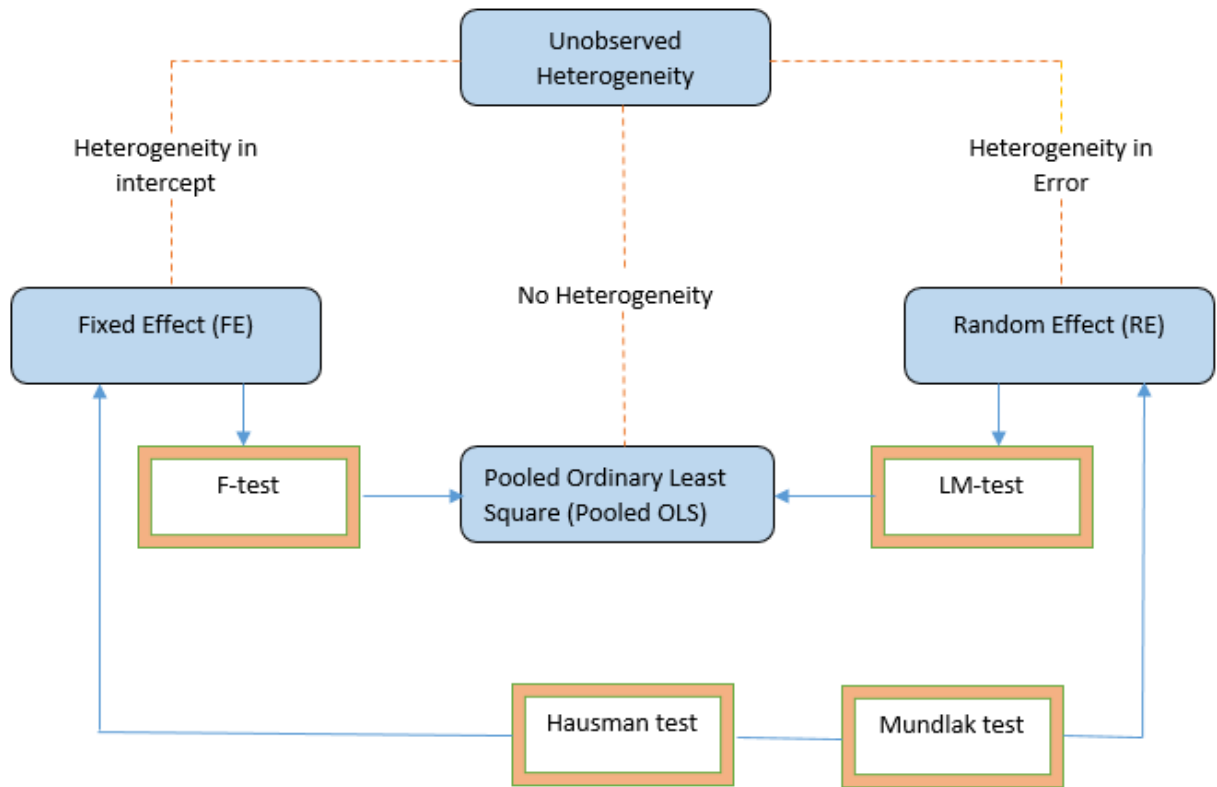
Fig 11. Model Selection Process

1.8.4   Hausman and Mundlak test: Testing for endogeneity

According to Kennedy (2008), endogeneity can arise as a result of measurement error of independent variables, when the explanatory variable is jointly determined with the dependent variable (simultaneity) and when an unobserved or omitted variable is confounding both, independent and dependent variables.

Durbin–Wu–n test

The Hausman Test (also called Durbin–Wu–Hausman test) detects endogenous regressors and this helps to choose between a fixed effects model and a random effects model. Essentially, this test looks to see if there is a correlation between the unique errors and the regressors in the model (test for endogeneity). Hausman test fundamentally examines if "the random effects estimate is insignificantly different from the unbiased fixed effect estimate" (Kennedy, 2008).

Suppose bFE is the estimator for the FE model and bRE is the estimator for the RE model . Hence, the Wu-Hausman statistic is given by

$$H = (bFE - bRE)'(\ Var(bFE) - Var(bRE))\ (bRE - bFE)$$

The statistic H follows the chi-squared distribution with the number of degrees of freedom equal to the rank of matrix $Var(bFE) - Var(bRE)$. The decision criterion is that the null hypothesis (no endogeneity) is rejected if the p-value of H statistic is below the level of significance of 0.05 (5%).

If the null hypothesis of no correlation is rejected, you may conclude that individual effects *vi* are significantly correlated with at least one of the regressors in the model and thus the random effect model is problematic. The table 2 display the properties of the random and fixed effects models estimators.

Correct hypothesis	Random effects model used	Fixed effects model used
H0: $Cov\ \alpha i, xit = 0$ **Exogeneity**	Consistent Efficient	Consistent Inefficient
H1: $Cov\ \alpha i, xit \neq 0$ **Endogeneity**	Inconsistent	Consistent Possibly Efficient

Table 4: Properties of the random and fixed effects models estimators.

In our study, we run the Hausman test to ascertain whether the fixed-effect or the random-effect model is more appropriate for the estimation of our regression model while at the same time detects endogenous regressors

As Table 5 shows, the p-value (Prob > chi2) of the Hausman test is 0.8336, meaning that the null hypotheses cannot be rejected. In this instance, the Hausman test deems the Random Effect model to be the more appropriate one and that there no endogeneity issues in our panel data

Test: Ho: difference in coefficients not systematic

chi2(7) =   4.25

Prob>chi2 =   0.8336

Table 5. Hausman test

As a robust check, we implement the Mundlak test to verify if observed variables are uncorrelated with the unobserved variables in our panel data. This technique was proposed by Mundlak (1978) as a way to relax the exogeneity (no endogeneity) assumption in the random effects estimator. Basically, we want to test whether the time-invariant unobservable variables are related to variables in our RE model.

Unlike the Hausman test, the Mundlak approach may be used when the errors are heteroscedastic or have an intragroup correlation. The key to the Mundlak approach is to determine if time-invariant unobservable variables α_i and regressor x_{it} are correlated. The idea is to control for the correlation between x_{it} and α_i by specifying

$$\alpha_i = \overline{x}_i \theta + v_i$$

$$E(\alpha_i|x_i) = \overline{x}_i\theta$$

Where $\underline{x}_i$ is the panel-level mean of x_{it}, and v_i is a time-invariant unobservable that is uncorrelated to the regressors, and then applying to linear panel-data model is given by:

$$y_{it} = x_{it}\beta + \alpha_i + \varepsilon_{it}$$
$$y_{it} = x_{it}\beta + \overline{x}_i\theta + v_i + \varepsilon_{it}$$
$$E(y_{it}|x_{it}) = x_{it}\beta + \overline{x}_i\theta$$

As in regression, if $\theta=0$, we know that α_i (time-invariant unobservables) and the regressors x_{it} are uncorrelated. This is what we test with the Mundlak test and is given by the null hypotheses

$$H_o:\theta=0$$

We compute this test in Stata using the command *mundlak* that estimates random-effects regression models (xtreg, re) adding group-means of variables in independent variables which vary within groups. Subsequently, we test if the panel-level means generated by mundlak estimation are jointly zero using the Test command in Stata.

If you reject the null hypothesis of $H_o:\theta=0$, fundamentally you reject that the coefficients are jointly zero and the test indicates that there is a correlation between the time-invariant unobservables and the regressors, namely, the fixed-effects assumptions are satisfied. If you cannot reject the null hypothesis, there is evidence of no correlation between the time-invariant unobservable and the regressors; that is, the random effects assumptions are satisfied. Therefore, the hypothesis of this test in our study are set as

H0 = There is exogeneity and random effects assumption is satisfied

H1 = There is endogeneity and the fixed effects assumption is satisfied

We computed this test and examined if the panel-level means estimates are jointly zero using the Test command in Stata. The test results are displayed in Table 6

Test: Ho: panel means coefficients are jointly zero

(1) mean__Ln_GDPCh = 0

(2) mean__Ln_gdpHCcapita = 0

(3) mean__Ln_ID = 0

(4) mean__Ln_NaRe = 0

(5) mean__Ln_PRisk = 0

(6) mean__Greenfield = 0

(7) mean__FreeTradeAgrement = 0

(8) mean__BRI = 0

$$chi2(8) = 3.35$$
$$Prob > chi2 = 0.9105$$

Table 6. Mundlak approach test

As table 6 displays, the results of the Mundlak approach test show a p-value of 0.9105 well above the 0.05 (5%) significance level, indicating that the null hypothesis cannot be rejected. This evidences that there is no correlation between the time-invariant unobservables and the regressors in our data. Hence, we can conclude that the random effects assumption of no endogeneity is satisfied and is a better estimator than fixed effects in our study.

1.8.5 The Breusch-Pagan Lagrange multiplier (LM) test: Testing random effects

In the previous section, both Hausman and Mundlak test confirmed existence of exogeneity (no endogeneity) in our panel data and indicated that random effects is better than fixed effects estimator in our study.

With this test, we want to evaluate if there is a significant random effect in our panel data. The Breusch-Pagan's (1980) Lagrange multiplier (LM) test examines if any random effect exists. Basically, this test compares a random effect model with pooled OLS model. The null hypothesis is that individual-specific or time-specific error variance components are zero: $H_0: \sigma^2_u = 0$. In others words, if the null hypothesis is not rejected, the pooled OLS is favored; otherwise, the random effect model is better. Therefore, the hypothesis of this test in our study are set as:

H0 = Pooled OLS is superior to Random Effect

H1 = Random Effect is superior to Pooled OLS

The decision criterion is that the null hypothesis is rejected if the p-value of H0 statistic is below the level of significance of 0.05 (5%). Practically, STATA simply provides the command *xttest* to run the LM test.

As Table 7 shows, the LM test p-value (Prob > chibar2 = 1) is above the 0,05 significance level, therefore, the test deems that there is not a significant random effect in the panel data and the pooled OLS model is favored as is able to deal with heterogeneity better than the Random Effect model.

Test: Var(u) = 0   H0: individual time-specific error variance components are zero

$$chibar2 (01) = 0.00$$
$$Prob > chibar2 = 1.0000$$

Table 7. Breusch-Pagan's Lagrange Multiplier (LM) test

1.8.6   F-test: testing a fixed group effect

As a robust check, we conduct an F-test to evaluate if there is a significant fixed group effect in our panel data. This test contrasts Fixed Effect (robust model) with the pooled OLS (efficient model) and examines the extent that the goodness-of-fit measures (SSE or R2) changed.

The null hypothesis of this F-test is that all group/time specific intercepts vi of the fixed effect model are zero. The alternative hypothesis is that at least one group/time specific intercept vi is not zero. In Stata the command xtreg estimates a fixed effect model with the fe option ("within" estimation), and by default conducts the F-test for fixed effects. If the null hypothesis is rejected (at least one group/time specific intercept vi is not zero), you may conclude that there is a significant fixed effect or significant increase in goodness-of-fit in the fixed effect model; therefore, the fixed effect model is better than the pooled OLS. In other words, the Pooled OLS is superior to the FE when the null hypothesis fails to reject (and contrary if rejected). Therefore, the hypothesis of this test in our study are set as:

H0 = Pooled OLS is superior to Fixed Effect

H1 = Fixed Effect is superior to Pooled OLS

The result of the F-test in the fixed effect model regression presented in table 6 is not significant (p-value > 0.05) and this indicate that the null hypothesis (all group/time specifics intercepts vi are zero) cannot be rejected.

H0: All group/time specifics intercepts vi of the fixed effect model are zero

F test that all unit=0:   F (28, 290) =   1.25   Prob > F = 0.1826

Table 6. F- test for Fixed Effects

Therefore, we may conclude that there is no significant fixed effect in the panel data, thus, the pooled OLS is more suitable than the fixed effect model. The result supports our previous finding that pooled OLS is the best model in our study.

In the pooled Ordinary Least Square (Pooled OLS) model, a panel data model approach is most simply because it combines only time-series and cross-sectional data. In this model, time and individual dimensions are not considered, so it is assumed that the behavior of corporate data is the same in various periods. This method can use the Ordinary Least Square (OLS) approach to estimate the panel data model.

1.8.7 OLS tests for functional misspecification

To verify that the pooled Ordinary Least Square (Pooled OLS) model is properly specified (including all relevant variables, and excluding irrelevant variables) and it adequately explains the relationship between the variables of our study, we run a linear regression model specification test called RESET (Regression Specification-Error Test) (Ramsey 1969) to check for non-linearity present in the model (functional form misspecification). For a linear regression, a functional form misspecification indicates that you are applying a linear model to non-linear relationship(s).

The Stata command ovtest, option rhs, performs the Ramsey RESET (Regression Specification-Error Test) for functional form misspecification. The null hypotheis is there that linearity present in the model. Therefore, the hypothesis of this test in our study are set as:

H0 =there is linearity present in the model and the Pooled OLS is properly specified

H1= there is non-linearity present in the model and the Pooled OLS is not properly specified

The result displayed below in table 7

RESET test, using powers of the independent variables

Ho: model has no omitted variables

$F(18, 299) = 0.74$

$Prob > F = 0.7729$

Table 7. Ramsey RESET test, for functional form misspecification

The Ramsey RESET test for functional form misspecification estimation is not significant (p-value > 0.05). Therefore, we cannot reject the null hypotheses H0 and consequently, we can conclude the pooled OLS model is sufficient to explain the relationship between the dependent and independent variables in our study

1.9 Empirical analysis

1.9.1 Regression analysis results

In the previous sections, the formal aforementioned tests to examine individual group and/or time effects in our panel data, concluded that conclude that there are not significant fixed or random effects in our panel data and that the pooled OLS model is best and is able to deal with heterogeneity better than the Fixed or Random Effect models. Also we concluded pooled Ordinary Least Square (Pooled OLS) model is properly specified and it adequately explains the relationship between the variables of our study.

Finally, we adjust for potential inference of heteroscedasticity in our model using the OLS robust standard errors method. The robust standard error is a technique to obtain unbiased standard errors of OLS coefficients under heteroscedasticity, and it is especially safe to use under large samples size

The table 8 shows the results of Ordinary Least-Squares Regression for the natural log transformation of the independent and control variables to produce straightforward regression coefficients. We split our sample into two subsamples: Latin American and Eurasian region; and we employ four different models for hypothesis testing: for the Latin American subsample, we use Model A, that includes only independent variables and Model B that includes both, independent and control variables. Similarly, for the Eurasian subsample, we use the Model C and Model D that includes respectively independent variables and both, independent and control variables. All four models are statistically significant

	Latin America		Eurasia	
	Model A	*Model B*	*Model C*	*Model D*
China GDP (Hypothesis 1)	-0.224 (0.161)	-0.293 (0.189)	-0.326 (0.199)*	0.151 (0.310)
Host country GDP per capita (Hypothesis 2)	0.398 (0.151)***	0.458 (0.145) ***	0.167 (0.168)	-0.092 (0.224)
Institutional distance (Hypothesis 3)	0.027 (0.237)	-0.009 (0.259)	-0.226 (0.185)	-0.110 (0.196)
Cultural distance (Hypothesis 4)	0.103 (0.168)	0.028 (0.173)	-0.277 (0.346)	0.278 (0.405)
	CONTROL VARIABLES			
HC natural resources		-0.051 (0.111)		0.261 (0.085)***
Political Risk		0.436 (0.429)		-0.171 (0.325)
Free Trade Agreement		0.567 (0.305)*		-0.149 (0.387)
Greenfield		-0.145 (0.214)		-0.400 (0.248)**
BRI		-0.198 (0.281)		-0.469 (0.204)
Constant	23.112 (4.556)***	25.227 (5.619)***	28.224 (5.807)***	15.342 8.649)***
No, of observations	192	192	135	135
R-squared	0.0463	0.0806	0.0864	0.1925

Dependent variable: Value of investment of firm i in country j in year t; Standard errors in parentheses

* p < 0,10; ** p < 0,05; *** p < 0,01

Table 8. Results of OLS regression

1.9.2 Hypothesis testing and results discussion

The conventional wisdom in the literature, postulates good macroeconomic environment of home and host country, positively influence outward and inward foreign direct investments respectively (e.g. Goh and Wong 2011, Kumari and Sharma 2017, Różański and Paweł 2016, Verma and Brennan 2013). Accordingly, in this study the Hypothesis 1 postulates that good Chinese economic development (measured by the GDP) would stimulate Chinese firms to invest abroad. However, and contrary to the extant literature, our findings partially marginally reject hypothesis 1, as they report only a slightly significant negative coefficient $\beta 1= -0.326$, $p < 0.1$ for the Model C, but a non-significant coefficient $p > 0.1$ for rest of the Models: A, B and D.

Similarly, the market seeking motive that postulate the Hypothesis 2: Good level of host country economic development would attract Chinese outward foreign direct investment into that country; is supported only for Chinese investments into Latin America (Models A and B) but not for Eurasian region (Models C and D). The analysis results report a positive and highly significant coefficient for the Model A ($\beta 2= 0.398$ $p < 0.01$) and Model B ($\beta 2= 0.458$ $p < 0.01$), but not significant results $p > 0.1$ for the Eurasian region (Models C and D).

These findings suggest a market seeking interest of Chinese investment into Latin America that is not replicated into the Eurasia region and this is consistent with previous research that unveil a transitional pattern of the Chinese outward foreign direct investment in Latin America from a resource-seeking interest to a market-focused one (Zhang 2018). Whereas the home economic growth of People's Republic of China might hinder Chinese investments in Eurasia, this is in line with previous studies that argues that economic growth in the home country and potential institutional constraints in the host countries may motivate firms to operate in their home countries (Luo and Wang 2012)

Contrary with the traditional view in the literature, the Hypothesis 3 postulates a positive relationship between China-host country institutional distance and the likelihood of Chinese investments in that country. Nevertheless, our findings did no support the hypothesis 3 as our regression analysis report small and non-significant ($p > 0.1$) coefficients for all four models (Models A, B, C, and D). Similarly, the Hypothesis 4, postulates that cultural distance between China and host country is negatively related with Chinese investments in that country, but our findings neither supports this hypothesis 4, as the analysis result reports a statistically non-significant coefficient ($p > 0.1$), for all our four models. Hence, we conclude that institutional and cultural environment in the host country does not deter Chinese investment into the Latin American and Eurasian regions.

One possible explanation for these findings is related with the high number of Chinese State Owned Enterprises (SOEs) in our sample (which accounts for 83,5% and 78,5% for the Latin American and Eurasian subsamples respectively) and the supporting role of the Chinese government as outward foreign direct investment facilitator, which helps to reduce the risk faced by its companies by strengthening economic and political ties with countries with weak institutional and diverse cultural environments (e.g. Child and Marinova 2014, Liu and Yang 2016, Pan and Jin 2015, Zhang, Jiang, and Zhou 2014). This is consistent with previous studies that contends that Chinese state-owned enterprises (SOEs) might are less affected by host country political and institutional environment than private ones when investing abroad (Duanmu 2012, 2014; Chen and Guo 2018, Qian 2019, Quer, Clave, and Rienda 2012). Additionally, SOEs might carry on non-market goals on the agenda (Buckley et al. 2007, Deng 2004, Globerman and Shapiro 2009).

Hypothesis testing	Latin America	Eurasia
H1: Chinese OFDI is positively associated with the level of China economic development measured by GDP.	Not Confirmed	Partially Rejected
H2: The level of host country economic development measured by GDP per capita, is positively related with the Chinese OFDI in that country	Confirmed	Not Confirmed
H3: Institutional distance between China and host country is positively related with the Chinese OFDI in that country	Not Confirmed	Not Confirmed
H4: Cultural distance between China and host country is negatively related with the Chinese OFDI in that country.	Not Confirmed	Not Confirmed

Table 9 Model of Chinese tech – OFDI's hypotheses testing results

In relation in how the control variables of the study relates which China's outward foreign direct investment towards both regions, the results in Table 7 shows that host country natural resources is positive and highly statistically significant ($\beta5= 0.261$, $p < 0.01$) for Model D (Eurasian region) but non-statistically significant for Model B (Latin American region). This results indicate a natural resource seeking motive for the related Chinese tech investments in the Eurasia region, which is in line with previous studies that suggest a resource-seeking interest of the Chinese outward foreign direct investment in Eurasia (e.g. Dadwal and Purushothaman 2017, Liu et al, 2017, Vakulchuk et al, 2019, Zhang, Jiang, and Zhou 2014).

With regards host country political risk, our analysis reports a positive coefficient for Model B (Latin American region) and a negative coefficient for Model D (Eurasian region), but statistically non-significant ($p>0.1$) for both models. These findings points that host country political risk does not influence Chinese outward foreign direct investment into both regions, and this conforms with earlier studies that contends that risky political environments do not deter Chinese foreign investments (e.g. Chen and Guo, 2018, Qian, 2019; Quer, Clave, and Rienda 2012)

The result of our analysis also indicates a positive effect of the China - host country's trade agreement linkages on the Chinese tech investments into Latin America (Model B) but the same is not replicated in the Eurasia region (Model D). This is accounted in our analysis by the control variable Free Trade Agreements, which report a positive and marginally significant coefficient ($\beta 7 = 0.567$ $p < 0.1$) for Model B but non-significant for Model D. One possible explanation for this finding could be found in the number of countries that has signed Free Trade Agreement with China is three times higher in the Latin American region than in Eurasia one and this conforms with previous studies that indicate that the establishment of preferential trade agreements stimulate foreign direct investment (Buthe and Milner 2008, 2014).

Conversely, our findings indicate that the political-economic linkages of the Belt and Road Initiative (BRI) seems not influence the Chinese tech investment in both regions as our analysis reports non-significant coefficients both Models B and D.

Finally, our analysis reports for the control variable "Greenfield" investment a negative significant coefficient for the Model D (Eurasian region), $\beta 8 = -0.400$ $p <0.05$, but a non-significant one for the Model B (Latin America). This suggest a more preferred choice of Chinese Multinationals for acquisitions as investment entry mode in Eurasia than in Latin America, which is in line with previous studies that suggest that greenfield investment in the belt-road countries was growing at a slower pace than acquisitions, claiming that acquisitions as entry mode allow capturing the investment opportunities more quickly (Du and Zhang, 2018).

Firms with higher technology levels prefer greenfield to acquisition to protect their specific advantages (e.g. Barkema, Vermeulen 1998; Brouthers, Brouthers 2000). Acquisition is preferred for companies with lower technology levels (Hennart and Park 1993; Kogut and Singh, 1988). Hence, the results may indicate a lower technology intensity level of the Chinese Multinationals ' investments in the Eurasian region than in Latin America.

This findings is in consonance with previous studies that suggest that Emerging markets multinationals investing in other emerging economies, possess a "deep understanding" of customer needs and employ technologies functionally appropriate to the local market at a reasonable premium (Adarkwah and Malonæs 2020, Luo and Tung 2018). Our finding are also in line the Learning Portal Model proposed by Hartenstein and Alon 2021, that suggest that Chinese firms

use the know-how assimilated from their acquired strategic asset in developed economies to improve position at home and expand in other emerging economies, before eventually expanding into mature markets

1.10 Conclusion of the empirical analysis.

The Latin American and Eurasian regions are relevant destinations for Chinese outward foreign direct investment despite of cultural, institutional differences and political uncertainties. In this study and drawn from push - pull perspective, we investigate the extent to which home macroeconomic and institutional factors (push factors) and host country macroeconomic and institutional factors (pull factors) influence location decision choice of Chinese technology investment into these regions. Using empirical models of the most recent datasets, this work analyses how home and host country economic and institutional settings, along host country locational advantages, influence Chinese technology investors' location choice into the both regions.

The finding of this dissertation reveals that the host country's macroeconomic development measured by GDP per capita and home-host country trade agreements, positively influence Chinese technology investments into Latin America indicating a market-seeking interest. Whereas the host country's natural resources, weighted as the percentage of natural resources rents of total GDP, strongly motivates these investments into the Eurasian region, revealing a resource-seeking interest. Conversely, institutional and cultural environment accounted in this study, as China-host country institutional and cultural distance and host country political environment, measured by political risk, seems not influence Chinese investments into both regions.

What is more, our study signposts a preference for acquisitions as entry mode, suggesting a lower technology intensity level of the Chinese multinationals' tech-investments in the Eurasian region that in Latin America. This connote that when emerging markets multinationals invest in other emerging economies, employ technologies that are locally appropriate to the market. at a reasonable premium. This combined with relevant home-country government support, allows emerging markets multinationals to be flexible, which may serve as a key differentiator when competing with developed-markets multinationals (Adarkwah and Malonæs 2020)

Emerging markets multinationals are quite cost efficient compared to developed-markets multinationals, possess an enhanced understanding of emerging markets' customer need that allows them to develop products that are locally appropriate and accessible to the market. Their ability to restructure processes efficiently and their ambidextrous capabilities also give them advantages compared to developed-markets multinationals in those markets (Luo and Rui, 2009; Madhok and Keyhani, 2012; Luo and Tung, 2018).

Finally, our findings suggest that Chinese outward foreign direct investment toward Latin American and Eurasian regions is strongly driven by state-owned enterprises (SOEs) and thanks to the support provided by the Chinese government, might are less affected by host country political and institutional environment. This supporting role of the Chinese government, may well explain the idiosyncratic behavior of Chinese multinationals' investments location choice in the Latin American and Eurasian regions

CONCLUSION

1.11 Theoretical contributions of the study

From the conventional theoretical perspectives such as Uppsala model and Eclectic Paradigm Chinese and other emerging market multinationals internationalize to the "incorrect" countries by expanding to distant markets (physically or economically) before entering closer and more similar ones. Furthermore they do so at the "incorrect" speed with the "incorrect" entry modes, by carrying out risky and high commitment investments before the staring their internationalization with other options such as exporting, licensing or using sales subsidiaries

Based on a consensus in the literature that such perspectives based on single-level analyses does fully account with the multilevel conditions defining the internationalization of Chinese firms. This dissertation takes a theory integration approach rather than theory testing approach and adopt multilevel research framework that integrates country-level, industry-level and firm-level factors. In the opinion of the author, this dissertation makes several contributions that can be summarized as follows:

- Based on the literature analysis, the main theoretical approaches of studying firm internationalities of multinationals from emerging markets (EMNEs) are highlighted. Foreign Direct investment from EMMNs is studied within the firm internationalization theory, which is mainly based on the Uppsala Model, Eclectic Paradigm, Institutional theory and the Resource-Based View theories. However, such approaches are based on single-level analyses and they have limitation when taken into consideration of the multilevel conditions defining the internationalization of Chinese firm. Therefore, to understand the internationalization pattern of Chinese firms (the how and why), it is necessary to adopt a multilevel research framework that integrates research on home and host-country environmental contexts, industry perspective, and the firm-level perspective in relation with the institutional capital and resources accessible by Chinese firms.

- The methodical analysis of empirical studies of multinationals from emerging economies, particularly Chinese firms, carrying out outward foreign direct investments, made it possible to identify discrepancies in research results and understudied topics. Thus, different influences of formal and informal institutions whit regards to the influence of the EMNEs FDI location choice were identified, as well as the not conclusive conclusions about the motivations of EMNEs to undertake invests abroad. In addition, topics such as the impact of the economic and institutional environment of home country on the international ENMEs strategies, the role of the state in the influence of choice of strategies of companies with state ownership, and the supporting role of the home government as outward foreign direct investment (OFDI) facilitator by stablishing bilateral political relations as well or bilateral treaties between home and host countries where understudied. Among the instructional environment factors most often analyzed by scholars, the institutional distance and political stability show the contradictory results in empirical studies.

- Based on the results of the theoretical study, it was concluded that there is currently no clear understanding what motivates the location choice of emerging markets multinationals (EMNEs). They are usually categorized with the same logic as multinationals (MNEs) from developed economies, such as the search for stable institutional environments, efficient markets, strategic resources, and minor psychic distance. However, there is a theoretical gap concerning the driving forces underpinning the location choice of EMNEs' outward foreign direct investment, which may differ from MNEs in advanced economies.

- Based on the literature analysis, the competitive advantages of Chinese multinational are identified based on the Dunning'Eclectig Paradigm and Resource Based View framework. So, the advantages of the firm include ownership advantages such as access and availability of capital and technical know-how that push companies to internationalize as well as firm resources and capabilities such organizational flexibility, operational knowledge in adverse institutional context, understanding of customer needs in emerging markets and cost efficiency that give emerging markets firms (EMNEs) advantages compared to developed countries multinationals (DMNEs). The institutional advantage of Chinese multinationals are related with the firm's institutional capital (ownership and industry nature) and the high level of government support that allow Chinese MNEs to be flexible, and undertake larger value foreign investments even in less stable politically countries.

- Contrary to the argument of literature on EMNEs internationalization that contend that technology-driven outward foreign direct investment from emerging markets multinationals (EMNEs) is mainly directed to developed countries to obtain critical resources by aggressively acquiring strategic assets. Technology-driven foreign investments from emerging markets multinationals (EMNEs) do not always seek developed economies and technology foreign investments from EMNEs into emerging economies are risen, indicating that there are factors in these economies that can prove attractive, such rare local resources and market efficiency.

- Based on the empirical analysis, this dissertation provides new insights on the under-researched topic, namely: investments location choice of emerging-market multinationals into other emerging markets. Hence this dissertation contribute to a better understanding of the location decision choice of multinationals from emerging markets carrying out investment into other emerging economies, which has received scant attention in the literature.

- This dissertation contributes to the academic debate on the validity of conventional theories—derived from the behavior of developed-country MNEs in the past—to explain international decisions made by emerging market MNEs. Hence, this study extend institutional theory by analyzing if emerging markets multinationals challenge some of the assumptions established from the multinationals from developed economies. Although there is empirical research on emerging markets multinationals, in particular on Chinese ones, empirical papers that analyze at the industry level the international behavior of Chinese multinationals are still limited. Hence, our study contributes to the debate on the applicability of the existing theoretical framework in the case of emerging markets multinationals, by showing at the industry level an unconventional behavior of emerging markets multinationals' foreign investments locations choice, mainly as consequence of the idiosyncratic characteristics of their home country institutional environments.

- Finally, this dissertation aims to advance the research on International Business (IB) by taking a multilevel approach and integrating the Eclectic, the Resource View, and the Institutional perspectives in the study of OFDI location choice from emerging markets into other emerging economies and contributes to the literature on Chinese multinationals from a comparative point of view. Although there is extensive empirical research on Chinese multinationals, empirical studies that comparatively

analyze at industry level the international behavior of Chinese multinationals at into different emerging regions are still scant.

1.12 Practical contributions of the study

The practical contribution of the dissertation research is as follow:

- Managers, especially for incumbent firms, need to understand if emerging-market firms behave in a conventional or different way when they enter in a new market. At a policy level, since some of the emerging-market firms' outward foreign direct investment entails managerial and planning deficits, host countries when developing policies to attract foreign direct investment, need to implement measures to address the negative effects of emerging markets multinationals investments that may they entail (e.g. investments for natural resource-seeking purposes.)

- Chinese companies and particularly Chinese SOEs that may suffer from the liability of foreignness on foreign markets. At the same time, the choice of countries belonging to a political alliance will not bring the desired results in terms of obtaining strategic assets. Thus, in order to improve their competitive advantages, companies should carefully approach the selection of a foreign market, taking into account the above characteristics and the potential liability of foreignness effect. It should be noted that the liability of foreignness will be less for private companies not affiliated with the Chinese government. Such companies have more opportunities to make M&A in order to acquire technologies, managerial practices and knowledge.

- Emerging Market firms and Chinese firms in particular, because of their reliance on the Chinese government in terms of broad political risks, may also minimize their social nonmarket strategies and put less emphasis on CSR activities including contributions to local communities and environments. A possible consequence is again that Chinese firms' investments in CSR activities may be sub-optimal and may reduce their legitimacy, notably with respect to local communities, NGOs, and employees. Therefore, and especially when investing in countries where governments are not considered reliable or trustworthy by non-governmental actors, having a good relationship with host governments may even negatively affect foreign firms' image among non-governmental stakeholders and require additional investments in CSR. Thus, emerging markets firms must develop firm-specific advantages, including those in CSR, rather than relying on country-specific advantages in strengthening diplomatic ties.

- Similarly, It is arguably the case that Chinese firms, with the assistance of the Chinese government, are better able to conform to the relatively clear requirements for a political license to operate in host countries than the more ambiguous requirements associated with defining stakeholders and meeting social expectations in culturally diverse circumstances. Therefore, Chinese firms besides nurturing their political capital, they should not neglect investing in CSR capabilities and develop channels by which firms can interact with local stakeholders to achieve social legitimacy in host countries

- Chinese state-owned companies have a reputation for "carrying political dynamics" besides the market ones and often considered as bureaucratic structures. Nevertheless, Chinese companies (both private and public) have certain competitive advantages, namely, they are able to work in conditions of environmental dynamism, uncertainty, crisis and external pressure. Such conditions develop creativity, nonstandard approaches to solving complex problems and the ability to work in a tight time at the maximum of opportunities. This should also be taken into account when planning the time to enter foreign markets; possibly unfavourable periods (for example, financial, migration crisis) represent a good chance for Chinese companies to show their competitive advantages.

1.13 Study limitations and further research

There are several limitations to our study that provide opportunities for future research. Firstly, we have only used secondary data, therefore we have not been able to account and analyze the insights of managers of Chinese companies. Hence, we suggest that future research could use surveys to capture managerial insights on the determinants that influence the location choice in Latin American and Eurasian regions, as well as what factors contribute to mitigate the perceived risks. Secondly, our study is focused in two regions: Latin America and Eurasia as the location choice of Chinese technology outward foreign direct investment. Therefore, our findings are only valid for the peculiarity of the relationship of China with the countries of the aforementioned regions. Hence, further research is needed in order to determine whether the behavioral patterns of Chinese multinationals in our study are similar in other locations. Finally, the role played bilateral political relations as well as the existence of bilateral investment treaties or trade agreements between China and host countries deserves additional analysis.

LIST OF ABBREVIATION AND SYMBOLS

MNE – Multinational Company

EMNEs Emerging Market Multinational

DMNEs Developed Market Multinational

FDI Foreign Direct Investment

ODFI Outward Foreign Direct Investment

M&A – Mergers and Acquisitions

P (p-value) – significance level

OLI – Dunning's eclectic paradigm that stands for Ownership, Location,Internalization

RBV - Resource Based View theory

Pooled OLS - Pooled Ordinary Least Square,

FE - Fixed Effect model,

RE- Random Effect model.

VIF – the variance inflation factor

REFERENCES.

1. Adarkwah, G.K., and T.P. Malonæs. 2020. "Firm-specific advantages: a comprehensive review with a focus on emerging markets".*Asia Pacific Journal of Management*. https://doi.org/10.1007/s10490-020-09737-7

2. Aharoni, Y. 2014 . To understand Emerging markets multinationals a dynamic IB contingency theory is called for . *International Journal of Emerging Markets* , 9 (3), 77 – 385.

3. Aharoni, Y. 1966. The Foreign Investment Decision Process. Boston: Harvard University, Graduate School of Business Administration, Division of Research.

4. Alon, I., Anderson, J., Munim, Z.H. and Ho, A. 2018. "A review of the internationalization of Chinese enterprises", *Asia Pacific Journal of Management*, Vol. 35 No. 3, pp. 573-605.

5. Alon, I., J. Child, S. Li, and J. R. McIntyre. 2011. "Globalization of Chinese Firms Theoretical Universalism or Particularism." *Management and Organization Review* 7 (2):191–200. doi:10.1111/j.1740-8784.2011.00234.

6. Amal, M., Raboch, H.and Tomio, B. T. 2009. "Strategies and determinants of foreign direct investment (FOREIGN DIRECT INVESTMENT) from developing countries: Case study of Latin America". *Latin American Business Review*, 10(2–3), 73–94.

7. Amann, E., and S. Virmani, 2015. "Is the evolution of India's Outward FOREIGN DIRECT INVESTMENT consistent with Dunning's Investment Development Path sequence?" *Economics Working Paper Series* 019. Lancaster.

8. Amin, A., Anwar, S., and X. H. Liu. 2020. "Outward foreign direct investment and economic growth in Romania: Evidence from non-linear ARDL approach". *International Journal of Finance & Economics*, *27*(1), 665-677. DOI: 10.1002/ijfe.2173

9. Amit R.,and Schoemaker P., 1993 'Strategic assets and organizational rent', *Strategic Management Journal*, 14, 33-46

10. Anderson, J., D. Sutherland and S. Severe. 2015. "An event study of home and host country patent generation in Chinese Multinationals undertaking strategic asset acquisitions in developed markets," *International Business Review*, Vol. 24, No. 5, pp. 758–71.

11. Andersson, T and Svensson, R. 1994. "Entry Modes for Direct Investment Determined by the Composition of Firm-Specific Skills." *Scandinavian Journal of Economics*, Vol. 96(4), pp. 551-60, 1994.

12. Apaydin, M. 2009. "Analyzing FOREIGN DIRECT INVESTMENT trends in emerging markets: Turkey vs CSEE and the Middle East", *International Journal of Emerging Markets*, Vol. 4 No. 1, pp. 72-97.

13. Barkema, H, and F. Vermeulen, 1998: "International Expansion through Start-Up or Acquisition: A Learning Perspective". *Academy of Management Journal,* 41, 7–26, https://doi.org/10.5465/256894

14. Barney, J. 1991. "Firm Resources and Sustained Competitive Advantage." Journal of Management 17 (1):99–120. doi:10.1177/014920639101700108.

15. Barney, J., Wright, M. and Ketchen, D. 2001. The Resource-Based View of the Firm: Ten Years after 1991. *Journal of Management*, 27(6), 625-641.

16. Bhardwaj, A., J. Dietz, and P. W. Beamish. 2007. "Host Country Cultural Influences on Foreign Direct Investment". *Management International Review* 47 (1): 29–50.

17. Bhaumik, S.K., Driffield, N. and Pal, S. 2010, "Does ownership structure of emerging-market firms affect their outward foreign direct investment? The case of the Indian automotive and pharmaceutical sectors", *Journal of International Business Studies*, Vol. 41 No. 3, pp. 437-450

18. Bhaumik, S.K., Driffield, N. and Zhou, Y. 2016 "Country specific advantage, firm specific advantage and multinationality – sources of competitive advantage in emerging markets: evidence from the electronics industry in China", *International Business Review*, Vol. 25 No. 1, pp. 165-176.

19. Bilgili, T. V., Kedia, B. L., and Bilgili, H. 2016. Exploring the influence of resource environments on absorptive capacity development: The case of emerging market firms. Journal of World Business, 51(5): 700-712

20. Blomkvist, K., and R. Drogendijk. 2013. "The Impact of Psychic Distance on Chinese Outward Foreign Direct Investments". *Management International Review* 53 (5): 659–686.

21. Boisot, M., and Meyer M. 2008. "Which way through the open door? Reflections on the internationalization of Chinese firms". *Management and Organization Review*, 4:3, 349-369

22. Breusch, T. S., and Pagan, A. R. 1980. "The Lagrange Multiplier Test and its Applications to Model Specification in Econometrics." *Review of Economic Studies*, 47(1):239-253

23. Brouthers, K., and L. Brouthers. 2000. "Acquisition or Greenfield start-up? Institutional, cultural and transaction cost influences". *Strategic Management Journal, 21*, 89-97.

24. Buckley, P. 2018. Internalisation Theory and Outward Direct Investment by Emerging Market Multinationals. *Management International Review*, 58(2), 195-224.

25. Buckley, P. J. 2009. "The impact of the global factory on economic development". *Journal of World Business*, 44(2), 131–143.

26. Buckley, P. J., and M. Casson. 1976. The Future of the Multinational Enterprise. London, England: Macmillan

27. Buckley, P., Clegg L., Voss H., Cross A., Liu X. and Zheng P. 2018. A Retrospective and Agenda for Future Research on Chinese Outward Foreign Direct Investment. *Journal of International Business Studies*, 49(1), 4-23.

28. Buckley, P., Clegg, L., Cross, A., Liu, X., Voss, H. and Zheng, P. 2007. "The Determinants of Chinese Outward Foreign Direct Investment". *Journal of International Business Studies*, 38(4), 499-518

29. Buckley, P., S. Munjal, P. Enderwick, and N. Forsans. 2016a. "Cross-Border Acquisitions by Indian Multinationals: Asset Exploitation or Asset Augmentation?". *International Business Review* 25 (4): 986–996

30. Buckley, P.J., Yu, P., Liu, Q., Munjal, S. and Tao, P. 2016b. "The institutional influence on the location strategies of multinational enterprises from emerging economies: evidence from

China's cross border mergers and acquisitions". *Management and Organization Review*, Vol. 12 No. 3,pp. 425-448.

31. Buckley, Peter 2019 "China goes global: provenance, projection, performance and policy", *International Journal of Emerging Markets*, Vol. 14 Issue: 1, pp.6-23, https://doi.org/10.1108/IJoEM-01-2017-0006

32. Buthe T, Milner HV. 2014. "Foreign direct investment and institutional diversity in trade agreements: credibility, commitment, and economic flows in the developing world", 1971–2007. *World Politics*. 66(01):88– 122 Chase K. 20

33. Buthe, T., and H.V. Milner. 2008. "The politics of foreign direct investment into developing countries: increasing foreign direct investment through international trade agreements?." *American Journal of Political Science*. 52(4):741–62

34. Callen, T. 2008. "Back to Basics. What Is Gross Domestic Product?" *Finance & Development*. http://www.imf.org/external/pubs/ft/fandd/2008/12/pdf/basics.pdf.

35. Cantwell, J., Dunning, J. and Lundan, S. 2010. An Evolutionary Approach to Understanding International Business Activity: The Co-evolution of Multinationals and the Institutional Environment. *Journal of International Business Studies*, 41(4), 567-586.

36. Chen, J., S. Saarenketo, and K. Puumalainen. 2018. Home country institutions, social value orientation, and the internationalization of ventures. *International Business Review*, 27(2), 443–454.

37. Chen, W. H., and Liu, Y. Y. 2021. Configurations of home-country experience, leapfrog strategy, and management team composition for acceleration of international expansion: Evidence from Asian multinational enterprises. *Asia Pacific Journal of Management*, 38(2), 709–733. https://doi.org/10.1007/s10490-019-09679-9

38. Chen, W., D. Dollar, and H. Tang. 2016. "Why is China investing in Africa? Evidence from the firm level",*The World Bank Economic Review,* pp. lhw049-lhw049

39. Chen, Y. and W.B. Guo. 2018. "Institutional Risks and Success or Failure of Transnational Mergers and Acquisitions: The Adjustment of "Soft Power" in Diplomatic and Economic Powers of Great Powers". *World Economic Research*, No. 5, 51-60.

40. Child, J. and Rodrigues, S. 2005. "The Internationalization of Chinese Firms: A Case for Theoretical Extension." *Management and Organization Review*, 1(3):381-410.

41. Child, J., and S. Marinova. 2014. "The role of contextual combinations in the globalization of Chinese firms". *Management and Organization Review*, 10, 347–371

42. Ciszewska-Mlinarič, M., and P. Trąpczyński. 2019. "Foreign market adaptation and performance: the role of institutional distance and organizational capabilities". *Sustainability* 11:1793. https://doi.org/10.3390/su11061793

43. Collinson , S. , & Rugman , A. 2008. The regional nature of Japanese multinational business . *Journal of International Business Studies* , 39 , 215 – 230

44. Cuervo-Cazurra, A. 2012. "Extending Theory by Analyzing Developing Country Multinational Companies: Solving the Goldilocks debate". *Global Strategy Journal* 2 (3): 153–167

45. Cuervo-Cazurra, A., and M. Genc. 2008. "Transforming disadvantages into advantages: developing country Multinationals in the least developed countries". *Journal of International Business Studies,* Vol. 39 No. 6, pp. 957-979.

46. Cui, L., and F. Jiang. 2010. "Behind ownership decision of Chinese outward foreign direct investment: resources and institutions", *Asia Pacific Journal of Management*, Vol. 27 No. 4, pp. 751-774

47. Cyert, R.M. and March, J.G. 1963. A Behavioral Theory of the Firm. Englewood Cliffs: Prentice-Hall.

48. Dadwal, S.R., and C. Purushothaman. 2017. "CPEC in Pakistan's quest for energy security", *Strategic Analysis*, Vol. 41 No. 5, pp. 515-524.

49. Deng, P. 2012. The Internationalization of Chinese firms: A Critical Review and Future Research. *International Journal of Management Reviews*, 14(4), 408-427.

50. Deng, P. 2013. Chinese Outward Direct Investment Research: Theoretical Integration and Recommendations. *Management and Organization Review*, 9(3), 513-539.

51. Deng, P. 2004. "Outward Investment by Chinese MNCs: Motivations and Implications." *Business Horizons* 47 (3): 8–16. doi:10.1016/S0007-6813(04)00023-0

52. Deng, P., and S. Zhang 2018. "Institutional quality and internationalization of emerging-market frms: Focusing on Chinese SMEs". *Journal of Business Research*, 92(C), 279–289.

53. Deng, P., Yang, X., Wang, L. & Doyle, B. 2017. Chinese Investment in Advanced Economies: Opportunities and Challenges. *Thunderbird International Business Review*, 59(4), 461-471.

54. Dhahri, S., and A. Omri. 2020. "Does foreign capital really matter for the host country agricultural production? Evidence from developing countries". *Review of World Economics*, 156(1), 153–181. https://doi.org/10.1007/s10290-019-00361-2

55. Du, J. and Zhang Y. 2018, "Does one belt one road initiative promote Chinese overseas direct investment?". *China Economic Review*, Vol. 47, pp. 189-205

56. Duanmu, J. 2014. "State-Owned MNCs and Host Country Expropriation risk: The Role of Home State Soft Power and Economic Gunboat Diplomacy". J*ournal of International Business Studies*, 45(8), 1044-1060.

57. Duanmu, J. L. 2012. "Firm Heterogeneity and Location Choice of Chinese Multinational Enterprises (Multinationals)". *Journal of World Business* 47 (1): 64–72.

58. Duanmu, J., and Y. Guney 2009. "A Panel Data Analysis of Locational Determinants of Chinese and Indian Outward Foreign Direct Investment". *Journal of Asia Business Studies,* 3(2), 1-15.

59. Dunlap, D., E. F. McDonough, R. Mudambi and T. Swift. 2016, "Making up is hard to do: Knowledge acquisition strategies and the nature of new product innovation*," Journal of Product Innovation Management*, Vol. 33, No. 4, pp. 472–91.

60. Dunning, J. 1979 Explaining Changing Pattern of International Production: In Defense of Eclectic theory. *Oxford Bulletin of Economics and Statistics*, 41, 269–296.

61. Dunning, J. 1988. "The Eclectic Paradigm of International Production: A Restatement and Some Possible Extensions". *Journal of International Business Studies*, 19(1), 1-31

62. Dunning, J. H. 1977. *Trade, location of economic activity and MNE: A search for an eclectic approach.* In B. Ohlin, P. O. Hesselborn, & P. J. Wijkmann (Eds.), The international allocation of economic activity (pp. 398–418). London: McMillan.

63. Dunning, J. H. 1980. "Towards an eclectic theory of international production: Some empirical tests". *Journal of International Business Studies,* 11(1), 9–31.

64. Dunning, J. H. 2001. "The Eclectic (OLI) Paradigm of International Production: Past, Present and Future." International" *Journal of the Economics of Business* 8 (2):173–90. doi:10.1080/13571510110051441.

65. Durán, J.J and Úbeda, F. 2005 "The investment development path of newly developed countries, International". *Journal of the Economics of Business*, 12:1, 123-137, DOI:10.1080/1357151042000323076.

66. Eden, L. and S. Miller 2004. Distance Matters: Liability of Foreignness, Institutional Distance and Ownership Strategy. *Advances in International Management*, 16, 187–221.

67. Enderwick, Peter and Buckley, Peter J., 2021. "The role of springboarding in economic catch-up: A theoretical perspective," *Journal of International Management*, Elsevier, vol. 27(3).

68. Ernst and Young 2019. How will Chinese enterprises navigate new challenges when "going abroad" under the new global trade landscape, October 2019. Retrieved from https://assets.ey.com/content/dam/ey-sites/ey-com/en_cn/topics/china-opportunities/ey-china-overseas-investment-report-issue-9-en-20200320.pdf?download

69. Ernst and Young 2022. Overview of China outbound investment of 2021, February 2022. Retrieved from https://assets.ey.com/content/dam/ey-sites/ey-com/en_cn/topics/coin/ey-overview-of-china-outbound-investment-2021-bilingual.pdf

70. Fuchs, D. 2005. "Commanding Heights? The Strength and Fragility of Business Power in Global Politics." *Journal of International Studies*, 33(3), 771-801.

71. Fuchs, D. 2007. *Business Power in Global Governance.* Lynn Rienner Publishers, Boulder, CO.

72. Fuchs, D. 2013. *Theorizing the Power of Global Companies.* In Mikler, J. (Ed.), Handbook of Global Companies. Hoboken: Wiley-Blackwell, 75-139, 239-333

73. Gaffney, N., Kedia, B. and Clampit, J. 2013, "A resource dependence perspective of EMNE foreign direct investment strategy", *International Business Review*, Vol. 22 No. 6, pp. 1092-1100

74. Gallagher, K. and Irwin, A. 2014. "Exporting National Champions: China's Outward Foreign Direct Investment Finance in Comparative Perspective." *China & World Economy*, 22(6), 1-21.

75. Gani, A. 2007. "Governance and Foreign Direct Investment Links: Evidence from Panel Data Estimations." *Applied Economics Letters*, 14, 753-756. https://doi.org/10.1080/13504850600592598

76. Gao, L., Liu, X. and Lioliou, E. 2015, "A double-edged sword: the impact of institutions and political relations on the international market expansion of Chinese state-owned enterprises", *Journal of Chinese Economic and Business Studies*, Vol. 13 No. 2, pp. 105-125

77. Ge, G. L., & Wang, H. Q. 2013. The impact of network relationships on internationalization process: An empirical study of Chinese private enterprises. Asia Pacific Journal of Management, 30(4): 1169-1189.

78. Ghamawat, P. 2001. "Distance still matters: The hard reality of global expansion". *Harvard Business Review*, 79(8), 137–147

79. Globerman, S. and D. Shapiro. 2009. "Economic and Strategic Considerations Surrounding Chinese FOREIGN DIRECT INVESTMENT in the United States". *Asia Pacific Journal of Management*, 26, 163-183. https://doi.org/10.1007/s10490-008-9112-5

80. Globerman, S., and Shapiro, D. M. 2003. "Governance infrastructure and US foreign direct investment". *Journal of International Business Studies*, 34(1), 19–39

81. Goh, S. K., and K. N. Wong. 2011. "Malaysia's outward foreign direct investment: The effects of market size and Government Policy". *Journal of Policy Modelling*, 33(3), 497–510

82. Grant, R., (1996), 'Prospering in dynamically-competitive environments: Organizational capability as knowledge creation', *Organization Science*, 7, 375-387

83. Greene, William H. 2012. *Econometric Analysis* (Sixth ed.). Upper Saddle River: Pearson. ISBN 978-0-13-513740-6.

84. Greeven, M. J., G. S Yip, and W. Wei. 2019. *Pioneers, hidden champions, changemakers, and under-ndogs: Lessons from China's innovators* (pp. 1–7). Cambridge: MIT Press.

85. Gubbi, S.R., Aulakh, P.S., Ray, S., Sarkar, M.B. and Chittoor, R. 2010, "Do international acquisitions by emerging-economy firms create shareholder value? The case of Indian firms", *Journal of International Business Studies*, Vol. 41 No. 3, pp. 397-418.

86. Guillén , M. F. and García-Canal , E. 2009. The American model of the multinational firm and the "new" multinationals from emerging economies. *Academy of Management Perspective* , 23 (2), 23 – 35

87. Guillen, M.F. and Garcia-Canal, E. 2009 "The American model of the multinational firm and the 'new' multinationals from emerging economies", *Academy of Management Perspectives*, Vol. 23 No. 2, pp. 23-35.

88. Guillen, M.F. and Garcia-Canal, E. (2013), Emerging Markets Rule: Growth Strategies of the New Global Giants, McGraw-Hill, New York, NY.

89. Habib, M. and Zurawicki, L. 2002, "Corruption and Foreign Direct Investment". *Journal of International Business Studies* **33,** 291–307 (2002). https://doi.org/10.1057/palgrave.jibs.8491017

90. Haftel Y.Z. 2010. "Ratification counts: US investment treaties and foreign direct investment flows into developing countries". *Review of International Political Economy* 17(2):348–77

91. Haiyue, L., and A. Manzoor. 2020. "The impact of outward foreign direct investment on the performance of Chinese firms along the 'Belt and Road'". *Applied Economics*, 52(11), 1219–1221. https://doi.org/10.1080/00036846.2019.1659501

92. Hamel G., Prahalad C.K., 1994. 'Competing for the future', Harvard Business School Press, Boston, MA

93. Han, J., Chu, X.Y. and Li, K. 2014. "China's ODI motivations, political risk, institutional distance and location choice", *Theoretical Economics Letters*, Vol. 4 No. 7, pp. 540-547.

94. Harms, Philipp and Heinrich Ursprung. 2002. "Do Civil and Political Repression Really Boost Foreign Direct Investments?" *Economic Inquiry*, 40, issue 4, p. 651-663, https://EconPapers.repec.org/RePEc:oup:ecinqu:v:40:y:2002:i:4:p:651-663.

95. Hashai, N. & Buckley, P. (2014). Is Competitive Advantage a Necessary Condition for the Emergence of the Multinational Enterprise? *Global Strategy Journal*, 4(1), 35-48.

96. Hausman, J. A. 1978. "Specification Tests in Econometrics". *Econometrica*, 46(6):1251-1271.

97. He, C. F., X. Z. Xie, and S. J. Zhu. 2015. "Going Global: Understanding China's Outward Foreign Direct Investment from Motivational and Institutional Perspectives." Post-Communist Economies 27 (4): 448–471. doi:10.1080/14631377. 2015.1084716

98. He, C., Xie, X. and Zhu, S. 2015. Going Global: Understanding China's Outward Foreign Direct Investment from Motivational and Institutional Perspectives. *Post-Communist Economies*, 27(4), 448-47

99. Hennart, J., and Y. Park. 1993. "Greenfield vs. Acquisition: The Strategy of Japanese Investors in the United States". *Management Science, 39*, 1054-1070.

100. Hennart, J.-F. (2012), "Emerging market multinationals and the theory of the multinational enterprise", *Global Strategy Journal*, Vol. 2 No. 3, pp. 168-187

101. Hennart, J.-F. 1982. A Theory of Multinational Enterprise. Cambridge, MA: The University of Michigan Press.

102. Hertenstein P, Alon I. 2021 A learning portal model of emerging markets multinationals. *Global Strategy Journal*;1–29. https://doi.org/10.1002/gsj.1400

103. Hillemann, J., and R. Ramamurti. 2018. "What is 'Chinese' about Chinese Multinationals?" *Journal of International Business Studies*, 49(1), 34-48.

104. Hoang, H.H. and M. Goujon. 2018, "Determinants of foreign direct investment in Vietnamese provinces: a spatial econometric analysis", *Post-Communist Economies*, Vol. 26 No. 1, pp. 103-121.

105. Hofstede, Geert, Gert Jan Hofstede, and Michael Minkov. 2010. *Cultures and Organizations. Software of the Mind. Intercultural Cooperation and its Importance for Survival.* 3rd edition. New York: McGraw-Hill

106. Holburn, G. L.F., and B. A. Zelner. 2010. "Political capabilities, policy risk, and international investment strategy: Evidence from the global electric power generation industry." *Strategic Management Journal* 31 (12): 1290–1315.

107.   Hong, Jin, Chongyang Zhou , Yanrui Wu , Ruicheng Wang and Dora Marinova. 2019. "Technology Gap, Reverse Technology Spillover and Domestic Innovation Performance in Outward Foreign Direct Investment: Evidence from China," *China & World Economy*. 27. 1-23. 10.1111/cwe.12272.

108.   Hoskisson, R., Eden, L., Lau, C. and Wright, M. 2000. Strategy in Emerging Economies. *Academy of Management Journal*, 43(3), 249-267.

109.   Huang, S., Ye, G., Zhou, J. and Jin, T. 2017. Institutional Contexts, Institutional Capability and Accelerated Internationalization of Entrepreneurial Firms from Emerging Economies. *Nankai Business Review International*, 8(2), 231-262.

110.   Huang, Y. X. and Y. Zhang, 2017, "How does outward foreign direct investment enhance firm productivity? A heterogeneous empirical analysis from Chinese manufacturing," *China Economic Review*, Vol. 44, No. 1, pp. 1–15.

111.   ISIC REV. 3 technology intensity definition – OECD 2011

112.   Iversen, S. H. 1935. Aspects of International Capital Movements. London, England: Levin and Munksgaard.

113.   Jiang, C., and C. Lattemann. 2018. "Chinese outward foreign direct investment in Europe under the guidance of BRI – A focus on China–CEE economic relations". *China and the World*, 1(4), 1850022. https://doi.org/10.1142/s2591729318500220

114.   Johanson, J. and J.E. Vahlne. 2009. "The Uppsala internationalization process model revisited: from liability of foreignness to liability of outsidership", Journal of International Business Studies, Vol. 40 No. 9, pp. 1411-1431.

115.   Kang, Yuanfei and Fuming Jiang. "FOREIGN DIRECT INVESTMENT location choice of Chinese multinationals in East and Southeast Asia: Traditional economic factors and institutional perspective.*" Journal of World Business* 7 (2012): 45-53.

116.   Kaufmann, D., A. Kraay, and M. Mastruzzi. 2011. "The worldwide governance indicators: Methodology and analytical issues." *Hague Journal on the Rule of Law*, 3(2), 220–246. https://doi.org/10.1017/S1876404511200046

117.   Kennedy, Peter (2008).*A Guide to Econometrics* (Sixth ed.). Malden: Blackwell. p. 139. ISBN 978-1-4051-8257-7

118.   Kogut, B., and H. Singh. 1988. "The Effect of National Culture on the Choice of Entry Mode." Journal of International Business Studies 19 (3): 411–432.

119.   Kogut, B., and U. Zander. 1993. "Knowledge of the Firm and the Evolutionary Theory of the Multinational Corporation." Journal of International Business Studies 24:625–45. doi:10.1057/palgrave.jibs.8490248

120.   Kolstad, I., and A. Wiig. 2012. "What Determines Chinese Outward FOREIGN DIRECT INVESTMENT?" *Journal of World Business,* 47(1), 26-34. https://doi.org/10.1016/j.jwb.2010.10.017

121.   Kotabe, M. and Kothari, T. (2016), "Emerging market multinational companies' evolutionary paths to building a competitive advantage from emerging markets to developed countries", *Journal of World Business*, Vol. 51 No. 5, pp. 729-743.

122.   Kotabe, M., and T. Kothari. 2016. "Emerging Market Multinational Companies' Evolutionary Paths to Building a Competitive Advantage from Emerging Markets to Developed Countries." *Journal of World Business* 51 (5):729–43. doi:10.1016/j.jwb.2016.07.010

123.   Kotabe, M., Jiang, C.X. and Murray, J.Y. (2011), "Managerial ties, knowledge acquisition, realized absorptive capacity and new product marke-performance of emerging multinational companies: a case of China", J*ournal of World Business,* Vol. 46 No. 2, pp. 166-176.

124.   Kubny, J., & Voss, H. 2014. Benefitting from Chinese FOREIGN DIRECT INVESTMENT? An assessment of vertical linkages with Vietnamese manufacturing firms. *International Business Review*, 23(4): 731-740

125.   Kumari, R., and A. K. Sharma. 2017. "Determinants of foreign direct investment in developing countries: a panel data study." *International Journal of Emerging Markets*. DOI 10.1108/IJoEM-10-2014-0169

126.   Kutner, Michael, Christopher Nachtsheim, John Neter, and William Li. 2005. *Applied Linear Statistical Models*. 5th edition. New York: McGraw-Hill/Irwin.

127.   Lattemann, C., I. Alon, F. Spigarelli, and S. T. Marinova. 2017. "Dynamic Embeddedness in Chinese Firm Internationalization." *Thunderbird International Business Review* 59:547–59. doi:10.1002/tie.21898

128.   Lattemann, C., I. Alon, F. Spigarelli, and S. T. Marinova. 2017. "Dynamic Embeddedness in Chinese Firm Internationalization." *Thunderbird International Business Review* 59:547–59. doi:10.1002/tie.21898

129.   Li, J., J. Xia, D. Shapiro and Z. Lin. 2018. "Institutional compatibility and the internationalization of Chinese SOEs: The moderating role of home subnational institutions". *Journal of World Business*, 53(5), 641–652.

130.   Li, J., Meyer, K.E., Zhang, H. and Ding, Y. 2018 Diplomatic and Corporate Networks: Bridges to Foreign Locations. *Journal of International Business Studies*, 49, 659-683.

131.   Li, J., Newenham-Kahindi, A., Shapiro, D.M. and Chen, V.Z. 2013, "The two-tier bargaining model revisited: theory and evidence from China's natural resource investments in Africa",*Global Strategy Journal*, Vol. 3 No. 4, pp. 300-321

132.   Li, Jing, Yong Li, and Daniel Shapiro. 2012. "Knowledge seeking and outward foreign direct investment of emerging market firms: The moderating effect of inward foreign direct investment." *Global Strategy Journal* 2 (4): 277−295.

133.   Li, Jingjing, and Xianming Wu. 2022. "Technology-Driven Cross-Border M&A, CSR, and Enterprise Innovation Performance—Evidence from China".*Sustainability.* 14, no. 7: 4169. https://doi.org/10.3390/su14074169

134.   Li, M. H., Cui, L., and Lu, J. 2017. Marketized state ownership and foreign expansion of emerging market multinationals: Leveraging institutional competitive advantages. *Asia Pacific Journal of Management*, 34(1): 19-46.

135.   Li, M. H., Cui, L., and Lu, J. 2017. Marketized state ownership and foreign expansion of emerging market multinationals: Leveraging institutional competitive advantages. *Asia Pacific Journal of Management*, 34(1): 19-46.

136.   Li, Q. and Liang, G. 2012, "Political relations and Chinese outbound direct investment: evidence from firm- and dyadic-level tests", *Working Paper* No. 19, Research Center for Chinese Politics and Business, Indiana University, Bloomington, IN

137.   Li, W., Guo, B. and Xu, G.X. 2017, "How do linking, leveraging and learning capabilities influence the entry mode choice for multinational firms from emerging markets?", *Baltic Journal of Management*, Vol. 12 No. 2, pp. 171-193.

138.   Liang, H., R. Bing, and S. L. Sun. 2014. "An Anatomy of State Control in the Globalization of State-owned Enterprises." Journal of International Business Studies 46 (2): 223–240. doi:10.1057/jibs.2014.35.

139.   Lindner, T., J. Muellner, and J. Puck. 2016. "Cost of capital in an international context: institutional distance, quality, and dynamics." *Journal of International Management* 22:234–248. https://doi.org/10.1016/j.intman.2016.01.001

140.   Liu, H., Y. Tang, X. Chen, and J. Poznanska. 2017. "The Determinants of Chinese Outward FOREIGN DIRECT INVESTMENT in Countries along One belt one road". *Emerging Markets Finance and Trade*, 53(6), 1374-1387.

141.   Liu, X.G. and L.X. Yang. 2016. "Bilateral Political Relations, Host Country System Environment and Foreign Direct Investment". *Financial Research*, No. 12, 17-26.

142.   Loree, D. W., and S. E. Guisinger. 1995. "Policy and non-policy determinants of us equity foreign direct-investment". *Journal of International Business Studies,* 26(2), 281–299.

143.   Lu, J., X. Liu, and H. Wang. 2011. "Motives for Outward foreign direct investment of Chinese Private Firms Firm Resources, Industry Dynamics, and Government Policies." *Management and Organization Review* 7 (2):223–48. doi:10.1111/j.1740-8784.2010.00184.x

144.   Luo, Y. and Rui, H. 2009, "An ambidexterity perspective toward multinational enterprises from emerging economies", *The Academy of Management Perspectives*, Vol. 23 No. 4, pp. 49-70.

145.   Luo, Y., and Tung, R. L. (2007). International Expansion of Emerging Market Enterprises: A Springboard Perspective. *Journal of International Business Studies*, 38(4), 481–498.

146.   Luo, Y., and R. L. Tung. 2018. A general theory of springboard Multinationals . *Journal of International Business Studies*, 49(2): 129-152.

147.   Luo, Y., and S.L. Wang. 2012. "Foreign direct investment strategies by developing country multinationals: A diagnostic model for home country effects". *Global Strategy Journal*, 2(3), 244–261

148.   Luo, Y., Q. Xue, and B. Han. 2010. "How emerging market governments promote outward foreign direct investment: experience from China", *Journal of World Business*, Vol. 45 No. 1, pp. 68-79.

149. Lv , P., and Spigarelli, F. 2016 . The determinants of location choice: Chinese foreign direct investments in the European renewable energy sector. *International Journal of Emerging Markets*, 11 , 333 – 356 .

150. Madhok, A. and M. Keyhani. 2012 "Acquisitions as entrepreneurship: asymmetries, opportunities, and the internationalisation of multinationals from emerging economies", *Global Strategy Journal*, Vol. 2 No. 1, pp. 26-40.

151. Maijoor S.,and Van Witteloostuijn A., 1996, 'An empirical test of the resource based theory: strategic regulation in the Dutch audit industry', *Strategic Management Journal*, 17, 549-56

152. Makino, S., Lau, C.-M., and Yeh, R.-S. 2002. Asset-exploitation versus asset-seeking: Implications for location choice of foreign direct investment from newly industrialized economies. *Journal of international business studie*s, 33(3): 403-421

153. Malhotra, S., P. Zhu, and W. Locander. 2010. "Impact of Host-Country Corruption on U.S. and Chinese Cross-Border Acquisitions". *Thunderbird International Business Review* 52 (6): 491–507.

154. Marinova, S., Child, J. and Marinov, M. 2012. Institutional Field for Outward Foreign Direct Investment: A Theoretical Extension? *Advances in International Management,* 25, 233-261

155. Mathews , J. A. 2002 . Dragon multinational: A new model for global growth . Oxford, England : Oxford University Press .

156. Mathews , J. 2006. Dragon multinationals: New players in 21st century globalization . Asia *Pacific Journal of Management* , 23 (1), 5 – 27 .

157. Mathews, J. A. 2009. "China, India and Brazil: Tiger technologies, dragon multinationals and the building of national systems of economic learning*". Asian Business & Management*, 8, 5–32.

158. Meyer, K. E., and Thaijongrak, O. 2013. The dynamics of emerging economy Multinationals : How the internationalization process model can guide future research. Asia *Pacific Journal of Management,* 30(4): 1125-1153

159. Meyer, K. E., and M. W. Peng. 2016. Theoretical foundations of emerging economy business research. *Journal of International Business Studies*, 41(7), 3–22.

160. Mikler, J. 2018. *The Political Power of Global Corporations*. Cambridge: Polity Press

161. Mohsin A. K. M., Hongzhen Lei, Hasanuzzaman Tushar, Syed Far Abid Hossain, Mohammad Ebrahim Hossain and Afroja Hossain Sume. 2021."Cultural and Institutional Distance of China's Outward Foreign Direct Investment Toward the "Belt and Road" Countries",*The Chinese Economy*, 54:3, 176-194,DOI: 10.1080/10971475.2020.1848468

162. Mudambi, R., and P. Navarra. 2002. "Institutions and international business: A theoretical overview". *International Business Review* 11: 635-646.

163. Mundlak, Yair. 1978: "On the Pooling of Time Series and Cross Section Data." *Econometrica* 46, no. 1 69–85. https://doi.org/10.2307/1913646.

164. Muralidharan , E. , Wei , W. , and Liu , X. 2017. Integration by emerging economy multinationals: Perspectives from Chinese mergers and acquisitions . T*hunderbird International Business Review* , 60 . doi:10.1002/tie.21850

165. Na, L. and Lightfoot, W.S. 2006. "Determinants of foreign direct investment at the regional level in China", *Journal of Technology Management in China*, Vol. 1 No. 3, pp. 262-278.

166. NACE Rev2 - Statistical Classification of Economic Activities in the European Community, Review. 2 (2008)

167. National Bureau of Statistics of China 2019. *National Data. Overseas Direct Investment by Countries or Regions*. Beijing: National Bureau of Statistics of China. http://www.stats.gov.cn/tjsj/ndsj/2019/indexeh.htm

168. Nedopil, Christoph (January 2022) "China Belt and Road Initiative (BRI) Investment Report 2021", Green Finance & Development Center, FISF Fudan University, Shanghai.

169. North D. 1990. *Institutions, Institutional Change and Economic Performance*. Cambridge University Press: Cambridge, UK.

170. North, D. C. 1993. "Institutions and credible commitment". *Journal of Institutional Theoretical Economics*, 149, 11–23.

171. Nuruzzaman, N., D. Singh, and A. S. Gaur. 2020. "Institutional support and hazards, and internationalization of emerging market frms". *Global Strategy Journal*, 10(2), 361–385.

172. Ojala, Arto, and Pasi Tyrväinen. 2007. "Market entry and priority of small and medium-sized enterprises in the software industry: An empirical analysis of cultural distance, geographic distance, and market size". *Journal of International Marketing* 15 (3): 123-149.

173. Pan, Z., and Z.K. Jin. 2015."Bilateral Political Relations, Host Country Institutional Risks and China's Foreign Direct Investment". *Finance and Trade Economy*, No. 6, 85-94.

174. Pananond, P. 2013, "Where do we go from here?: Globalizing subsidiaries moving up the value chain", *Journal of International Management*, Vol. 19 No. 3, pp. 207-219.

175. Pandya SS. 2014. *Trading Spaces*. Cambridge, UK: Cambridge Univ. Press

176. Paul, J. 2015. "Does the WTO Increase Trade and Cause Convergence?" *The International Trade Journal* 29 (4):291–308. doi:10.1080/08853908.2015.1053632

177. Paul, J. and G. Benito. 2018. "A review of research on outward foreign direct investment from emerging countries, including China: what do we know, how do we know and where should we be heading?". *Asia Pacific Business Review*. 24. 90-115. 10.1080/13602381.2017.1357316.

178. Peng, Fei, Lili Kang, Taoxiong Liu, Jia Cheng, and Luxiao Ren. 2020. "Trade Agreements and Global Value Chains: New Evidence from China's Belt and Road Initiative" *Sustainability* 12, no. 4: 1353. https://doi.org/10.3390/su12041353

179. Peng, M. 2012. The Global Strategy of Emerging Multinationals from China. *Global Strategy Journal*, 2(2), 97-107.

180. Peng, M. 2001. The Resource-Based View and International Business. *Journal of Management*, 27(6), 803-829.

181. Peng, M., D. Wang, and Y. Jiang. 2008. "An Institution-Based View of International Business Strategy: A Focus on Emerging Economies". *Journal of International Business Studies*, 39(5), 920-936.

182. Penrose, E. (1995). The Theory of the Growth of the Firm (3rd ed.). Great Britain: Oxford University Press.

183. Porter, M. E. 2008. Competitive Strategy: Techniques for Analyzing Industries and Competitors. New York, NY: Simon and Schuster

184. Pradhan, Jaya Prakash. 2017. "Emerging Multinationals: A Comparison of Chinese and Indian Outward Foreign Direct Investment." *Institutions and Economies* 3 (1): 113–148.

185. Qian, W. 2019. "Institutional Distance, Bilateral Political Relations and the Success or Failure of Chinese Enterprises' Foreign Direct Investment". *Open Journal of Social Sciences*, 7, 198-214.https://doi.org/10.4236/jss.2019.711014

186. Quazi, R.M. 2007. "Foreign direct investment in Latin America: a panel regression study", T*he International Journal of Business and Finance Research,* Vol. 1 No. 1, pp. 59-67

187. Quer, D., E. Clave and L. Rienda. 2012. "Political Risk, Cultural Distance, and Outward Foreign Direct Investment: Empirical Evidence from Large Chinese Firms." *Asia Pacific Journal of Management* 29 (4): 1089–1104.

188. Quer, D., E. Clave and L. Rienda. 2018. "The influence of political risk, inertia and imitative behavior on the location choice of Chinese multinational enterprises: Does state ownership matter?" *International Journal of Emerging Markets* 13 (3): 518–535.

189. Ra, W., and C. Qian. 2014. "Location differences between privatized state-associated enterprises (PSEs) and privately owned enterprises (POEs) from China in outward foreign direct investment (OFDI)". *International Business Journal*, 25(1), 143–177. https://doi.org/10.14365/ibj.2014.25.1.6

190. Ramamurti, R. 2012." What is really different about emerging market multinationals?" *Global Strategy Journal*, 2, 41–47. doi:10.1002/gsj.1025

191. Ramamurti, R. 2009. "What have we learned about emerging market Multinationals ?", in Ramamurti, R. and Singh, J. (Eds), *Emerging Multinationals in Emerging Markets*, Cambridge University Press, Cambridge, pp. 399-426

192. Ramasamy, B., M. Yeung, and S. Laforet. 2012. "China's Outward Foreign Direct Investment: Location Choice and Firm Ownership." *Journal of World Business* 47 (1): 17–25.

193. Ramsey, J. B. 1969. "Tests for Specification Errors in Classical Linear Least Squares Regression Analysis". *Journal of the Royal Statistical Society*, Series B. 31 (2): 350–371. JSTOR 2984219.

194. Richet, Xavier. 2016. *Regional Development and Intra-firm Networks in the Enlarged European Union: the Role of Foreign Direct Investment* in *Western Balkans Integrating the EU: Challenges, Policies, Issues* edited by Xavier Richet, Srdjan Redzepagic, pp. 101-117. Nice :CEMAFI International

195. Rogmans, T. and H. Ebbers. 2013. "The determinants of foreign direct investment in the Middle East North Africa region." *International Journal of Emerging Markets*, Vol. 8 No. 3, pp. 240-257.

196. Rolando Avendano, Angel Melguizo, and Sean Miner 2017, Chinese foreign direct investment in Latin America- New Trends with Global Implications, OCED development center, ISBN: 978-1-61977-402-5)

197. Różański, Jerzy, and Sekuła Paweł. 2016. "Determinants of Foreign Direct Investment in Developed and Emerging Markets". D*ynamic Econometric Models* 16(1):49-64. https://doi.org/10.12775/DEM.2016.005.

198. Rugman, A. 2009. Theoretical aspects of Multinationals from emerging markets. in Ramamurti, R. and Singh, J. (Eds), Emerging Multinationals in Emerging Markets, Cambridge University Press, Cambridge, 42-63.

199. Rugman, A. M. 1981. Inside the Multinationals: The Economics of Internal Markets. New York, NY: Columbia University Press.

200. Rugman, A. M. 2010. "Book Review: Globalization of Chinese Enterprises." The International Trade Journal 24 (3): 352–354.

201. Salehizadeh, M. 2007. Emerging Economies' Multinationals: Current Status and Future Prospects. *Third World Quarterly*,28(6), 1151-1166.

202. Santangelo, G. D., & Stucchi, T. (2018). Internationalization through exaptation: The role of domestic geographical dispersion in the internationalization process. Journal of International Business Studies, 49(6), 753–760. https://doi.org/10.1057/s41267-018- 0151-y

203. Schwens, Christian, Julia Eiche, and Ruediger Kabst. 2011. "The moderating impact of informalinstitutional distance and formal institutional risk on SME entry mode choice." *Journal of Management Studies* 48 (2): 330–351.

204. Scott , W. R. 1995. Institutions and organizations . Thousand Oaks, CA : Sage .

205. Scott, W. R. 2013. Institutions and Organizations: Ideas, Interests, and Identities. London, UK: Sage Publications

206. Shan, S., Z. Lin, Y. Li, and Y. Zeng. 2018. "Attracting Chinese foreign direct investment in Africa: The role of natural resources, market size and institutional quality", critical perspectives on international business, Vol. 14 No. 2/3, pp. 139-153. https://doi.org/10.1108/cpoib-11-2016-0055

207. Shapiro, Daniel M., Carlos Vecino, and Jing Li. 2018. "Exploring China's state-led foreign direct investment model: Evidence from the extractive sectors in Latin America". *Asia Pacific Journal of Management* 35 (1): 11–37.

208. Shi, W., Sun, S., Yan, D. and Zhu, Z. 2017. "Institutional Fragility and Outward Foreign Direct Investment from China". *Journal of International Business Studies*, 48(4), 452-476

209. Sun, C., and Y. Liu. 2019. "Can China's diplomatic partnership strategy benefit outward foreign direct investment?" *China & World Economy*, 27(5), 108–134. https://doi.org/10.1111/cwe.12289

210.   Sun, J., Wang, S. L., & Luo, Y. 2018. Strategic entry or strategic exit? International presence by emerging economy enterprises. International Business Review, 27(2): 418-430

211.   Teece, D. 2014. A Dynamic Capabilities-Based Entrepreneurial Theory of the Multinational Enterprise. Journal of International Business Studies, 45(1), 8-37.

212.   The World Bank Group - Foreign direct investment, net outflows (BoP, current US$) – China.
https://data.worldbank.org/indicator/BM.KLT.DINV.CD.WD?end=2019&locations=CN&most_recent_value_desc=false&start=2007&view=chart, retrieved 2021

213.   Tobin, J.L and S. Rose-Ackerman. 2011. "When BITs have some bite: the political-economic environment for bilateral investment treaties". *The Review of International Organizations.* 6(1):1–32

214.   Torres de Oliveira, R. and D. Rottig. 2018. "Chinese Acquisitions of Developed Market Firms: Home Semi-Formal Institutions and a Supportive Partnering Approach". *Journal of Business Research*, 93, 230-241.

215.   Tsung-Li, W., H. P. Lin, and C. L. Yang. 2017. "Causality on Outward Foreign Direct Investment and Domestic Investment in Newly Industrialized Asian Countries." *Economic Computation and Economic Cybernetics Studies and Research* 51 (2): 267–280.

216.   Vakulchuk Roman, Farkhod Aminjonov, Indra Overland, Bahtiyor Eshchanov, 2019." BRI in Central Asia: Overview of Chinese Projects", *Central Asia Regional Data Review, 20*, p. 3.

217.   Vasquez, Patricia I. 2018. *China. Oil and Latin America: Myth vs. Reality.* Washington, DC: Atlantic Council Adrienne Arsht Latin America Center.

218.   Verma, R., and L. Brennan. 2013. *An analysis of the macroeconomic determinants of Indian outward foreign direct investment*. In M. A. Marinov, & S. T. Marinova (Eds.), Emerging economies and firms in the global crisis. Houndmills, UK: Palgrave Macmillan, pp. 137−153.

219.   Wang, C., J. Hong, M. Kafouros, and A. Boateng. 2012. "What Drives Outward foreign direct investment of Chinese Firms? Testing the Explanatory Power of Three Theoretical Frameworks." *International Business Review* 21 (3):425–38. doi:10.1016/j.ibusrev.2011.05.004.

220.   Wang, H. Y. and X. Y. Hu, 2017, "China's 'going-out' strategy and corporate social responsibility: Preliminary evidence of a 'boomerang effect'," *Journal of Contemporary China,* Vol. 26, No. 108, pp. 820–33.

221.   Wernerfelt, B. 1984. "A Resource-Based View of the Firm." *Strategic Management Journal* 5 (2):171–80. doi:10.1002/(ISSN)1097-0266

222.   Whitley, R. 1999. "Firms, Institutions and Management Control: The Comparative Analysis of Coordination and Control Systems." *Accounting, Organizations and Society* 24 (5– 6):507–24. doi:10.1016/S0361-3682(97)00030-5.

223.   Williamson, P. 2015. The Competitive Advantages of Emerging Market Multinationals: A Reassessment. *Critical Perspectives on International Business*, 11(3-4), 216-235.

224. Williamson, P., and Wan, F. 2018. Emerging Market Multinationals and the Concept of Ownership Advantages. I*nternational Journal of Emerging Markets*, 13(3), 557-567.

225. Wu, L. 2017. "Drivers of Chinese outward foreign direct investment and the location choice". *DEStech Transactions on Economics, Business and Management (icem*), 5(4), 467–473. https://doi.org/10.12783/dtem/ icem2017/13088

226. Xiao, S. S., Y. K Lew, and B. I. Park. 2019. "'2R-Based View' on the internationalization of service Multinationals from emerging economies: Evidence from China". *Management International Review*, 59(4), 643–673.

227. Xu, Yuehua, Songhua Hu, and Xu'ang Fan. 2011. "Entry mode choice of Chinese enterprises: The impacts of country risk, cultural distance and their interactions". *Frontiers of Business Research in China* 5 (1): 63–78.

228. Yang, X., Y.-T. Lim, Y. Sakurai, and S.-Y. Seo. 2009. "Internationalization of Chinese and Korean Firms." *Thunderbird International Business Review* 51 (1):37–51. doi:10.1002/tie.v51:1

229. Zhang, J. and X. He. 2014 "Economic nationalism and foreign acquisition completion: the case of China", *International Business Review*, Vol. 23 No. 1, pp. 212-227.

230. Zhang, J., J. Jiang, and C. Zhou. 2014. "Diplomacy and Investment – the Case of China". *International Journal of Emerging Markets* 9 (2): 216–235.

231. Zhang, L., and Z. Xu. 2017. "How do cultural and institutional distance affect China's outward foreign direct investment towards the OBOR countries?" *Baltic Journal of European Studies,* Vol. 7 No. 1, pp. 24-42

232. Zhang, M., Tansuhaj, P. and McCullough, J. (2009). International Entrepreneurial Capability: The Measurement and a Comparison between Born Global Firms and Traditional Exporters in China. *Journal of International Entrepreneurship*, 7(4), 292-322.

233. Zhang, X., and K. Daly. 2011. "The determinants of China's outward foreign direct investment". *Emerging Markets Review*, 12, 389-398.

234. Zhang, X., Ma, X., Wang, Y., Li, X., and Huo, D. 2016. What drives the internationalization of Chinese SMEs? The joint effects of international entrepreneurship characteristics, network ties, and firm ownership. *International Business Review*, 25(2): 522-534.

235. Zhang, Xiang. 2018. "The socioeconomic geography of Chinese outward foreign direct investment in Latin America". *GeoJournal*. https://doi.org/10.1007/s10708-018-9902-3

236. Zheng, Y., D.Yan, and B. Ren, 2016 "Institutional distance, firm heterogeneities, and FOREIGN DIRECT INVESTMENT location choice of Emerging markets multinationals ", *Nankai Business Review International,* Vol. 7 No. 2, pp. 192-215

237. Zhou, C. Y., J. Hong, Y. R. Wu and D. Marinova, 2018, "Outward foreign direct investment and domestic innovation performance: Evidence from China," *Technology Analysis & Strategic Management*, Vol. 31, No. 1, pp. 81–95