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30 Years of Foreign Direct Investment to China: An Interdisciplinary Literature Review

Abstract

The purpose of this paper is to examine how scholarly research on Foreign Direct Investment (FDI) to the People's Republic of China has evolved and been shaped using bibliometrics analysis of 422 journal articles published in 151 journals between 1979 and 2008 on that topic. The literature is dominated by the fields of Economics, followed by Business and Management, Planning and Development and International Relations, which together account for 95% of all publications. Ten percent of the most productive journals are responsible for 40% of all publications and 63% of all citations received. By means of citation mapping, four main research streams have been identified: (1) the motives and determinants of FDI to China; (2) 'inside' the multinational enterprise (MNE); (3) the impact of MNE activities; and (4) policy implications for the host country. Emerging research streams have been identified as the effects of inward FDI on (i) corporate social responsibility attitudes of domestic and foreign firms, (ii) environmental and climate issues, (iii) the institutional and societal transformation of China, and (iv) the emergence of Chinese MNEs and its impact on the operations of foreign MNEs in China.

Keywords: Bibliometric Analysis, Literature Review, Citation Map, Foreign Direct Investment, China.

1. Introduction

Since the economic reform and opening of the People's Republic of China were initiated in 1979, foreign direct investment (FDI) to China has increased dramatically. While the stock of inward FDI stood at US\$ 1bn by 1980, it was valued at US\$ 327bn stock and FDI flows were US\$ 83bn at the end of 2007 (UNCTAD, 2009a; UNCTAD, 2009b) – a compound annual growth rate of 23.6 per cent. Not surprisingly therefore academic interest on this phenomenon has increased as well (see Figure 1; UNCTAD, 2009b; Web of Science, 2008). One interpretation of the increase in FDI and interest is that China provides a unique business environment, not only due to its size and domestic market growth, but because it has slowly transformed and integrated its once plan-driven and autarkic economy into the global economy (Lardy, 1994; Naughton, 1995; OECD; 2002; Peng, 2003). It is therefore an interesting academic environment to test existing management and international business theories and to gain new empirical insights into the determinants and consequences of inward FDI in China. A strength of international business research is to leverage insights from different fields of research and applying them to the multinational enterprise (MNE) and FDI (Buckley and Lassard, 2005; Shenkar, 2004; Buckley and Chapman, 1996). With this paper we want to attempt an interdisciplinary historiographic bibliometric citation analysis on the research of inward FDI to China.

INSERT FIGURE 1 ABOUT HERE

Since all research can be cyclical (Daniels, 1991), one needs to take an occasional “step back” in order to reflect and examine how scholarly research has evolved, which fields have been

investigated, and assess where future fields of research may lie. Hence, we address three research questions. At core of our research is the question of (1) what are the core research streams that have evolved around the phenomenon of FDI to China? Adjacent to this, we also seek to answer (2) which journals are the most productive and influential in this research field? And (3) which articles and authors have contributed the most to the progress of the field?

We answer these questions by employing an inter-disciplinary historiographic bibliometric citation analysis to reveal patterns in the analyses of research about FDI to China (Garfield, 1963; Small, 1974) and relate our findings to the four main streams of research in international business as identified by Dunning and Lundan (2008a). These are: (1) the motives and determinants of FDI; (2) 'inside' the multinational enterprise (MNE); (3) the impact of MNE activities; and (4) policy implications for the host country. In doing so, we expand on work by Peng et al. (2001), Li and Tsui (2002) and Quer et al. (2007) by analysing a very large sample of literature on FDI to China in an objectified manner and in close relationship to the foundations of international business research, rather than management studies. Further, we outline research patterns and gaps and identify key journals, articles and authors in that field. This paper provides an important contribution for scholars interested in FDI to China as it outlines, structures, and identifies in an objectified manner the key journals, articles and authors in that field. It also provides an overview of the research history and attempts to synthesis and identifies research streams and research gaps.

The remainder of this paper is structured as follows. The next section provides the background and rational for using bibliometric citation analysis in reviewing extant literature. The third section introduces the methodology applied in this research. In Section four we present and discuss our findings and section five concludes this paper.

2. Bibliometric Citation Analysis

Bibliometric citation analysis represents a relatively new form of meta-analytical research or “meta-review” of the literature (Harsanyi, 1993; Kim and McMillan, 2008). Initially, it has been used in a diverse range of disciplines in the science and humanities (Price, 1976; White and McCain, 1989; Wiberley, 2003), and only recently in social science disciplines (Glanzel, 1996) such as communications (Pasadeos et al., 1999), marketing (Arnott, 2007), advertising (Kim and McMillan, 2008), international management (Acedo and Casilla, 2005) and international business (Pillania and Fetscherin, 2009). Bibliometric citation analysis discovers seminal works and illustrates the links between and among them objectively based on numbers of citations received. It allows for the evaluation of the theoretical and empirical development of a research field around a phenomenon (Borgman, 2000; Vassinen, 2006). Bibliometric citation analysis is based on the assumption that researchers publish their most important findings in scholarly journal articles and base their research predominantly on other materials previously published (Van Raan, 2003). The unit of analysis in citation analysis is a citation (Kim and McMillan, 2008). In so doing, this technique goes beyond a simple counting of publications (cf. Peng et al., 2001; Quer et al., 2007) to identify centers of influence and “map out” related research streams (Kim and McMillan 2008).

3. Methodology

Data for our analysis were collected in November 2008 from the *ISI Web of Knowledge* database product called Web of Science, which includes the Social Sciences Citation Index (SSCI). It collects information on journal articles written in English only. We searched publications published over the period 1979 to 2008. The start of the period under investigation marks the beginning of the re-integration of China’s economy in the global

economy and the beginning of the reform and opening policies. As per previous bibliometric research, we considered as publication types ‘research articles’ only (including proceedings papers published in journals) (Van Raan, 2003). In order to collect comprehensive data, we used a two step approach.

First, the publication needed to be classified as an article on the *topic* including a combination of one of the following terms *FDI* or *inward investment* or *investing* or *foreign direct investment* or *direct foreign investment* or *offshoring* as well as *China* or *Chinese*. We searched ‘in topic’ for articles as this allows us to search the title, the abstract, the keywords. To assess the quality of our results we added as a third keyword *MNE*, *multinational enterprise*, *multinational corporation*, and *transnational corporation*, respectively. This alteration brought two new articles to our attention. Through employing these keywords, we are confident to have captured the most relevant academic articles dealing with FDI to China recorded in Web of Science. The search resulted in an initial dataset of 453 articles. However, as some important and relevant journals have been added only recently to the Web of Science database (e.g., *International Business Review*, *Management International Review*), we needed to search for articles in those journals which were published prior to their integration into the Web of Science database. We identified an additional 40 articles which we have manually entered into our database to conduct the bibliometric analysis. We therefore have sample of 493 articles.

In a second step we did a content analysis of the articles in order to “cross-check” if the database identified the right articles for our analysis. We excluded 71 articles which dealt with outward FDI from China, China in general, and other topics, leaving us with 422 relevant articles.¹ The articles were authored by a total of 625 authors and published in 151 journals, with a total of 12,146 cited references, indicating the interdisciplinary nature of the field. For

¹ A complete list of the dataset is available upon request from the corresponding author.

each article we gathered information on author name(s), journal, article title, volume, number, pages, publication date, and cited references.

Following Roper and Parker, (2006) we used a software to facilitate the process of identifying the citation relationships of the articles. The HistCiteTM software is a specific bibliometric tool for analyzing and visualizing direct citation linkages between scientific papers (www.histcite.com). Its inputs are bibliographic records with cited references from the Web of Science. Its outputs are various tables and graphs with informetric indicators about the knowledge domain under study. Thus, genealogic antecedents and descendents of a research field are discovered through citation behaviour and publications that are regularly or heavily cited will emerge through this exercise (Garfield, 2004; Garfield et al., 2003). The analysis through HistCite uses following new terminology which will be used frequently in our reporting: (i) Local Citation Score (LCS) denotes the number of times the article has been cited within the sample; (ii) Global Citation Score (GCS) denotes the number of times the article has been cited in Web of Science (Garfield et al., 2003); (iii) LCS/t = Local Citation Score per year from article publication to the end of the sample period; (iv) GCS/t = Global Citation Score per year from article publication to the end of the sample period.

4. Results and Discussion

In this section, we assess the research areas on FDI to China identified in our analysis and discuss the implications for international business scholars. Before we come to the main part of our analysis, we present an overview of the main disciplines and underlying journals that publish articles on FDI to China to provide the necessary background information.

4.1 Most Influential Journals

The 422 articles we retrieved can be categorised into the five main disciplines of economics (40%), business and management (34%), planning & development (11%), and international relations (10%), which account for about 95% of all publications. We find that despite the high number and diversity of journals (151) in our sample, only few journals dominate and shape the research field of FDI to China. In particular, 10% percent of all journals are responsible for 40% of all publications and 63% of all total local citation received (LCS). The 20% most productive journals have amongst each published 55% of all articles and received 85% of all local citations, respectively. Table 1 summarizes the top 15 journals (top 10%) in terms of total number of articles published (P) and the number of citation received within the retrieved articles per year (LCS/t). The most prominent international business journals are the *International Business Review (IBR)*, *Journal of International Business Studies (JIBS)*, *Journal of World Business (JWB)*, and *Management International Review (MIR)*. These finding reflect the high standing of those journals in the community of international business and management scholars and its dedication to MNEs and FDI (DuBois and Reeb, 2000). Journals from economics and planning & development, however, dominate the lists of the most productive and influential journals. These results suggest that international business scholars gain more insights and knowledge from other fields of study (such as economics) than other fields do from international business. Although the exploration and exploitation of other fields of study represents a strengths of international business (Buckley and Lessard, 2005), the underrepresentation of articles published in IB journals in this ranking indicates the young age of this field of study and that it is not leading inter-disciplinary discourses yet (Hambrick and Chen, 2008).

INSERT TABLE 1 ABOUT HERE

To investigate these findings further, we assess the relative importance of each journal. To do this, we take the number of articles published in a journal as a proxy of productivity and the total local citations received per year (LCS/t) as a proxy for impact in the research field. We then calculate the mean across all journals which allows us to categorise journals into one of four groups as illustrated in Figure 2. The x-axis represents the total number of articles published on the topic and the total local citations received per year are shown on the y-axis. Of the 151 journals in our dataset, 101 journals are of below the average productivity (2.79 articles) and impact (0.54 average citations per year) levels (Quadrant 1). There are 28 journals which are above average productivity and impact (Quadrant 4); 5 journals which are above average impact but not productivity (Quadrant 3); and 17 which are above average productivity only (Quadrant 2).

The most productive and influential journals are *International Business Review* (IBR), *Journal of International Business Studies* (JIBS), *Journal of World Business* (JWB), and *Management International Review* (MIR) in international business discipline; the *China Economic Review* (CER), *World Economy* (WE), *Journal of Comparative Economics* (JCE) and *World Economy* (WE) among economics journals; *Regional Studies* (RS) and *Urban Studies* (US) among planning and development journals. Amongst the journal in this top quadrant, *JIBS* is the most cited journal across all disciplines. *IBR* receives similar number of citations as *JWB* and *MIR* but lags *MIR* in terms of published articles. Productive but not often cited journal are *Issues and Studies* (I&S) and *China & World Economy* (CWE).

INSERT FIGURE 2 ABOUT HERE

4.2 Historiographic Author Citation Mapping

In this section we extend the earlier findings by looking in-depth at the articles published between 1979 and 2008 by employing historiographic bibliometric citation mapping.

Consistent with the overall methodology used so far, we take the total number of local citation received from the retrieved article collection (LCS) as the unit of analysis. We limit our analysis to articles that have received at least $LCS > 5$ leaving us with 49 articles². In Figure 3, the vertical axis represents the year and the number of papers published in that year (in parentheses). On the horizontal axis, articles with a $LCS > 5$ are displayed for each year. Each node represents an article node or appears as a “hub” in the sense of Garfield et al. (2003), that is, a document citing many other documents in the domain. The size of each node is relative to the number of local citations received. The larger a circle is the more citation that paper has received. An arrow pointing from one node to another indicates a citation relationship between papers. Articles without an arrow pointing towards them are not cited by any other visualized article of our sample taken for this figure (i.e. article 49) but by articles in overall our sample (i.e. article 422). The visualization in Figure 3 reveals a clustering around four research streams. The four main research streams identified in our research reflects in fact the four main issues developed in the theory of international business (Dunning and Lundan, 2008a): The motives and determinants of FDI; inside the multinationals; the impact of MNE activities, and policy implications for the host country.

INSERT FIGURE 3 ABOUT HERE

² Appendix 1 provides a Table with the article and authors most cited.

The following sections provide a detailed discussion about each research stream identified and the underlying articles. For readability and clarity purposes, we provide in our text below in parentheses [] also the article number mentioned in the Figure 3.

4.2.1 Motives and determinants of FDI to China

The literature identifies four types of foreign investment motivations: natural resources seekers, market seekers, efficiency seekers, and strategic asset seekers (Dunning, 1988). These motivations have to be considered in relation with the main determinants of FDI. The latter may be explained thanks to the major contribution of the theoretical developments published over the last 50 years, in particular the internalisation theory (Coase 1937; Penrose, 1959, Buckley 1990, Buckley and Casson, 1976, Dunning, 2003), the eclectic paradigm (Dunning 2001) and the macroeconomic approaches (Kojima, 1982; Kojima and Ozawa 1984). These theories are useful to understand the location choice of foreign investment in and across China (see for instance Wu and Strange, 2000 or Luo and Tan, 1997). In particular, regulatory changes and reforms have improved the location specific advantages of China (Zhang, 1994 [18]). These, however, have not been applied uniformly across the country over time. A prominent example here is the establishment of special economic zones in selected coastal areas in the mid-1980s. This and local-bound endowments have lead to FDI being clustered in certain areas. Thus, Head and Ries (1996 [42]) find that Chinese policy that supported the development of infrastructure and an industry base are positive determinants of city attractiveness for future FDI which, in turn, acts as a trigger for more inward investments (i.e., agglomeration effects). This finding is generally supported by province-level studies (e.g., Cheng and Kwan, 2000 [118]; Fung et al., 2002 [178]; Zhang, 2001 [142]). Of additional importance are determinants of economic development and prosperity (e.g., Broadman and Sun, 1997 [58]; Coughlin and Segev, 2000 [114]), levels of education (e.g.,

Broadman and Sun, 1997 [58]; Fung et al., 2002 [178]; Zhang, 2001 [142]), wage costs (e.g., Cheng and Kwan, 2000; Coughlin and Segev, 2000), the institutional environment and support in a Chinese province (e.g., Zhang, 2001), and the coastal proximity of the province (e.g., Coughlin and Segev, 2001; Wei et al., 1999 [107]). These determinants are broadly accepted and reflect well insights gained from empirical and conceptual studies for other countries (cf., Dunning, 2001; Dunning and Lundan, 2008a). There exist, however, differences in the investment location among MNEs. Although this is not explicitly stated in this macro-economic literature, these differences can be explained by the investment motivation of the firm and strategic and competitive concerns. Thus, the finding by Fung et al. (2002) that Japanese investors tend to be affected by labor quality while investments from Hong Kong and Taiwan are determined by physical infrastructure can be readily explained. Typically, efficiency-seeking investments by Hong Kong and Taiwanese firms in China are labour-intensive and export-oriented while market- and resource-seeking Japanese investments tend to be of higher value-added and research and development intensity and therefore need better educated workforces. The strategic and motivational effects are also highlighted in other studies. Belderbos and Carree (2002 [172]), for example, state that Japanese firms are attracted to locations in China which are already host to other Japanese firms and Keiretsus. Finally, the determinants and motivations are not static but change over time as the business and institutional environment change and firms have to adapt to sustain competitive and identify localities which best support their particular strategic needs (Sun et al., 2002 [162]).

This research on the motives and determinants of FDI to China has provided significant explanations for the spatial distribution of MNEs. By identifying national and sub-national determinants, important drivers have been identified that can inform policy makers in China

(and elsewhere) as well as help structuring future research (Henley et al., 1999 [95]). In particular, research that relies on national level data has important shortcomings in terms of pointing out accurately what attracts foreign investors to a location and struggles in incorporating sub-national nuances in directions of economic and institutional development (Peng, 2003; Krug and Hendrischke, 2008). Although this is true for any study, it is exuberated for a country that is as large and diverse as China. Thus, for the case of China, there is an increasing need for research on so-called ‘second and third tier cities’ to identify their locational (dis-)advantages and attractiveness for MNEs. Such research would shift the focus from the historic ‘hot-spots’ for inward FDI such as Shanghai, Shenzhen, and Guangzhou to cities in the periphery and hereby providing a further level of detail. This research would also contribute to issues around ‘inside the multinational’ once it has established itself in China.

4.2.2 Inside the Multinationals

The entry and expansion strategies of MNEs in specific countries constitute another stream of research in the field of international business (Chen and Hu, 2002; Pan and Li, 1998). Indeed, FDI has to be considered as part of the institutional and organizational strategy of firms (Dunning and Lundan, 2008a). For instance, as stated by Björkman et al. (2008), a central question in research on MNEs is the extent to which foreign subsidiary operations resemble those of the parent organization. The organization and the configuration of the value chain activities are among the main core of the MNEs activities. This determines the main entry strategies into foreign value-added activities which may be pursued by MNEs as well as post-entry reorganisation and impacts on domestic firms (Zhou et al., 2002 [150]). According to Chaney and Gamble (2008), often the choice of entry method has been dependent on the political situation with many less developed countries legislating against foreign ownership of

land and buildings and restricting location to protect domestic firms. Furthermore, most of FDI in China has traditionally taken the form of joint ventures (JVs) between local and foreign firms (Beamish and Wang, 1989 [6]; Demir and Söderman, 2007). “Given the large size and rapid growth of foreign direct investment in China, the subject of ownership preferences is of great interest to academics as well as to firms intending to invest in China” (Zhao and Zhu, 1998, p. 569 [67]). The early preference for JVs has derived from the institutional requirements, the perceived levels of uncertainty or risks, and the MNEs’ aspirations to reduce overall transaction costs (Pan, 1996 [30]). By having a local partner these issues can be reduced to a level acceptable for a direct investment (Shan, 1991 [9]). The geographic and cultural distance between the investor and the location of investment within China is hereby of less importance at the point of market entry (Ellis, 2007). Hence, the host country’s business and institutional environment is critical for the choice of market entry which, in turn affects success and survival (Tse et al., 1997 [50]; Luo and Peng, 1999 [92]; Shan, 1991 [9]). Early entrants into the Chinese markets and those that are more committed to technology transfers have had significantly higher market shares and profitability than late entrants (Pan and Chi, 1999 [96]; Pan et al., 1999 [91]; Isobe et al., 2000 [108]). While early investors take higher risks in investing in a market that is in institutional transition and largely unknown to them (Peng, 2003; Shan, 1991), they establish themselves in the market and get integrated into local business and government networks (Johanson and Vahlne, 2009; Andersson et al., 2005). They thus benefit from insidership and the possibility of co-shaping the institutional evolution (Johanson and Vahlne, 2009; Kostova and Zaheer, 1999). This has been evident in China in the form of special government concession in terms of market access, investment formation, and competitive structure (Pan and Chi, 1999). The level of acquaintance with the local environment as an indicator of performance is also highlighted by Meschi (2004) who found that French-Sino JV have a better market evaluation better if the

French company has acquired host country experience rather than wider host region (i.e. Asian) experience. The higher profitability of equity joint ventures in comparison to either wholly owned operations or contractual joint ventures during this period (Pan and Chi, 1999; Pan et al., 1999) is explainable along the same rational as the local partner has a monetary incentive and self-interest in integrating the foreign partner quickly. Regulatory ownership restrictions have been eased in China, especially after the WTO accession in 2001. The principal entry mode into China has changed and subsequent reorganisation of affiliates and JVs has taken place (Xia et al., 2008; Zhang and Li, 2001). These changes towards greater control by the MNE reflect adjustments in the institutional environment, firm strategies, and the competitive environment (Cheung and Leung, 2007). Zhang and Li (2001), for example, attribute improvements in JV performance to increasing levels of JV autonomy. This has implications for the trust relationship between the foreign headquarters, the JV, and the domestic partner. They may also indicate that the overall transaction costs of doing business in China remain high even after attracting foreign investors at a significant scale for 30 years.

4.2.3 Impact of MNE activities

A major part of academic research on MNEs activities is concentrated on the impact of MNEs in their host country. The spectrum of areas of interest is wide including micro analysis of the direct and indirect spillovers on domestic firms, institution and labour as well as the macro effects on growth, development and trade (Björkman and Kock, 1995; Liu et al., 2001).

According to Buckley et al. (2007a, p. 143), “there is little controversy within existing theoretical research on the causes of spillovers, but a considerable amount of debate within empirical work to date, largely because the evidence on spillovers remains stubbornly inconclusive”. Studies on the impact of FDI are very relevant for policies and firms, as, “like governments in many other countries, the Chinese government pays special attention to the

impact of FDI, using the effects of FDI on local firms as a criterion to measure the success of its FDI policy” (Zhou et al., 2002, p. 467). Thus, the positive influence of FDI on productivity growth in China’s special economic zones (Liu, 2002 [179]) and nationwide (Buckley et al., 2002 [156]; Wei and Liu, 2006 [295]) act as confirmatory studies to the specific policies implemented by the Chinese government and as advised by international organisations such as UNCTAD and the World Bank. However, not every foreign investment does generate spillovers or with the same intensity. Buckley et al. (2002) find that Western and Japanese MNEs create both technology and market access spillovers while overseas Chinese firms provide only the latter. Similarly, Wei and Liu (2006) find positive intra- and inter-industry productivity spillover from FDI to China. These are, however, region-bound and the inter-industry strength is weaker for overseas Chinese firms than for OECD firms. While the motivation and strategy of the investing MNE is of importance, so is the scope for efficiency spillovers to domestic firms which depend also on the capabilities of the local firms to absorb the new knowledge (DeMello, 1997 [61]).

Besides the direct affects on local firms, through the increases in domestic productivity by increasing competition and transferring knowledge and know-how to Chinese firms, FDI generally contributes to economic growth (Chen et al., 1995 [26]). Thus, regardless of the source of FDI, it has, from a macro-economic country perspective, contributed to China’s economic growth and also positively contributed to domestic investments (Chen et al., 1995; Sun, 1998 [82]). Sun (1998), for example, finds that over the period 1983 to 1995 FDI contributed directly seventeen percent to the GDP growth in China’s coastal region. FDI also contributed significantly to domestic investments and employment creation and therefore indirectly supported economic growth. Given the agglomerative nature of FDI in China, this contribution has mainly been identified in the coastal provinces which have attracted most

FDI and supported the imbalanced economic growth and institutional reforms in China (Sun, 1998; Chen et al, 1995). Indeed, MNEs are attracted to locations which can offer the institutional and physical infrastructure that helps them to exploit their firm specific advantages by fine-slicing their business activities (Buckley, 2009a). As a consequence spillover effects and therefore productivity gains are hard to find in inner provinces (Fleisher and Chen, 1997 [60]). Further, challenging impacts from FDI are of environmental and fiscal nature. Sun (1998) reports that the Chinese government and firms have not been able to reap all potential benefits from the presence of MNEs because of their transfer pricing practices (i.e., tax losses and overpaying).

4.2.4 Policy Implications for the Host Country

The previous section was dedicated to the findings regarding the ways in which the value-added activities of MNEs have been found to impact Chinese companies or the Chinese economy. This issue induces another one which is dedicated to the implication for policy in host as well as in home countries. This issue is important for MNEs, as Sanyal and Guvenli (2000) found, for instance, that the performance of the subsidiary is influenced by the quality of the relationship with the host government. Although the interaction between governments and MNEs is a dynamic and iterative process, the literature has identified the main attitudes formed, and actions taken by governments, both towards and as consequences of, MNEs activities (Dunning and Lundan, 2008a; UNCTAD, 2008b). For instance, intellectual property regulation in China has evolved with external pressures (Bosworth and Yang, 2000). Another, broader, policy area is centred on the concerns of China's attractiveness to MNEs and the best utilisation of investments (cf., Gugler and Brunner, 2007). China has been attracting inward FDI since the late 1970. The amount of investment attractable by the policy changes and the broader business environment as well as the amount it 'should' and could receive have been

disputed. Wei (1995 [28]) argues that until the early 1990s FDI from the industrialised countries France, Germany, UK, and USA was underrepresented but showed signs of an upward trend. The reasons for underperforming are related to the local specific advantages of China as well as the strategic motivation behind an investment. These issues have been picked-up by UNCTAD and the World Bank. UNCTAD is devoting a significant part of its annual *World Investment Report* to host country policy changes and their implications on FDI flows and the World Bank is conducting an annual survey on “*Doing Business in...*” specific countries such as in China (World Bank, 2009). Both explicitly carry a policy notion of improving the institutional environment to benefit better from the integration into the global economy. The next policy dimension, regardless of whether an inward FDI potential has been fulfilled or not, is concerned with the utilisation of FDI. Integrating the host economy into the global economy and international supply chains (Chen and Chen, 1998 [69]) and reaping spillovers can have positive developmental effects (Buckley, 2009b). This, in part, depends on the positing of the investing firm in the global value chain (Buckley, 2009a; Buckley and Casson, 2009) but also on the nature of the investment. However, as alluded to earlier, non complementary FDI or ‘wrongly allocated’ FDI can contribute to economic disparities. China has grown significantly across all provinces since 1979. The coastal provinces which have attracted the majority of FDI have benefited the most. This has magnified the income and economic development differences between provinces (Chen and Fleisher, 1996 [36]; Fleisher and Chen, 1997 [60]) which has potentially negative social implications. From a policy maker perspective, it is therefore interesting to ‘direct’ FDI in a way that such disparities are kept to a minimum while MNEs can still take advantage of agglomeration effects and domestic market opportunities.

4.2.5 Possible Future Research Streams

The previous analysis decomposed and structured the current research field on FDI to China along the main research areas in international business. In doing so, areas become visible that have been heavily researched. Likewise, areas that currently underdeveloped and offer opportunities for international business scholars to explore come to light. We have briefly discussed intra-group shortcomings above, build here on this and propose that the following themes need further attention, namely: FDI and environmental issues; FDI and corporate social responsibility; FDI and social impacts; FDI and institutional transformation in China; and FDI and the growth of the Chinese MNE. Inward FDI to developing countries is often accused for negatively impacting the host country by exploiting low environmental standards to shift polluting production processes from countries where these are prohibited (He, 2006; Cole and Elliott, 2005). Further, after relocating polluting facilities, MNEs could engage in institutional spillover and seek to secure an institutional environment that is favourable for them. China has a track record of environmental incidences and low practical environmental standards despite having a written book law (Ross, 1998). The extent to which environmental regulation can be and has been shaped and exploited in China by MNEs is therefore an important research topic. In particular, MNEs seek to exploit their technological superiority while need to ensure that their product quality and standards are comparable globally. From this perspective MNEs should have a self-interest in supporting and enforcing strict environmental regulation. Environmental issues have gained new momentum with the advancement of greenhouse gas measurements and the global debate on climate change. The extent to which relocation and operation of foreign businesses to China has contributed to China's increases in greenhouse gases raise research questions that relate well to the all research streams discussed above. These topics are related to corporate social responsibility (CSR) in China which addresses the 'inside of the multinational'. MNEs can bring global CSR practices to China and support the growth of CSR initiatives in cooperation with their

Chinese suppliers and customers and by advising policy makers (i.e., institutional spillover) (cf. Christmann and Taylor, 2001). This needs to be done in accordance and respect of local traditions and specificities. Social issues such as labour treatment are a sub-category of CSR. This can be linked to research and further stimulate research on the interaction between ownership-advantages of foreign MNEs in China and location-advantages of Chinese regions. The analysis of the role of clusters as an attractive nest for foreign affiliates in China would help to understand the motivation of foreign investment as well as the impact and spillover effects of the MNEs activities in Chinese clusters as well as the opportunities offered by those clusters to foreign affiliates. This topic would reflect the proposals to focus more on the relationship between location and investment (Dunning, 1998). Further, policy implications from FDI derive from the institutional transformation of China. Institutional change has happened on the national and sub-national levels in China at different paces (e.g. Krug and Hendrichske, 2008). Assessing the influences MNEs have as institutional entrepreneurs (cf. Child et al., 2007) on this process will inform us on where China is heading towards in terms of its political and economic systems and what this will mean to foreign and domestic businesses as well as with regards to the research streams mentioned above. This would support recent research that has emphasised the increasing role of institutions in international business development and the need to adopt an institutional approach that tries to bridge both the macro and micro levels of analysis to understand location choices and strategies of MNEs (Dunning, 2008; Dunning and Lundan, 2008b). For the time being, researches on FDI to China do not have analysed extensively this issue which are particularly significant in the case of China as a host country since the particular features of Chinese institutions are playing a significant role in the way foreign as well as Chinese firms are doing business in China. Finally, Chinese firms begin to be integrated into the world economy and are increasingly venturing abroad. The latter is partly caused by the affects of inward FDI, the domestic

institutional environment and their own capacity (Child and Rodrigues, 2005; Buckley et al., 2007b). Of these effects, the link to inward FDI and the interaction with foreign firms is least well researched. This link contains potentially important empirical and theoretical insights in the creation of (developing country) MNEs that can inform policy makers in other countries and inform our understanding about the lasting competitiveness of these firms. In addition the consequences for the operations of foreign MNEs within and towards China have been neglected so far. As a corollary, the rapid economic development of China as well as of outward FDI and inward FDI from and to China could be analysed more intensively on the basis of the investment development path (IDP). Some researchers have already tried to use the IDP theory and to apply it to China but the main analyses focus is on either FDI to China or FDI from China. A thorough overall analysis of both FDI trends on the basis of the IDP is missing (Gugler and Boie, 2009).

5. Conclusions

This paper provides an important contribution as it identifies and structures the research field of FDI to China into four research areas that are closely related to common themes in international business, namely (1) the motives and determinants of FDI; (2) inside the multinationals; (3) the impact of MNE activities; and (4) policy implications for the host country. This is achieved by an interdisciplinary historiographic bibliometrical analysis of 422 academic articles published by 625 authors in 151 journals. Building on our findings, we propose emerging research areas around the issues of FDI and environmental issues; FDI and corporate social responsibility; FDI and social impacts; FDI and institutional transformation in China; and FDI and the growth of Chinese MNEs.

Our research findings as well as the limitations to our approach point to opportunities for future research. While our dataset is comprehensive, is it not exhaustive. Future research may

assess the possible relationship and cross-fertilisation between FDI to China and academic articles about that topic to identify the connectivity and influence potential of the academic ‘ivory tower’ on real life business issues. Another avenue is to attempt to extend the number of journals and articles to include books and book chapters as well as non-English publications and provide an even more holistic picture. We did not exclude self-citations in our analysis. While this is common practice, future research may exclude self citation to have a better assessment of the importance of an article. Finally, despite its high degree of objectivity, bibliometric citation analysis contains a critical portion of subjectivity (Van Raan, 2003). In particular, we selected the search terms and the time period. Also we used the a specific bibliometric software HistCite™ to analyze and visualize the direct citation linkages between articles, a thorough content analysis was required to identify the various research streams and the currently underdeveloped areas as well as the merging research. Finally, interesting avenue of research is to compare extant research on FDI to China with research on FDI to other countries. Identifying communalities in the antecedents can help to determine the extent to which context-specific studies encapsulate themselves from mainstream research. Current research is too often focusing on one country only and hereby may oversee important insights from and differences to other countries. In consequence, theorising as well as informing policy-makers and companies may be undermined.³

Regarding the typical outlet for FDI to China research, our results show that 10% percent of the 151 journals are responsible for 40% of all publications and 63% of all local citation received. This is an interesting observation that indicates that there are a small number of journals of perceived high quality that is informing other scholars. Moreover, they come from different disciplines such as Economics, International Business and Planning and

³ We are thankful to our reviewer to point this out.

Development among others. In fact, only a small number of journals are classified as international business publications, such as *International Business Review* (IBR), *Journal of International Business Studies* (JIBS), *Journal of World Business* (JWB), and *Management International Review* (MIR). The other highly ranked journals which published about this topic are from economics and planning and development such as *China Economic Review*, *Journal of Comparative Economics*, *Journal of International Economics*, *Regional Studies*, *Urban Studies*, *World Development*, and *World Economy*. This has important implications for academics who conduct research on that topic that they have to search for articles outside their discipline and for academics who would like and need (e.g. tenure track) to get their articles published in highly visible and 'acceptable' outlets. Moreover, the identification of these journals as publishing the kernel research on FDI to China research is a helpful orientation for anybody conducting research on this topic. It highlights the diversity and interdisciplinary of research on the topic from which international business research could benefit if it were able to increase its interaction and cross-fertilization with other disciplines. Likewise, it points to new potential outlets for our research.

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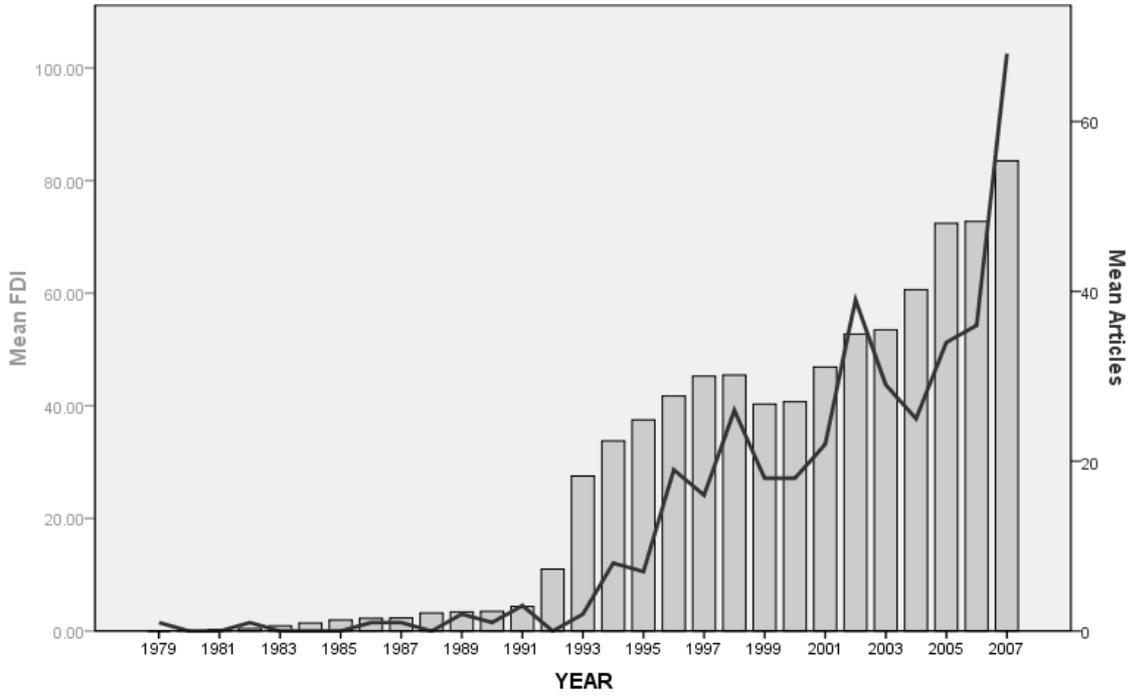
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Figure 1

China's inward FDI and related academic journal articles



Sources: UNCTAD (2009b) and Web of Science (2008)

Table 1

Ranking of Most Productive and Influential Journals

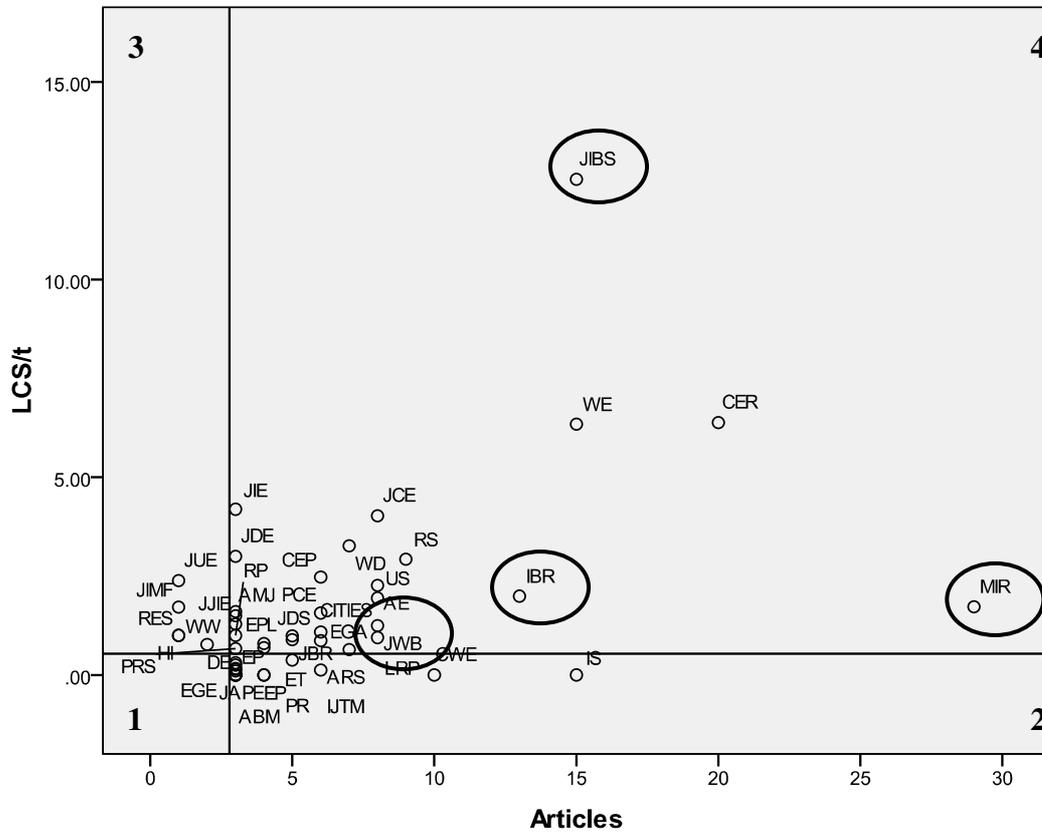
| Ran k | Journal | P | Journal | LCS/t |
|------------------|----------------|----------|----------------|--------------|
| 1 | MIR | 29 | JIBS | 12.53 |
| 2 | CER | 20 | CER | 6.38 |
| 3 | I&S | 15 | WE | 6.34 |
| 4 | JIBS | 15 | JIE | 4.19 |
| 5 | WE | 15 | JCE | 4.03 |
| 6 | IBR | 13 | WD | 3.27 |
| 7 | CWE | 10 | JDE | 3 |
| 8 | RS | 9 | RS | 2.93 |
| 9 | AE | 8 | CEP | 2.47 |
| 10 | JCE | 8 | JUE | 2.38 |
| 11 | JWB | 8 | AE | 2.27 |
| 12 | LRP | 8 | IBR | 1.99 |
| 13 | US | 8 | US | 1.95 |
| 14 | EGE | 7 | MIR | 1.72 |
| 15 | WD | 7 | JIMF | 1.71 |

Legend:
P: Articles publishes
LCS/t: Total citations received per year within our sample

| | | | |
|------|---|------|--|
| AE | APPLIED ECONOMICS | JIE | JOURNAL OF INTERNATIONAL ECONOMICS |
| CEP | CONTEMPORARY ECONOMIC POLICY | JIMF | JOURNAL OF INTERNATIONAL MONEY AND FINANCE |
| CER | CHINA ECONOMIC REVIEW | JUE | JOURNAL OF URBAN ECONOMICS |
| CWE | CHINA & WORLD ECONOMY | JWB | JOURNAL OF WORLD BUSINESS |
| EGE | EURASIAN GEOGRAPHY AND ECONOMICS | LRP | LONG RANGE PLANNING |
| I&S | ISSUES & STUDIES | MIR | MANAGEMENT INTERNATIONAL REVIEW |
| IBR | INTERNATIONAL BUSINESS REVIEW | RS | REGIONAL STUDIES |
| JCE | JOURNAL OF COMPARATIVE ECONOMICS | US | URBAN STUDIES |
| JDE | JOURNAL OF DEVELOPMENT ECONOMICS | WD | WORLD DEVELOPMENT |
| JIBS | JOURNAL OF INTERNATIONAL BUSINESS STUDIES | WE | WORLD ECONOMY |

Figure 2

Productivity and Impact Matrix of Journals



Source: Web of Science (2009).

Notes:

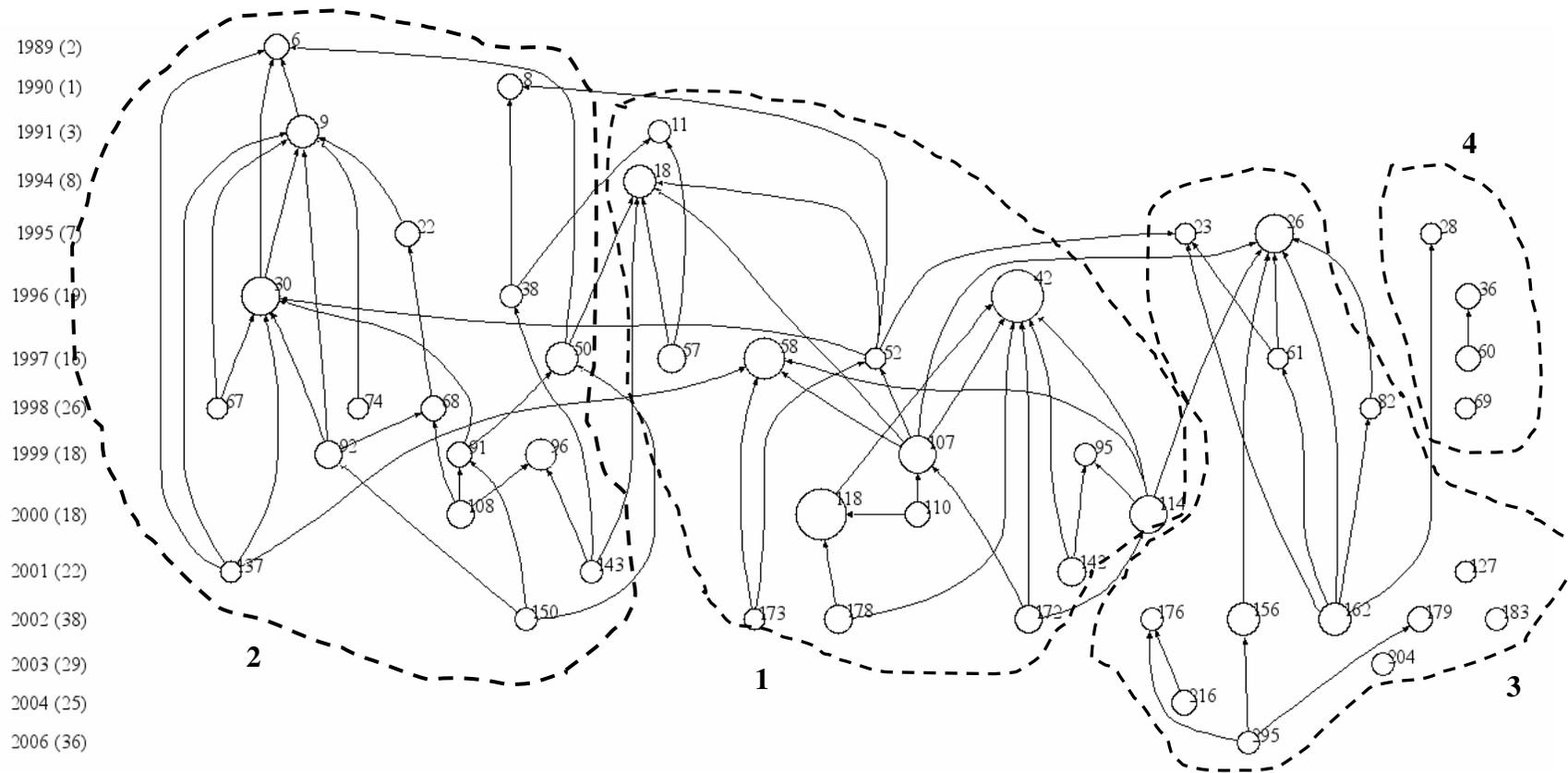
For illustrative purposes we have not shown the 101 journals in quadrant 1.

X-axis represents the total number of articles published on the topic.

Y-axis shows the total local citations received per year.

Figure 3

Citation map of journal articles with LCS>5



N: 49 articles

Note: This Figure shows research of similar focus by illustrating highly cited articles that reference each other. The broken lines indicate that research groups are not solid and static entities but benefit from the knowledge exchange with others and contribute to other streams of research. Most of these articles have been referenced in our text, as indicated with [].

Appendix 1

Selection of Top 15 Articles (sorted by LCS)

| # | Author(s) / Year / * | Journal Name | Impact Factor | LCS |
|----|--|--|---------------|-----|
| 1 | Head and Ries (1996 [42]) | Journal of Urban Economics | 1.46 | 31 |
| 2 | Cheng and Kwan (2000 [118]) | Journal of International Economics | 1.724 | 30 |
| 3 | Broadman and Sun (1997 [58]) | World Economy | 1.294 | 20 |
| 4 | Chen, Chang and Zhang (1995 [26]) | World Development | 1.392 | 18 |
| 5 | Pan (1996 [30]) | Journal of International Business Studies | 2.992 | 17 |
| 6 | Coughlin and Segev (2000 [114]) | World Economy | 1.294 | 16 |
| 7 | Wei, Liu, Parker and Vaidya (1999 [107]) | Regional Studies | 1.797 | 15 |
| 8 | Buckley, Clegg and Wang (2002 [156]) | Journal of International Business Studies | 2.992 | 13 |
| 9 | Tse, Pan, Au (1997 [50]) | Journal of International Business Studies | 2.992 | 13 |
| 10 | Shan (1991 [9]) | Journal of International Business Studies | 2.992 | 13 |
| 11 | Sun, Tong and Yu (2002 [162]) | Journal of International Money and Finance | 0.86 | 12 |
| 12 | Zhang (1994 [18]) | World Development | 1.392 | 12 |
| 13 | Pan and Chi (1999 [96]) | Strategic Management Journal | 1.897 | 11 |
| 14 | Fung, Iizaka and Parker (2002 [178]) | Journal of Comparative Economics | 0.897 | 10 |
| 15 | Zhang (2001 [142]) | Contemporary Economic Policy | 0.456 | 10 |

* Note: The figures in the squared parentheses indicate the node in Figure 3.