The 45 years of foreign direct investment research: Approaches, advances and analytical areas

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2 authors:

Justin Paul
University of Puerto Rico & Deakin University,…

Gurmeet Singh
National rural livlihood Mission

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INVITED REVIEW

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The 45 years of foreign direct investment research: Approaches, advances and analytical areas

Justin Paul[1] | **Gurmeet Singh**[2]

[1]Graduate School of Bus, University of Puerto Rico, San Juan, USA

[2]Banasthali University, Tonk, Rajasthan, India

1 | INTRODUCTION

Foreign direct investment (FDI) is the most researched field in the area of international management (Werner, 2002). The presence of literature which evaluates the impact of FDI on home countries is fairly substantial (e.g., Anwar & Nguyen, 2011; Bergsten, Horst, & Moran, 1978; Bhasin & Paul, 2016; Dunning, 2000; Horst, 1976; Mudambi & Mudambi, 2002; Rugman, 1987, 2011). In the recent years, outward foreign direct investment (OFDI) has attracted increasing attention among researchers, policymakers and transnational corporations headquartered in emerging markets, especially in the BRIC (Brazil, Russia, India and China) countries (Gaffney, Kedia, & Clampit, 2013; Hattari & Rajan, 2010; Sauvant, 2005). Econometric literature on the host country determinants of FDI also exists in significant quantity and they argue that the countries which attract FDI are those which have good institutions. (Globerman & Shapiro, 2002).

Those who argue in terms of capital arbitrage explain FDI as an international flow of capital. Hymer (1976) presents a full microeconomic model of FDI which helps a more detailed study of these arguments. His assumption is that firms which invest abroad aim to maximise their total profit. Kindleberger (1969) and Knickerbocker (1973) argue that as multinational enterprises are logically inconsistent with pure competition, additional effects are needed to give a convincing explanation to their existence. Researchers, even in the last century, have considered FDI as a way to achieve technology spillovers, which also significantly contribute towards economic growth. (Borensztein, Gregorio, & Lee, 1998; Findlay, 1978). The benefits to be derived from FDI are dependent on the quality of FDI rather than the quantity (Enderwick, 2005), and also on its absorptive capacity (Alfaro, Chanda, Kalemli, & Sayek, 2004; Durham, 2004). There is also an increasing amount of literature on FDI flows from emerging economies (e.g., Filatotchev, Strange, Piesse, & Lien, 2007; Liu, Buck, & Shoo, 2005).

To the best of the authors' knowledge, this study is the first comprehensive review on FDI covering all areas and 45 years of research. Our article seeks to provide a more comprehensive analysis of empirical research performed to date on FDI. For this, we have examined empirical articles published in leading business and economics journals between the years 1970 and 2014. This study enriches the existing literature, mainly in three ways. First, we examine the theoretical approaches and methodologies, which are empirically tested in the literature on FDI, in a broad manner that makes the review different from previous studies. Second, we try to fill the gap in the literature by reviewing and classifying FDI studies for highlighting the major contributions that have been made as publications in journals. Third, we highlight knowledge gaps and offer promising directions for future research.

2 | RESEARCH DOMAIN

Foreign direct investment occurs when a firm invests in real assets in a foreign country to produce or market a product. According to the United States Department of Commerce, foreign investment is considered as FDI whenever an organisation takes a stake of 10% or more in a foreign company (Paul, 2013). FDI includes foreign subsidiaries and equity joint ventures. FDI takes place through acquisitions or green-field investments made by multinational enterprises. Although research on country-level determinants (e.g., regulatory, political, economic and cultural institutions) has considerably matured and progressed, there remain varied definitions and institutions. Similarly, researchers differ on the effects of FDI and multinational enterprises on host countries (e.g., Akbar & McBride, 2004; Asiedu, Jin, & Nandwa, 2009; Lipsey, 2002). However, Alvarez and Marin (2013) conclude that though there are positive effects, a consistent relationship between FDI stock and economic growth does not exist.

Even though recent notable studies (e.g., Buckley, Clegg, Cross, Liu, Voss, & Zheng, 2007; Chan, Makino, & Isobe, 2006) provide new dimensions to FDI research, there are some unexplored areas where researchers need to pay more attention. Despite the fact that hundreds of articles have been published on FDI, some of them are limited in scope as they examine repeatedly just one of the conceptual frameworks or their measures in a different country context (Figure 1). Taking into account the importance of the topic and available literature, this paper has adopted a totally different approach. This review provides a host of information including the theories and constructs which have been used in studies, the countries which provide and receive besides the main variables of interest and statistical methodologies adopted in the studies, and the articles related to FDI published between the years 1970 and 2014. Although we found a classic review paper on international entry modes (Canabal & White, 2008), a comprehensive review-based study on FDI still could not be found. There are researches that partly review one of the aspects of FDI (e.g., Blonigen, 2005; Meyer, 2003), but no single paper has covered all the aspects of FDI research till now, despite the fact that FDI is the most researched field in the area of international business. With this article, we are attempting to fill this gap in the literature.

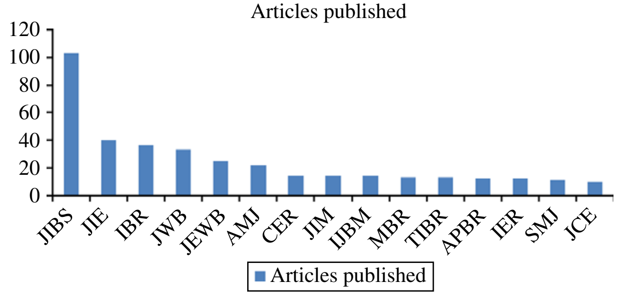

FIGURE 1 Journal Distribution of Published articles on foreign direct investment

3 | METHOD

The authors started with the references in the literature reviews, to identify the research papers to include in the database for this article. Next, we searched online databases (Business Source Premier, JSTOR, Science Direct, ProQuest & Google Scholar) to identify all articles published on FDI from 1970 April to March 2014. We used this timeframe with the intention of carrying out the most comprehensive study on FDI. However, we have performed citation analysis with the counts as on 19 January 2017, and included in Table 6. We followed a "systematic review process" (Terjesen, Hessels, & Li, 2013) of empirical studies that came up while researching online using keywords Foreign Direct Investment, FDI, Inward FDI, Outward FDI, Multinational Enterprise, MNE and Foreign Subsidiary so that we could focus on hardcore empirical research on FDI with theoretical and methodological applications in literature. This approach helped us highlight the theories and constructs, which are commonly used while identifying theories linked to FDI research. As such, our definition of FDI is broad and inclusive of many subtopics.

We restricted ourselves to articles from the journals included either in the Social Science Citation Index (SSCI), or in the official list of journals approved by the Association of Business Schools, United Kingdom. Further, we cross-checked by browsing through the individual websites of all Grade 4 (A*), Grade 3 (A) and Grade 2 (B) international business, management and economics journals from the UK list with the same keywords search to make sure that we covered all articles directly related to FDI published in top journals (International Economics was included as it is the mother discipline of International Business). Our original collection was over 500 articles. However, we decided to restrict ourselves to articles with the term FDI or FDI included in the title/abstract/keywords from the online databases and from the above-mentioned journals to minimise the sample bias to the least possible extent. Thus, we selected 451 articles.

After that, we built a database of articles with the information collected, with an aim to record the increase in publications on FDI over the time period 45 years, we divided our study into different time periods. We found 71 articles were published during 1970–99, 129 articles during 1999–2006 and 251 during 2006–14, of 451 articles in our sample. These data convey that interest in research on FDI has significantly increased during the time period 2000–14. As an outcome, the number of FDI articles published during 2000–14 also increased substantially compared to the previous 30 years. More interestingly, the number of FDI articles published between the years 2006 and 2014 has almost doubled, compared to the corresponding previous 8-year time period. We assume that one of the reasons for this is the continued internationalisation and growth of multinational enterprises due to the globalisation policies implemented by most governments.

4 | RESULTS

The results section has been divided into different parts. In the first part, we have reviewed overall contributions of FDI studies, taking into account the theories and constructs used and journals publishing FDI studies. In the second part, we have examined the methodological aspects of the studies and statistical analysis performed. And in the third part, we have also carried out a citation analysis, to identify impactful articles and authors.

4.1 | Review of contributions

4.1.1 | Theories and constructs used

Based on the literature on FDI, we decided to make a list in which the concepts, theories and constructs that are used most are ranked and classified. This was envisaged to be an organisational tool for classifying theories and constructs with specific FDI papers and their authors. The list thus created is presented in Table 1, along with the names of the author(s) and year of publication.

Inward FDI

The most commonly used construct in FDI studies was IFDI (i.e., inward foreign direct investment), with over 60 appearances. Empirical literature studying the economic growth effects of inward FDI on host countries can be found in refs.: Alguacil, Cuadros, and Orts (2002), Baharumshah and Thanoon (2006), Balasubramanyam, Salisu, and Sapsford (1996, 1999), Borensztein et al. (1998), Chakraborty and Basu (2002), Liu, Burridge, and Sinclair (2002).

Outward FDI

The second most commonly used construct was outward FDI with over 40 appearances. This construct helps to explain the relationship between OFDI and exports, OFDI and domestic investment etc. (e.g., Desai, Foley, & Hines, 2005; Stevens & Lipsey, 1992). On the other hand, there are remarkable studies on the determinants of OFDI from the emerging markets in the recent past (e.g., Buckley, Clegg, Cross, Liu, Voss and Zheng, 2007 on OFDI from China) that have captured the attention of the researchers and resulted in many citations.

GDP

The third most commonly used construct was GDP with 35 appearances. Angresano, Bo, and Muhan (2002) found that real GDP had a considerable positive impact on FDI inflows. They also observed that the GDP growth rate had a minor positive impact on inward FDI. Hsiao and Shen (2003) have shown the two-way relationship between FDI and growth using the variables FDI and GDP. On the other hand, based on data from 28 developing countries, they have also argued that FDI has neither long-term nor short-term effect on growth. They did not find even a single country where FDI has a positive unidirectional long-term effect on GDP.

Ownership, location and internalisation theory

Ownership, location and internalisation (OLI) was found to be the most used theory (with over 25 appearances; Dunning, 1988). The ownership competitive advantage argues that, ceteris paribus, the investing firms which have greater competitive advantages compared to other firms are more likely to have the ability to engage in, or increase, foreign production (Dunning, 2001). The classical model for determinants of FDI begins from the earlier research work of Dunning (1973, 1981) which provides a comprehensive analysis based on OLI paradigm. The location choices and factors may determine the firms' global competitiveness, influencing their survival chances (Benito & Gripsrud, 1992; Boeh & Beamish, 2012; Chen, Chen, & Ku, 2004).

Internalisation

Internalisation theory has been applied in over 20 FDI studies. The focus of this was to explain the growth of transnational companies and their motivation for engaging in FDIs (Denisia, 2010). In this context, researchers (Buckley & Casson, 1976; Rugman, 1980) demonstrated that

TABLE 1 Theoretical approaches and constructs used in foreign direct investment (FDI) research (1970–2014)

Theory/Construct	Number of Studies	Authors*
Inward FDI	Over 60	Brouthers, Werner and Wilkinson (1996), Borensztein et al. (1998), Nabendem and Ford (1998), Mello (1997; 1999), Thomas and Grosse (2001), Liu, Wang and Wei (2001), Liu et al. (2002), Chakraborty and Basu (2002), Chung, Mitchell and Yeung (2003), Trevino and Mixon (2004), Gao (2005), Globerman and Shapiro (2006), Baharumshah and Thanoon (2006), Salavrakos (2006), Buckley, Clegg and Wang (2007), Driffield and Love (2007), Cazurra (2008), Sharahili and Liu (2008), Gorynia, Nowak and Wolniak (2008), Head and Ries (2008), Lim (2008), Merican (2009), Sadig (2009), Hailu (2010), Duan (2010), Lian and Ma (2010), Hattari and Rajan (2010), Ilgun, Koch And Orhan (2010), Kalotay (2010), Misztal (2010), Khrawish and Siam (2010), Gorynia, Nowak and Wolniak (2010), Fetscherin, Voss and Gugler (2010), Omankhanlen (2011), Radu and Joia (2011), Kumar and Dhingra (2011), Shahmoradi and Baghbanyan (2011), Driga (2011), Vural And Zortuk (2011), Iqbal and Ghuari (2011), Ranjan and Agrawal (2011), Lina, Yuxia and Jing (2011), Lee and Rugman (2012), Liu, Daly and Varua (2012), Săvoiu And Popa (2012), Eryigite (2012), Kornecki and Ekanayake (2012), Ilgün and Tatić (2012), Gianina (2012), Khoon, Wong, Nyen and Tham (2012), Villaverde and Maza (2012), Gjebrea and Zoto (2013), Akwaowo (2013), Shahzad and Al-Swidi (2013), Alavinasab (2013), Kalotay and Sulstarova (2013), Kastrati (2013) and Resmini and Siedschlag (2013)
Outward FDI	42	Tallman (1988), Braunerhjelm, Oxelheim and Thulin (2005), Liu, Buck, and Shoo (2005), Pak and Park (2005), Globerman and Shapiro (2006), Rammal and Zurbruegg (2006), Kalotay (2006), Witt and Lewin (2007), Gorynia, Nowak and Wolniak (2008), Morck, Yeung and Zhao (2008), Head and Ries (2008), Sanyal and Samanta (2008), Buckley, Clegg, Cross, Liu, Voss and Zheng (2007), Williams (2009), Alon (2010), Bhaumik, Driffield and Pal (2010), Cui and Jiang (2010), Masca and Vaidean (2010), Hattari and Rajan (2010), Tan and Meyer (2010), Wei (2010), Khrawish and Siam (2010), Luo, Xue and Han (2010), Gorynia, Nowak, Wolniak (2010), Kalotay and Sulstarova (2010), Shahmoradi and Baghbanyan (2011), Driga (2011), Radu and Joia (2011), Iqbal and Ghuari (2011), Wang, Hong, Kafouros and Boateng (2011), Zhang and Daly (2011), Kolstad and Wiig (2012), Gianina (2012), Ramasamy, Yeung and Laforet (2012), Khoon, Wong, Nyen and Tham (2012), Kang and Jiang (2012), Eryigite (2012), Ramasamy, Yeung and Laforet (2012), Kolstad and Wiig (2012), Stoian (2013), Gjebrea and Zoto (2013) and Wei, Zheng, Liu and Lu (2013)
GDP	35	Asiedu (2002), Globerman and Shapiro (2006), Fosu and Magnus (2006), Mottaleb (2007), Williams (2009), Sadig (2009), Merican (2009), Ma (2009), Lan and Yin (2009), Hattari and Rajan (2010), Aboudou (2010), Azam (2010), Hailu (2010), Misztal (2010), Omankhanlen (2011), Radu and Joia (2011), Ranjan and Agrawal (2011), Wadhwa and Reddy (2011), Shahmoradi and Baghbanyan (2011), Adhikary (2011), Agrawal and Khan (2011), Feridun and Sissoko (2011), Zhang and Daly (2011), Kolstad and Wiig (2012), Khoon, Wong, Nyen and Tham (2012), Eryigite (2012), Geamănu (2012), Liu, Daly and Varua (2012), Kurihara (2012), Săvoiu And Popa (2012), Sarode (2012), Aldehayyat and Alalaya (2012), Chien and Zhang (2012), Shahzad and Al-Swidi (2013) and Yaqub, Adam and Jimoh (2013)

(Continues)

TABLE 1 (Continued)

Theory/Construct	Number of Studies	Authors*
Ownership, location and internalisation theory	27	Dunning (1993), Brenton (1998), Dunning (2000), Loewendahl (2001), Mutinelli and Piscitello (2001), Estrin and Meyer (2004), Sinclair (2010), Azam (2010), Kumar, Sridharan and Rao (2010), Denisia (2010), Fabry And Zeghni (2010), Monica And Sincai (2011), Ranjan and Agrawal (2011), Deseatnicov, Săvoiu And Popa (2012), Djokoto (2012), Ilgün and Tatić (2012), Liu, Daly and Varua (2012), Alavinasab (2013), Aveh, Krah, Dadzie (2013), Andreff and Balcet (2013), Gaffney et al. (2013), Kastrati (2013), Vincze (2007), Djokoto (2012), and Aveh, Krah and Dadzie (2013) etc.
Internalisation	22	Buckley and Casson (1976), Hymer (1976), Rugman (1980), Hennart (1982), Hennart (1986), Rugman (1986), Denekamp (1995), Trevino and Grosse (2002), Rugman and Verbeke (2003), Desai et al. (2005), Pak and Park (2005), Li and Rugman (2007), Denisia (2010), Hattari and Rajan (2010), Rugman (2010), Tan and Meyer (2010), Săvoiu And Popa (2012), Maeseneire and Claeys (2012), Sellero, Martínez and Vázquez (2013), Kastrati (2013), Aveh, Krah and Dadzie (2013)
Economic growth	15	Gunaydin and Tatoglu (2005), Ghatak and Halicioglu (2007), Merican (2009), Kundan and Gu (2010), Misztal (2010), Hamadou (2011), Adhikary (2011), Feridun and Sissoko (2011), Tiwari and Mutascu (2011), Aldehayyat and Alalaya (2012), Săvoiu And Popa (2012), Akinmulegun and ojo (2012), Yaqub, Adam and Jimoh (2013), Morales, Gamberger, Schweizer and Brennan (2013) and Kastrati (2013)
Exports and FDI	11	Hejazi and Safarian (1999), Asiedu, (2002), Dritsaki and Adamopoulos (2004), Fosu and Magnus (2006), Aizenmana and Noy (2006), Tiwari and Mutascu (2011), Ranjan and Agrawal (2011), Adhikary (2011), Djokoto (2012), Oldenski (2012) and Aldehayyat and Alalaya (2012)
Uncertainty, risk and hassle	Over 10	Cushman (1985), Tan and Vertinsky (1996), Rivoli and Salorio (1996), Moon and Roehl (2001), Aizenman and Marion (2004), Le and Zak (2006), Park, Pak and Rugman (2006), Li and Rugman (2007), Cazurra (2008), and Kalotay and Sulstarova (2010)
Exchange rate	8	Buckley et al. (2007), Hattari and Rajan (2010), Denisia (2010), Kumar, Sridharan and Rao (2010), Khrawish and Siam (2010), Omankhanlen (2011), Ogunmuyiwa and Ogunleye (2012) and Aveh, Krah and Dadzie (2013)
Transaction cost theory	7	Boddewyn (1985), Rugman and Verbake (1992), Meyer (2004), Meyer and Peng (2005), Meyer and Nguyen (2005), Rugman and Verbeke (2005) and Beugelsdijk, Hennart, Slangen and Smeets (2010)
FDI, acquisition and entry modes	7	Chang and Rosenzweig (2001), Rugman and Verbake (2001), Wei, Liu and Liu (2005), Eicher and Kang (2005), Moreno, Ruiz and Gonzálbez (2007), Herrmann and Datta (2006) and Li and Rugman (2007)
Product life cycle theory	6	Vernon (1966), Moran (2000), Glass and Saggi (2002), Lu (2007), Denisia (2010), Aveh, Krah and Dadzie (2013), and Paul and Gupta (2013)
Taxes	4	Gordon and Hines (2002), Witt and Lewin (2007), Hattari and Rajan (2010) and Kornecki and Ekanayake (2012)
Neoclassical theory	4	Cockcroft and Riddell (1991), Ekpo (1996), Kim (2011) and Aveh, Krah and Dadzie (2013)

Note: *Full references available from the authors.

transnational companies organise their internal activities in such a way that it would give them certain specific advantages. Hymer (1976) contributed to this by discussing the problem of information costs incurred by foreign firms in respect to local firms, different treatment of governments and currency risk (Eden & Miller, 2004). Hennart (1982) developed models between vertical and horizontal integration.

Economic growth

The term economic growth was used as a construct in over 15 FDI studies. Some defined the role of FDI as a carrier of foreign technology and claimed that it could increase economic growth (Findlay, 1978). Ruxanda and Muraru (2010), using simultaneous equation methods, obtained evidence of bidirectional connection between FDI and growth, meaning that incoming FDI stimulates economic growth and, in turn, a higher GDP attracts FDI. Anwar and Nguyen (2010) identified the factors which determine the connection between FDI and economic growth and their study supports the argument to assess the FDI-led growth.

Trade

Trade was used as a variable in over a dozen FDI studies. This construct shows the relationship between international trade and FDI (complementary or substitute nature of relationship). Researchers have also explained how they can contribute to growth (e.g., Marin, 1992; Meier, 1984 etc.), which culminated in the export-led growth thesis. However, some studies have analysed the relationship between FDI and trade further, by taking a unified approach, which postulates simultaneous determination of the two flows in developed countries (Bhasin & Paul, 2016; Markusen & Maskus, 2002).

Uncertainty and risk

As reported in Table 1, uncertainty risk variables were used as constructs in over 10 FDI studies. Cushman (1985) examined how uncertainty acted as a determinant of FDI location. There is evidence that high country risk, a variable used to represent external uncertainty (Gatignon & Anderson, 1988), discourages investing in resources in foreign markets. This phenomenon is similar to what Miller (1992) described as avoidance response. Schotter and Beamish (2013) suggest that, besides traditional location choice criteria (including geographic and psychic distances, market potential), multinational enterprises, while deciding the locations for FDI, check if it is risky for their manager to travel to and live in those places. They call the phenomenon "hassle factor."

Exchange rate

Exchange rate theory was applied in eight FDI studies. The school of thought explained FDI using the concept of international trade and the foreign exchange risk exposure that it generates; based mainly on the assertions of Cushman (1985). This theory indicates that if there is an appreciation of a country's currency against the host nation's currency, it results in a reduction in FDI and vice versa (Denisia, 2010).

Product life cycle theory

Product life cycle (PLC) theory analysis was used in over half a dozen FDI studies. Vernon (1966) developed this to explain the type of FDIs that US companies were making in Western Europe after World War II, specifically in the manufacturing sector. He identified four stages of production which he believed was a continuous cycle: Innovation, Growth, Maturity and Decline. As per this theory, firms undertake exports, before thinking about production abroad in the form of FDI.

Taxes

Tax was used as a construct in four FDI studies. A contribution to this work is provided by Hajkova, Nicoletti, Vartia, and Yoo (2006), who investigate the impact of tax on FDI while controlling a number of policy and non-policy factors, and find that not controlling such factors may lead to serious overestimation of tax elasticity. Mooij and Ederveen (2003) found that most studies were reporting a negative relationship between taxation and FDI, but with a wide range of estimates of the tax elasticity of FDI. Mutti and Grubert (2004) investigate empirical asymmetries associated with the effects of taxation on foreign operations by US multinationals.

Neoclassical theory

Neoclassical theory has been applied in four FDI studies. Neoclassical economists argue that capital seeks the highest return; they say that cases like the rates of returns on investment differ across countries, and the result is opportunity for arbitrage profit; hence, capital holders seek to invest in the countries where returns are higher.

4.2 | Journals

We systematically examine FDI research analysing 451 articles published during 1970–2014. Table 2 lists the main journal outlets. We found that the maximum number of articles (103) was published by the *Journal of International Business Studies* (JIBS). This result is logical as JIBS is the oldest outlet business journal compared to other journals included in Table 2. *Journal of International Economics* (JIE) *published* the second highest number (40). These were followed by the *International Business Review* (IBR) (36), Journal *of World Business* (JWB) (33), *Journal of East-West Business* (JEWB) (25), Academy *of Management Journal* (AMJ) (22), Journal *of*

TABLE 2 Main outlets for foreign direct investment research (1970–2014)[a]

Journal name	Name of article
Journal of International Business Studies	103
Journal of International Economics	40
International Business Review	36
Journal of World Business	33
Journal of East-West Business	25
Academy of Management Journal	22
Journal of International Management	14
China Economic Review	14
International Journal of Business and Management	14
Multinational Business Review	13
Thunderbird International Business Review	13
Asia Pacific Business Review	12
International Economic Review	12
Strategic Management Journal	11
Journal of Comparative Economics	10

Note: [a]We exclude journals with less than 10 articles.

International Management (JIM) (14), China *Economic Review* (*CER*) (14) and *International Journal of Business and Management* (IJBM) (14).

Other journals that have published maximum articles on FDI were Multinational *Business Review* (MBR) (13), Thunderbird *International Business Review* (TIBR) (13), Asia *Pacific Business Review* (APBR) and International *Economic Review* (IER) (12), Strategic *Management Journal* (SMJ) (11) and *Journal of Comparative Economics* (JCE) (10). Based on this, we observed that JIBS, JIE, IBR, JWB, JEWB, AMJ, JIM, CER and IJBM were the main outlets for FDI research publication followed by MBR, TIBR, SMJ and TIBR.

4.3 | Review of FDI study methods

4.3.1 | Types of data used

Most studies used secondary data. This could be mainly due to the ease of availability.

4.3.2 | Home countries studied

We found that three large economies, China, USA and Japan, were the home countries/regions most commonly studied. This might be related to two reasons: there was a lot of FDI outflow from these countries; second, data from these countries/regions are more accessible. A few other studies have also examined FDI decisions from India, Spain, Turkey, South Africa and Singapore. Some researchers, instead of focusing on a single home country, studied multiple countries worldwide. Table 3 has the list of home countries most commonly studied by researchers in the FDI area.

4.3.3 | Statistical methods

The most commonly used statistical method was ordinary least square (OLS) regression, in a total of 116 studies. Other statistical methods used were correlations (93 studies). Descriptive statistics (52), Granger causality test (39), *F* test (31), co-integration analysis (26), augmented Dickey–Fuller (24), Vector autoregressive (VAR) (23), time series analysis (17), cross section analysis (16), *t* test (13), Phillips Perron (PP) tests (09) and unit root test (04). Table 4 shows a summary of the statistical methods used in FDI research.

4.3.4 | Variables studied

Although some studies did not use a regression framework, content analysis revealed that majority of the articles have used econometric models. So, we first identified the dependent variables (DVs), which are most commonly used in FDI researches and then, independent variables (IVs).

Dependent variables

The most commonly used DV was FDI (94 studies). The second most commonly used was gross domestic product (72). Other commonly used DVs are IFDI (51), OFDI (41) and export (23). Table 5 has a list of these DVs.

Independent variables

We found that the IVs used were different. The most commonly used IV was gross domestic product (in 104 studies). Foreign direct investment (72) and export (57) were also found to be heavily

TABLE 3 Primary home countries studied in foreign direct investment research

Rank no.	Home countries/regions
1	China
2	USA
3	Japan
4	Romania
5	Nigeria
6	India
7	Spain
8	Turkey
9	South Africa
10	Singapore

TABLE 4 Main statistical methods used in foreign direct investment research (1970–2014)

Analysis	Number of articles
Ordinary least square regression	116
Correlation	93
Descriptive statistics	52
Granger causality test	38
F test	31
Co-integration analysis	26
Augmented Dickey–Fuller	24
Vector autoregressive (VAR) approach	23
Time series analysis	17
Cross section analysis	16
t test	13
Phillips Perron (PP) tests	9
Unit root rest	4

TABLE 5 Commonly used DV

DVs	No.
FDI	94
GDP	72
IFDI	51
OFDI	41
Export	23
Import	21

Note: DV, dependent variables; FDI, foreign direct investment; IFDI, inward foreign direct investment; OFDI, outward foreign direct investment.

used IVs. Moreover, OFDI (41), import (36), inflation (18) and gross capital formation (12) were used in several studies.

4.4 | Citation analysis

Besides analysis of theories, methods, journals, etc. as with the prior articles (Canabel & White, 2008; Terjesen et al., 2013), we are providing a citation analysis, in an attempt to identify the most influential articles on FDI. Our citation analysis was carried out using the information from Google Scholar based on total number of citations and weighted citation scores for all papers and rank-ordered them. We computed and included annual average weighted citation score because this controls for the age of an article. A list of the articles with the highest number of total citation and average weighted citation scores is presented in Table 6 (in deceasing order).

The most cited articles (as on 19 January, 2017) are Borensztein, Gregorio and Lee (1998; 6,278 citations), Dunning (1988; 4,858 citations), Dunning (1980; 3,165 citations) and Javorcik (2004; 2,737 citations). The most cited articles are published in JIE, JIBS and *American Economic*

TABLE 6 Most cited articles on foreign direct investment (as on 19 January, 2017)

Rank no.	Author(s) and year published	Total citations	Rank no.	Author(s) and year published	Average weighted citation score
1	Borensztein et al. (1998)	6,278	1	Borensztein et al. (1998)	348.8
2	Dunning (1988)	4,858	2	Dunning (1988)	269.8
3	Dunning (1980)	3,165	3	Javorcik (2004)	228.1
4	Smarzynska Javorcik (2004)	2,737	4	Dunning (1998)	173.5
5	Dunning (1998)	2,378	5	Buckley, Clegg, Cross, et al. (2007)	172.8
6	Vernon (1979)	1,782	6	Görg and Greenaway (2004)	142.9
7	Balasubramanyam et al. (1996)	1,751	7	Haskel, Pereira and Slaughter (2007)	129.3
8	Dunning (2000)	1,750	8	Greenaway and Kneller (2007)	110.8
9	Görg and Greenaway (2004)	1,715	9	Dunning (2000)	109.3
10	Feenstra and Hanson (1997)	1,681	10	Markusen and Venables (1998)	94.35
11	Markusen and Venables (1998)	1,604	11	Feenstra and Hanson (1997)	88.5
12	Buckley, Clegg and Cross (2007)	1,556	12	Balasubramanyam et al. (1996)	87.8
13	Froot and Stein (1991)	1,555	13	Cheng and Kwan (2000)	81.5
14	Cheng and Kwan (2000)	1,304	14	De Mello (1999)	76.6
15	De Mello (1999)	1,303	15	Branstetter (2006)	71.1

Review, thus not strictly confined to business journals. The cross-disciplinary focus of research is encouraging, indicating the promise and prominence of FDI as a research area.

5 | DIRECTIONS FOR FUTURE RESEARCH

This paper explains different types of theoretical and methodological approaches of research on FDI. Even though extensive research is taking place on FDI, significant gaps can be found in the literature. We find that only 15% of the articles we reviewed explicitly build, develop or contribute to theory; the majority tend to describe the findings from an empirical test. Moreover, the focus of most of the studies was macroeconomic variables, not really international business constructs, although there are some notable studies based on the direct and spillover effects of FDI on multinational business. This is because most researchers have relied upon secondary data, not firm-level primary data.

1. In sum, inward FDI and outward FDI are found to be the most widely used constructs in FDI research.
2. Although researchers have introduced new theories and constructs, it appears other theories have not captured the same level of attention as Dunning's OLI theory and related work.
3. We found that not many scholars have discussed how a firm's FDI mode choice (joint venture or subsidiary) influences post-FDI decisions and performance, although there are a few studies (e.g., Andersson, Forsgren, & Holm, 2002). Therefore, there is scope for firm-level studies particularly performance analysis of international acquisitions, joint ventures etc., taking into account recent surge in this area.
4. We also found most studies focused on a single country. It would make sense, to carry out cross-country analysis either for a group of countries or for two countries with similar or dissimilar features and compare the findings.
5. There is need for theory-based rationale for the selection of countries, to justify methodological approach.
6. Continuing to introduce new forms of contingency models is another approach, which may boost the growth of FDI research. This can be applied while investigating research questions such as—What explains the choice between acquisitions and green-field investment? Or what determines the choice between a joint venture and wholly owned subsidiary? Or why do the firms prefer FDI in long run, versus exports in short run?

Other specific suggestions for future research in the area of FDI are as follows:

1. Examine FDI characteristics, antecedents and outcomes simultaneously. Simultaneous equations framework or partial least square methods etc. can be employed as analytical tools.
2. Supplement Dunning-dominated research (Dunning, 1988) with other theories, to generate new knowledge.
3. Expand existing FDI research to explore the costs of doing business at firm, industry and country levels.
4. Carry out research on bilateral FDI flows using the latest database created by United Nations Conference on Trade and Development (UNCTAD) and compare with a set of countries.

5. Build on research on the relationship to FDI to explore critical channels of technology transfer and increased competition.
6. Last, but not least, we feel the need for robust theories to explain the process and determinants of outward FDI from emerging countries, taking into account the surge in OFDI from those countries in the recent years. This becomes imperative, as the most known theories of FDI (including Dunning's theories and Vernon's PLC theory) were postulated and popularised based on the outflow of FDI by the multinational enterprises from the developed countries.

6 | CONCLUSION

In this paper, we have identified the most commonly used variables, statistical methods employed, home/host countries and the main journal outlets for empirical research on FDI. We have also identified different approaches and variables used in FDI research to show their impact on home countries and host countries. We found that since the year 2000, there has been a significant rise in scholarly interest and publications on FDI research. It has resulted in a greater integration of multiple theoretical perspectives. This corroborates the fact that the process of globalisation has gathered momentum with substantial increase in foreign investment in the last two decades. This study also point out the gaps in the research area of FDI, which can be taken up as promising directions for future research on FDI.

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